



Victor Valley Wastewater Reclamation Authority
Discharge Monitoring Report 2009

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SECTION 3

FREEBOARD LEVELS

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INTENTIONALLY
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VVWRA
Freeboard Levels
2009

JANUARY

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	14.0	15.0	11.0	11.0	11.0	10.0	5.1	5.2		5.3
2	14.0	15.0	11.0	11.0	11.0	10.0	4.5	4.7		5.3
3	14.0	15.0	11.0	11.0	11.0	10.0	5.4	5.6		5.3
4	14.0	15.0	11.0	11.0	11.0	10.0	5.0	5.2		5.4
5	14.0	15.0	11.0	11.0	11.0	10.5	4.7	4.8		5.3
6	14.0	15.0	11.0	11.0	11.0	10.5	4.6	4.7		5.4
7	14.0	15.0	11.0	11.0	11.0	10.5	5.4	5.6		5.3
8	14.0	15.0	11.0	11.0	11.0	10.5	5.4	5.6		5.4
9	15.0	15.0	11.0	11.0	7.3	10.0	5.4	5.6		4.9
10	15.0	15.0	11.0	11.0	7.3	10.0	5.4	5.6		4.8
11	15.0	15.0	11.0	11.0	7.3	10.0	5.0	5.2		5.4
12	15.0	15.0	11.0	11.0	6.9	10.0	5.1	5.2		5.4
13	14.0	15.0	11.0	11.0	6.5	10.0	5.1	5.2		5.4
14	14.0	15.0	11.0	11.0	6.5	10.0	5.4	5.6		5.4
15	14.0	15.0	11.0	11.0	6.5	10.0	4.9	5.0		5.3
16	14.0	15.0	11.0	11.0	6.5	10.0	5.4	5.6		5.4
17	14.0	15.0	11.0	11.0	6.5	10.0	5.1	5.2		5.4
18	14.0	15.0	11.0	11.0	8.3	10.0	4.5	4.7		5.3
19	14.0	15.0	11.0	11.0	8.3	10.0	5.0	5.1		5.3
20	14.0	15.0	11.0	9.5	8.3	10.0	4.6	4.7		5.3
21	14.0	15.0	11.0	9.5	8.3	10.0	5.4	5.5		5.3
22	14.0	15.0	11.0	10.5	8.5	10.0	5.4	5.5		4.8
23	15.0	15.0	11.0	10.0	8.8	10.0	5.4	5.6		4.9
24	15.0	15.0	11.0	10.0	8.8	10.0	5.0	5.2		5.2
25	15.0	15.0	11.0	10.5	8.8	10.0	5.0	5.2		5.4
26	15.0	15.0	11.0	10.5	8.8	10.0	5.1	5.2		5.4
27	15.0	15.0	11.0	10.5	8.8	10.0	5.1	5.2		4.9
28	15.0	15.0	11.0	10.0	9.0	10.0	5.4	5.6		4.9
29	15.0	15.0	11.0	10.0	9.0	9.5	5.4	5.6		5.4
30	14.0	15.0	11.0	10.0	9.0	10.0	5.4	5.6		4.9
31	14.0	15.0	11.0	10.0	9.0	10.0	5.4	5.6		5.0
AVG	14.4	15.0	11.0	10.6	8.7	10.0	5.1	5.3		5.2
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

FEBRUARY

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	14.5	15.0	11.0	10.5	9.5	9.5	5.4	5.6		5.4
2	14.5	15.0	11.0	10.5	9.5	9.5	5.4	5.6		4.9
3	14.5	15.0	11.0	10.5	9.5	9.5	5.4	5.6		5.0
4	14.5	15.0	11.0	10.5	9.5	9.5	5.4	5.6		5.4
5	14.5	15.0	11.0	10.5	9.5	9.5	5.0	5.2		5.4
6	14.5	15.0	11.0	10.0	9.5	9.5	5.4	5.5		5.3
7	14.5	15.0	11.0	10.0	9.5	9.5	5.4	5.5		5.3
8	14.5	15.0	11.0	10.0	9.5	9.5	5.4	5.6		4.9
9	14.5	15.0	11.0	10.0	9.5	9.5	5.1	5.3		4.4
10	14.5	15.0	11.0	10.0	9.8	9.8	5.1	5.2		5.4
11	14.5	15.0	11.0	10.5	9.8	9.8	5.4	5.6		5.4
12	14.5	15.0	11.0	10.5	9.8	9.8	5.4	5.6		5.4
13	14.5	15.0	11.0	10.5	9.8	9.8	4.7	4.9		5.4
14	14.5	15.0	11.0	10.5	9.8	9.8	5.0	5.1		5.4
15	14.5	15.0	11.0	10.5	9.8	9.8	5.4	5.5		5.4
16	14.5	15.0	11.0	10.5	9.8	9.8	5.0	5.2		5.3
17	14.5	15.0	11.0	10.5	9.8	9.8	4.6	4.8		5.3
18	14.5	15.0	11.0	10.5	9.8	9.8	5.4	5.6		4.7
19	14.5	15.0	11.0	10.5	9.8	9.8	5.1	5.3		5.5
20	14.5	15.0	11.0	10.5	9.8	9.8	4.8	5.0		5.4
21	14.5	15.0	11.0	10.5	9.8	9.8	5.4	5.5		5.3
22	14.5	15.0	11.0	10.5	9.8	9.8	5.0	5.2		5.3
23	14.5	15.0	11.0	10.8	8.8	10.0	5.1	5.2		5.4
24	15.0	15.0	11.0	9.8	8.8	10.0	4.9	5.0		5.5
25	15.0	15.0	11.0	11.0	8.5	9.5	5.4	5.6		5.4
26	15.0	15.0	11.0	11.0	8.5	9.5	5.4	5.6		4.9
27	15.0	15.0	11.0	11.0	8.5	9.5	5.4	5.6		4.7
28	15.0	15.0	11.0	11.0	8.5	9.5	5.3	5.4		5.5
<hr/>										
AVG	14.6	15.0	11.0	10.5	9.4	9.7	5.2	5.4		5.2
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

MARCH

DATE	North Percolation Ponds					South Percolation Ponds				
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	14.5	15.0	11.0	11.0	8.3	9.8	5.0	5.2		5.4
2	14.5	15.0	11.0	11.0	8.3	9.8	5.3	5.5		4.9
3	14.5	15.0	11.0	11.0	8.3	9.8	5.4	5.6		4.1
4	14.5	15.0	11.0	11.0	8.3	9.8	5.2	5.3		5.1
5	15.0	15.0	11.0	11.0	7.8	9.8	5.4	5.6		4.9
6	15.0	15.0	11.0	11.0	7.7	9.8	5.1	5.2		3.6
7	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.3		4.9
8	15.0	15.0	11.0	11.0	7.5	9.8	5.0	5.2		5.4
9	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.2		5.4
10	15.0	15.0	11.0	11.0	7.5	9.8	4.9	5.1		5.4
11	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.2		5.4
12	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.2		5.4
13	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.2		5.4
14	15.0	15.0	11.0	11.0	7.5	9.8	5.2	5.4		4.9
15	15.0	15.0	11.0	11.0	7.5	9.8	5.4	5.4		4.7
16	15.0	15.0	11.0	11.0	7.5	9.8	5.1	5.2		5.4
17	15.0	15.0	11.0	11.0	7.0	9.5	5.0	5.2		5.4
18	15.0	15.0	11.0	11.0	7.0	9.5	5.1	5.3		5.4
19	15.0	15.0	11.0	11.0	7.0	9.5	5.4	5.6		5.4
20	15.0	15.0	11.0	11.0	6.4	10.4	5.1	5.2		5.4
21	15.0	15.0	11.0	11.0	6.4	9.5	5.1	5.3		5.5
22	15.0	15.0	11.0	11.0	6.4	9.5	5.1	5.3		5.4
23	15.0	15.0	11.0	11.0	6.3	9.5	5.4	5.6		5.4
24	15.0	15.0	11.0	11.0	6.3	9.5	5.1	5.2		5.4
25	15.0	15.0	11.0	11.0	5.8	9.5	5.4	5.6		5.0
26	15.0	15.0	11.0	11.0	5.8	9.5	5.2	5.3		5.5
27	15.0	15.0	11.0	11.0	5.8	9.5	5.0	5.2		5.3
28	15.0	15.0	11.0	11.0	5.8	9.5	5.1	5.3		5.3
29	15.0	15.0	11.0	11.0	5.8	9.5	5.4	5.6		5.4
30	15.0	15.0	11.0	11.0	5.8	9.5	5.1	5.2		5.4
31	15.0	15.0	11.0	11.0	5.8	9.5	5.4	5.6		5.4
AVG	14.9	15.0	11.0	11.0	7.1	9.7	5.2	5.3	2.0	5.2
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

APRIL

DATE	North Percolation Ponds					South Percolation Ponds				
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	15.0	11.0	11.0	5.5	9.5	5.1	5.2		5.4
2	15.0	15.0	11.0	11.0	5.5	9.5	5.4	5.6		5.4
3	15.0	15.0	11.0	11.0	5.5	9.5	5.4	5.6		5.0
4	15.0	15.0	11.0	11.0	5.3	9.5	5.2	5.3		5.5
5	15.0	15.0	11.0	11.0	5.0	9.5	5.4	5.6		5.0
6	15.0	15.0	11.0	11.0	5.0	9.5	5.4	5.6		4.9
7	15.0	15.0	11.0	11.0	5.0	9.5	5.1	5.3		5.4
8	15.0	15.0	11.0	11.0	5.0	9.5	5.1	5.3		5.4
9	15.0	15.0	11.0	11.0	5.0	9.5	5.1	5.2		5.3
10	15.0	15.0	11.0	11.0	5.3	9.5	5.1	5.3		5.4
11	15.0	15.0	11.0	11.0	5.5	9.5	5.4	5.6		5.4
12	15.0	15.0	11.0	11.0	5.8	9.5	5.1	5.3		5.4
13	15.0	15.0	11.0	11.0	6.0	9.5	5.4	5.6		5.4
14	15.0	15.0	11.0	11.0	6.0	9.5	5.4	5.6		4.9
15	15.0	15.0	11.0	11.0	6.0	9.5	5.4	5.6		5.4
16	15.0	15.0	11.0	11.0	6.0	9.5	5.1	5.2		5.4
17	15.0	15.0	11.0	11.0	6.0	9.5	5.1	5.3		5.4
18	15.0	15.0	11.0	11.0	6.0	9.5	5.4	5.6		5.0
19	15.0	15.0	11.0	11.0	6.5	9.5	5.4	5.6		4.8
20	15.0	15.0	11.0	11.0	6.5	9.5	5.2	5.3		5.4
21	15.0	15.0	11.0	11.0	6.5	9.5	5.1	5.2		5.4
22	15.0	15.0	11.0	11.0	6.5	9.5	5.1	5.2		5.4
23	15.0	15.0	11.0	9.0	7.0	9.8	5.4	5.6		5.5
24	15.0	10.8	11.0	9.0	7.0	9.8	5.4	5.6		5.4
25	9.0	10.8	11.0	9.0	7.0	9.8	5.1	5.3		5.4
26	9.0	10.8	11.0	9.0	7.0	9.8	5.1	5.2		5.4
27	10.0	7.8	11.0	9.0	7.3	9.5	5.1	5.3		5.5
28	11.0	8.5	11.0	9.0	7.3	9.5	5.1	5.2		5.4
29	12.0	9.0	11.0	9.0	7.3	9.5	5.1	5.2		5.4
30	12.0	9.0	11.0	9.0	7.3	9.5	4.9	5.0		5.4
AVG	14.1	13.7	11.0	10.5	6.1	9.5	5.2	5.4	2.0	5.3
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VVWRA
Freeboard Levels
2009

MAY

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	13.2	10.1	11.0	10.0	7.5	10.5	7.3	9.5		5.4
2	13.5	10.3	11.0	9.5	7.5	10.5	5.4	5.6		4.9
3	13.5	10.0	11.0	9.5	7.5	10.5	5.4	5.6		5.4
4	14.0	10.8	11.0	9.5	7.5	9.5	5.0	5.6		4.9
5	14.3	11.0	11.0	10.0	7.6	9.3	5.4	5.6		4.9
6	14.3	11.0	11.0	10.0	7.6	9.3	5.4	5.6		5.4
7	14.3	11.3	11.0	10.3	7.8	9.3	5.1	5.3		5.4
8	14.8	10.8	11.0	9.5	7.8	10.5	5.4	5.6		4.9
9	14.8	10.7	11.0	10.5	8.0	10.5	5.2	5.3		5.4
10	15.0	10.9	11.0	10.5	8.0	10.5	5.4	5.6		4.9
11	15.0	10.5	11.0	10.3	8.0	9.5	5.4	5.6		5.3
12	15.0	10.3	11.0	8.5	10.3	9.5	5.1	5.3		5.5
13	15.0	10.3	11.0	10.3	9.5	9.5	5.4	5.6		4.8
14	15.0	9.5	11.0	10.0	8.4	10.8	5.4	5.6		4.7
15	15.0	9.5	11.0	10.0	8.4	10.8	5.4	5.6		5.4
16	15.0	9.5	11.0	11.0	8.5	10.5	5.4	5.6		4.9
17	15.0	9.5	11.0	11.0	8.5	10.5	5.4	5.5		4.1
18	15.0	9.3	11.0	10.3	8.5	9.5	5.1	5.3		5.4
19	15.0	9.0	11.0	10.3	8.6	9.5	5.4	5.6		5.4
20	15.0	9.0	11.0	10.3	8.6	9.5	5.1	5.3		5.4
21	15.0	9.0	11.0	10.3	8.0	9.5	5.4	5.6		5.4
22	15.0	9.0	11.0	10.3	8.0	9.5	5.2	5.3		5.4
23	15.0	10.5	11.0	10.3	8.9	10.8	5.4	5.6		5.4
24	15.0	11.5	11.0	10.3	8.9	10.8	5.1	5.3		5.4
25	15.0	12.0	11.0	10.0	9.0	9.5	5.4	5.6		4.9
26	15.0	12.5	11.0	10.0	9.0	10.0	5.4	5.6		4.9
27	15.0	12.5	11.0	10.0	9.0	10.0	5.4	5.6		5.4
28	15.0	14.0	11.0	10.0	9.1	10.0	5.4	5.6		5.4
29	15.0	14.0	11.0	10.0	9.0	10.0	5.1	5.2		5.4
30	15.0	14.0	11.0	10.0	9.0	10.0	5.4	5.6		5.4
31	15.0	14.9	11.0	10.0	9.2	10.0	4.8	4.9		5.4
AVG	14.7	10.9	11.0	10.1	8.4	10.0	5.4	5.6		5.2
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

JUNE

DATE	North Percolation Ponds					South Percolation Ponds				
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	14.5	11.0	10.0	9.5	10.0	5.4	5.6		4.9
2	15.0	14.5	11.0	10.0	9.5	10.0	5.4	5.6		5.4
3	15.0	15.0	11.0	8.0	9.3	9.5	4.9	5.1		5.3
4	15.0	15.0	11.0	8.0	9.3	9.5	5.4	5.6		5.5
5	15.0	15.0	11.0	8.0	9.5	9.5	5.0	5.2		5.4
6	15.0	15.0	11.0	7.3	9.7	10.3	5.4	5.6		5.0
7	15.0	15.0	11.0	7.3	9.8	10.5	5.4	5.6		5.3
8	15.0	15.0	11.0	7.3	10.0	10.0	5.1	5.2		5.4
9	15.0	15.0	11.0	7.2	9.7	10.2	5.1	5.2		5.4
10	15.0	15.0	11.0	7.2	9.7	10.2	5.1	5.2		5.4
11	15.0	15.0	11.0	6.8	9.8	10.3	5.4	5.6		5.4
12	15.0	15.0	11.0	6.8	9.8	10.3	5.0	5.1		5.4
13	15.0	15.0	11.0	6.8	9.8	10.3	5.2	5.3		5.4
14	15.0	15.0	11.0	6.8	10.0	10.3	4.9	5.0		5.4
15	15.0	15.0	11.0	6.0	10.0	10.3	5.4	5.6		5.4
16	15.0	15.0	11.0	5.5	10.0	10.3	4.8	4.9		5.4
17	15.0	15.0	11.0	5.4	10.0	10.3	5.4	5.6		5.4
18	15.0	15.0	11.0	5.3	10.0	10.3	5.4	5.6		5.4
19	15.0	15.0	11.0	5.4	10.0	10.5	5.2	5.3		5.4
20	15.0	15.0	11.0	5.4	10.0	10.5	5.2	5.3		5.5
21	15.0	15.0	11.0	5.4	10.0	10.5	5.4	5.6		5.4
22	15.0	15.0	11.0	5.4	10.0	10.5	5.2	5.4		5.4
23	15.0	15.0	11.0	5.4	10.0	10.5	5.2	5.3		5.4
24	15.0	15.0	11.0	5.4	10.0	10.5	5.2	5.3		5.4
25	15.0	15.0	11.0	5.3	10.0	10.5	5.4	5.6		5.4
26	15.0	15.0	11.0	5.4	10.0	10.5	5.4	5.6		5.4
27	15.0	15.0	11.0	5.4	10.0	10.5	5.4	5.6		5.4
28	15.0	15.0	11.0	5.4	10.0	10.5	5.1	5.3		5.4
29	15.0	15.0	11.0	7.0	10.0	10.5	5.4	5.6		5.4
30	15.0	15.0	11.0	7.0	10.3	10.5	5.1	5.3		5.4
AVG	15.0	15.0	11.0	6.6	9.9	10.3	5.2	5.4	2.0	5.4
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWVRA
Freeboard Levels
2009

JULY

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	15.0	11.0	8.0	10.3	10.5	5.4	5.6		5.4
2	15.0	15.0	11.0	8.0	10.3	10.5	5.3	5.4		5.4
3	15.0	15.0	11.0	8.0	10.3	10.5	5.4	5.6		5.4
4	15.0	15.0	11.0	10.0	10.5	10.5	5.2	5.4		5.5
5	15.0	15.0	11.0	10.0	10.5	10.5	5.4	5.6		5.4
6	15.0	15.0	11.0	10.0	10.5	10.5	5.2	5.4		5.4
7	15.0	15.0	11.0	10.0	10.5	10.5	5.4	5.6		5.4
8	15.0	15.0	11.0	10.0	10.5	10.5	5.2	5.4		5.5
9	15.0	15.0	11.0	10.0	10.5	10.5	5.4	5.6		5.5
10	15.0	15.0	11.0	10.5	10.8	10.5	5.2	5.3		5.4
11	15.0	15.0	11.0	10.5	10.8	10.5	5.4	5.6		5.4
12	15.0	15.0	11.0	10.5	10.8	10.5	5.2	5.4		5.5
13	15.0	15.0	11.0	10.5	10.5	10.5	5.4	5.6		5.4
14	15.0	15.0	11.0	10.5	10.5	10.5	5.2	5.3		5.4
15	15.0	15.0	11.0	10.5	10.5	10.5	5.4	5.6		5.4
16	15.0	15.0	11.0	10.5	10.5	10.5	5.1	5.3		5.4
17	15.0	15.0	11.0	10.5	10.5	10.5	5.2	5.3		5.4
18	15.0	15.0	11.0	10.5	10.5	10.5	5.1	5.3		5.4
19	15.0	15.0	11.0	10.5	10.5	10.5	5.4	5.6		5.4
20	15.0	15.0	11.0	10.5	10.5	10.5	5.2	5.4		5.4
21	15.0	15.0	11.0	10.5	11.0	10.5	5.2	5.3		5.4
22	15.0	15.0	11.0	7.5	11.0	10.5	5.4	5.6		5.3
23	15.0	15.0	11.0	7.5	11.0	10.5	5.4	5.6		5.4
24	15.0	15.0	11.0	6.5	11.0	10.5	5.1	5.1		5.4
25	15.0	15.0	11.0	6.5	11.0	10.5	5.2	5.3		5.4
26	15.0	15.0	11.0	7.0	11.0	11.0	5.2	5.3		5.4
27	15.0	15.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
28	15.0	15.0	11.0	7.0	11.0	11.0	5.2	5.3		5.4
29	15.0	15.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
30	15.0	15.0	11.0	7.0	11.0	11.0	5.2	5.4		5.4
31	15.0	15.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
AVG	15.0	15.0	11.0	9.0	10.7	10.6	5.3	5.5	2.0	5.4
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

AUGUST

DATE	North Percolation Ponds					South Percolation Ponds				
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	15.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
2	15.0	15.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
3	15.0	15.0	11.0	7.0	11.0	11.0	4.9	5.1		5.3
4	15.0	15.0	11.0	6.3	11.0	11.0	5.4	5.6		5.4
5	15.0	15.0	11.0	6.3	11.0	11.0	5.2	5.3		5.5
6	15.0	15.0	11.0	6.3	11.0	11.0	5.4	5.6		5.4
7	15.0	15.0	11.0	6.3	11.0	11.0	5.2	5.3		5.4
8	15.0	15.0	11.0	6.5	11.0	11.0	5.2	5.3		5.4
9	15.0	15.0	11.0	6.5	11.0	11.0	5.4	5.6		5.4
10	15.0	15.0	11.0	6.3	11.0	11.0	5.2	5.3		5.4
11	15.0	15.0	11.0	6.3	11.0	11.0	5.4	5.6		5.4
12	15.0	15.0	11.0	6.3	11.0	11.0	5.1	5.3		5.4
13	15.0	15.0	11.0	6.3	11.0	11.0	5.4	5.5		5.5
14	15.0	15.0	11.0	6.3	11.0	11.0	5.2	5.3		5.4
15	15.0	15.0	11.0	6.0	11.0	11.0	5.1	5.2		5.4
16	15.0	15.0	11.0	6.0	11.0	11.0	5.2	5.3		5.4
17	15.0	15.0	11.0	6.0	11.0	11.0	5.4	5.6		5.4
18	15.0	15.0	11.0	6.0	11.0	11.0	5.1	5.3		5.4
19	15.0	15.0	11.0	6.0	11.0	11.0	5.1	5.3		5.4
20	15.0	9.0	11.0	6.0	11.0	11.0	5.4	5.6		5.4
21	15.0	8.5	11.0	6.0	11.0	11.0	5.0	5.1		5.3
22	15.0	8.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
23	15.0	8.0	11.0	7.0	11.0	11.0	5.0	5.2		5.4
24	15.0	7.3	11.0	6.0	11.0	11.0	5.0	5.1		5.4
25	15.0	7.3	11.0	6.0	11.0	11.0	5.2	5.3		5.4
26	15.0	7.3	11.0	6.0	11.0	11.0	5.2	5.3		5.4
27	15.0	7.0	11.0	6.0	11.0	11.0	5.1	5.3		5.4
28	15.0	7.0	11.0	8.5	11.0	11.0	5.1	5.2		5.4
29	15.0	7.0	11.0	8.8	11.0	11.0	5.4	5.6		5.4
30	15.0	7.0	11.0	8.8	11.0	11.0	4.9	5.0		5.4
31	15.0	7.0	11.0	8.8	11.0	11.0	5.0	5.2		5.3
AVG	15.0	12.1	11.0	6.6	11.0	11.0	5.2	5.4		5.4
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VVWRA
Freeboard Levels
2009

SEPTEMBER

DATE	North Percolation Ponds										South Percolation Ponds		
	1	2	3	4	5	6	7	8	9	10	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	7.1	11.0	9.0	11.0	11.0	5.1	5.2			5.4		
2	15.0	7.1	11.0	9.0	11.0	11.0	5.1	5.3			5.4		
3	15.0	7.0	11.0	9.0	11.0	11.0	5.1	5.2			5.4		
4	15.0	7.0	11.0	9.3	11.0	11.0	5.1	5.2			5.4		
5	15.0	7.3	11.0	8.5	11.0	10.5	5.1	5.2			5.5		
6	15.0	7.3	11.0	8.5	11.0	10.5	5.1	5.3			5.4		
7	15.0	9.3	11.0	8.0	11.0	10.5	5.1	5.3			5.4		
8	15.0	9.5	11.0	7.9	11.0	10.5	5.1	5.3			5.5		
9	15.0	11.0	11.0	7.5	11.0	10.5	5.4	5.6			5.4		
10	15.0	11.5	11.0	6.8	11.0	11.0	5.1	5.2			5.4		
11	15.0	12.0	11.0	6.3	11.0	11.0	5.0	5.2			5.4		
12	15.0	12.5	11.0	6.0	11.0	11.0	5.4	5.6			5.5		
13	15.0	13.0	11.0	6.0	11.0	11.0	5.1	5.3			5.4		
14	15.0	13.5	11.0	5.5	11.0	10.5	5.1	5.3			5.4		
15	15.0	13.5	11.0	5.5	11.0	10.5	5.1	5.3			5.4		
16	15.0	13.5	11.0	5.3	11.0	10.5	5.4	5.6			5.4		
17	15.0	13.5	11.0	5.3	11.0	10.5	5.1	5.2			5.4		
18	15.0	13.5	11.0	5.3	11.0	10.5	5.4	5.6			4.9		
19	15.0	14.5	11.0	5.2	11.0	10.5	5.1	5.2			5.4		
20	15.0	14.5	11.0	5.1	11.0	10.5	5.4	5.6			4.9		
21	15.0	14.5	11.0	5.0	11.0	10.5	5.4	5.6			4.9		
22	15.0	15.0	11.0	5.1	11.0	10.5	5.1	5.3			5.5		
23	15.0	15.0	11.0	5.1	11.0	10.5	5.4	5.6			4.9		
24	15.0	15.0	11.0	6.0	11.0	10.5	5.1	5.3			5.4		
25	15.0	15.0	11.0	7.0	11.0	10.5	5.1	5.2			5.4		
26	15.0	15.0	11.0	6.5	11.0	11.0	5.0	5.2			5.4		
27	15.0	15.0	11.0	6.1	11.0	11.0	5.3	5.4			4.9		
28	15.0	15.0	11.0	7.0	11.0	11.0	5.0	5.2			5.5		
29	15.0	15.0	11.0	7.5	11.0	11.0	5.4	5.6			5.0		
30	15.0	15.0	11.0	7.5	11.0	11.0	5.1	5.2			5.5		
AVG	15.0	12.3	11.0	6.7	11.0	10.7	5.2	5.3			5.3		
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0			2.0		
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1			3.3		

VWRA
Freeboard Levels
2009

OCTOBER

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	8.9	11.0	8.0	11.0	10.0	5.1	5.2		5.4
2	15.0	8.9	11.0	8.0	11.0	10.0	5.4	5.6		5.0
3	15.0	8.7	11.0	7.5	11.0	10.0	5.4	5.5		4.8
4	15.0	8.3	11.0	8.0	11.0	10.0	5.1	5.2		5.4
5	15.0	8.3	11.0	8.5	11.0	10.0	5.4	5.6		5.4
6	15.0	8.3	11.0	8.0	11.0	10.0	5.1	5.2		5.4
7	15.0	7.9	11.0	8.5	11.0	11.0	5.0	5.2		5.4
8	15.0	7.5	11.0	8.5	11.0	11.0	5.2	5.3		4.9
9	15.0	8.5	11.0	8.0	11.0	11.0	5.0	5.2		5.4
10	15.0	8.5	11.0	8.0	11.0	11.0	5.0	5.2		5.4
11	15.0	8.5	11.0	8.0	11.0	11.0	5.0	5.2		5.3
12	15.0	8.5	11.0	8.0	11.0	11.0	5.1	5.3		4.8
13	15.0	12.0	11.0	7.0	11.0	11.0	5.4	5.6		5.4
14	15.0	12.0	11.0	7.0	11.0	11.0	5.1	5.2		5.3
15	15.0	12.5	11.0	6.8	11.0	11.0	5.4	5.6		4.8
16	15.0	13.0	11.0	6.8	11.0	11.0	5.4	5.6		5.3
17	15.0	13.0	11.0	6.8	11.0	11.0	5.0	5.2		5.4
18	15.0	13.0	11.0	6.7	11.0	11.0	5.4	5.6		4.8
19	15.0	13.5	11.0	6.3	11.0	11.0	5.4	5.6		4.8
20	15.0	13.5	11.0	6.3	11.0	11.0	5.4	5.6		5.4
21	15.0	13.5	11.0	6.0	11.0	11.0	5.0	5.2		5.4
22	15.0	14.0	11.0	6.0	11.0	11.0	5.4	5.6		4.8
23	15.0	14.5	11.0	5.8	11.0	11.0	5.4	5.6		5.4
24	15.0	14.5	11.0	5.8	11.0	11.0	5.4	5.6		5.4
25	15.0	14.5	11.0	5.5	11.0	11.0	5.4	5.6		4.9
26	15.0	14.5	11.0	6.0	11.0	11.0	5.4	5.5		5.3
27	15.0	14.5	11.0	6.0	11.0	11.0	5.0	5.2		5.4
28	15.0	14.8	11.0	6.0	11.0	11.0	5.4	5.6		4.9
29	15.0	14.8	11.0	6.0	11.0	11.0	5.0	5.1		5.4
30	15.0	14.8	11.0	5.8	11.0	11.0	5.0	5.1		5.4
31	15.0	14.8	11.0	5.8	11.0	11.0	5.0	5.2		5.4
AVG	15.0	11.7	11.0	6.9	11.0	10.8	5.2	5.4		5.2
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VVWRA
Freeboard Levels
2009

NOVEMBER

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	14.8	11.0	5.5	11.0	11.0	5.4	5.5		5.4
2	15.0	15.0	11.0	5.3	11.0	11.0	5.0	5.2		5.4
3	15.0	15.0	11.0	5.3	11.0	11.0	5.0	5.2		4.8
4	15.0	15.0	11.0	5.3	11.0	11.0	5.4	5.5		5.4
5	15.0	15.0	11.0	5.3	11.0	11.0	5.0	5.2		5.4
6	15.0	15.0	11.0	5.1	11.0	11.0	5.4	5.5		4.8
7	15.0	15.0	11.0	5.1	11.0	11.0	5.4	5.5		4.8
8	15.0	15.0	11.0	5.0	11.0	11.0	5.4	5.5		5.3
9	15.0	15.0	11.0	5.0	11.0	11.0	5.0	5.1		5.3
10	15.0	15.0	11.0	5.0	11.0	11.0	5.0	5.1		5.3
11	15.0	15.0	11.0	5.0	11.0	11.0	5.4	5.5		5.4
12	15.0	15.0	11.0	5.5	11.0	11.0	5.0	5.1		5.4
13	15.0	15.0	11.0	5.5	11.0	11.0	5.4	5.5		4.8
14	15.0	15.0	11.0	5.5	11.0	11.0	5.4	5.5		5.3
15	15.0	15.0	11.0	5.0	11.0	11.0	5.0	5.1		5.3
16	15.0	15.0	11.0	5.0	11.0	11.0	5.4	5.5		4.8
17	15.0	15.0	11.0	4.9	11.0	11.0	5.4	5.5		5.3
18	15.0	15.0	11.0	4.9	11.0	11.0	5.0	5.1		5.3
19	15.0	15.0	11.0	5.0	11.0	11.0	4.9	5.1		5.3
20	15.0	15.0	11.0	5.0	11.0	11.0	5.4	5.5		5.3
21	15.0	15.0	11.0	5.0	11.0	11.0	5.4	5.5		5.3
22	15.0	15.0	11.0	5.0	11.0	11.0	5.3	5.4		4.8
23	15.0	15.0	11.0	5.0	11.0	11.0	5.0	5.2		5.1
24	15.0	15.0	11.0	4.8	11.0	11.0	5.2	5.4		4.8
25	15.0	15.0	11.0	4.8	11.0	11.0	5.0	5.1		4.7
26	15.0	15.0	11.0	4.5	11.0	11.0	5.2	5.4		4.8
27	15.0	12.5	11.0	5.5	11.0	11.0	5.0	5.2		4.5
28	15.0	12.0	11.0	5.5	11.0	11.0	5.4	5.5		4.8
29	15.0	12.0	11.0	5.5	11.0	11.0	5.0	5.1		5.3
30	15.0	10.8	11.0	6.0	11.0	11.0	5.3	5.5		5.3
AVG	15.0	14.6	11.0	5.2	11.0	11.0	5.2	5.3		5.1
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1		3.3

VWRA
Freeboard Levels
2009

DECEMBER

DATE	North Percolation Ponds						South Percolation Ponds			
	1	2	3	4	5	6	7	8	9	10
	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)	Freeboard (ft)
1	15.0	10.5	11.0	5.0	11.0	11.0	4.6	4.8		5.3
2	15.0	10.0	11.0	6.3	11.0	11.0	5.4	5.5		4.7
3	15.0	10.0	11.0	6.5	11.0	11.0	5.0	5.2		4.8
4	15.0	10.0	11.0	6.5	11.0	11.0	5.0	5.1		3.8
5	15.0	9.3	11.0	7.0	11.0	11.0	4.8	4.9		4.8
6	15.0	9.2	11.0	6.5	11.0	11.0	5.0	5.1		4.2
7	15.0	9.2	11.0	7.0	11.0	11.0	4.4	4.6		4.7
8	15.0	9.0	11.0	7.2	11.0	11.0	3.0	3.1		4.5
9	15.0	8.8	11.0	7.5	11.0	11.0	4.4	4.5		4.7
10	15.0	8.8	11.0	7.5	11.0	11.0	4.9	5.1		5.0
11	15.0	8.8	11.0	7.0	11.0	11.0	4.5	4.6		4.8
12	15.0	8.8	11.0	7.0	11.0	11.0	5.4	5.5		3.4
13	15.0	8.5	11.0	7.2	11.0	11.0	5.0	5.1		4.2
14	15.0	8.8	11.0	8.0	11.0	11.0	4.2	4.4		4.7
15	15.0	8.5	11.0	8.0	11.0	11.0	5.0	5.1		5.1
16	15.0	8.5	11.0	8.0	11.0	11.0	4.3	4.5		5.3
17	15.0	8.8	11.0	8.5	11.0	11.0	4.8	5.0		5.3
18	15.0	8.8	11.0	8.5	11.0	11.0	4.2	4.4		4.8
19	15.0	9.0	11.0	8.8	11.0	11.0	4.3	4.4		3.3
20	15.0	9.0	11.0	8.5	11.0	11.0	5.0	5.2		4.0
21	15.0	9.3	11.0	9.0	11.0	11.0	4.3	4.5		4.5
22	15.0	8.5	11.0	9.0	11.0	11.0	5.0	5.2		4.6
23	15.0	8.5	11.0	9.0	11.0	11.0	4.1	4.2		4.9
24	15.0	8.5	11.0	9.0	11.0	11.0	5.0	5.2		5.0
25	15.0	9.0	11.0	9.0	11.0	11.0	4.3	4.5		4.8
26	15.0	9.0	11.0	9.5	11.0	11.0	5.0	5.1		3.4
27	15.0	9.0	11.0	9.5	11.0	11.0	4.4	4.6		3.9
28	15.0	8.5	11.0	9.0	11.0	11.0	5.0	5.2		4.3
29	15.0	8.3	11.0	9.5	11.0	11.0	4.3	4.4		4.6
30	15.0	8.0	11.0	9.5	11.0	11.0	5.0	5.1		4.8
31	15.0	8.0	11.0	9.5	11.0	11.0	4.3	4.5		4.7
AVG	15.0	8.9	11.0	8.0	11.0	11.0	4.6	4.8	2.0	4.5
Limit	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
MIN	9.0	7.0	11.0	4.5	5.0	9.3	3.0	3.1	3.1	3.3

SECTION 4

FACILITY INFLUENT MONITORING

VWRA
Facility Influent Monitoring
2009
Schedule

Parameter	Units	Type of Sample	Frequency	2009 Sample Month(s)
pH	pH Units	Continuous	Daily	N/A
Conductivity	µmhos/cm	Continuous	Daily	N/A
BOD	mg/L	24 hour composite	4/Weekly	N/A
TSS	mg/L	24 hour composite	4/Weekly	N/A
Nitrate - Nitrogen	mg/L as N	Grab	Monthly	N/A
Kjeldahl - Nitrogen	mg/L as N	Grab	Monthly	N/A
Ammonia - Nitrogen	mg/L as N	Grab	Monthly	N/A

This schedule reflects renewed NPDES permit requirements effective April 04, 2008.

VWRA
 Facility Influent Monitoring
 Weekly - Monthly
 2009

JANUARY

FEBRUARY

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.18	912	387				1	7.04	756				
2	7.28	824					2	7.17	825	305			
3	7.27	605					3	7.26	753	318	50	30.0	<0.2
4	7.10	797					4	7.09	716	252			
5	7.20	821	363				5	7.23	844	240			
6	7.17	855	362	37	28.0	<0.2	6	7.13	753				
7	7.17	783	358				7	7.07	695				
8	7.14	802	358				8	7.22	764	360			
9	7.15	741					9	7.22	739	320	45	25.0	<0.2
10	7.30	910					10	7.11	705	355			
11	7.17	811					11	7.10	719	548			
12	7.15	778	450	45	29.0	<0.2	12	7.13	723				
13	7.15	744	349				13	7.06	767	486			
14	7.16	770	330				14	7.14	727	346	39	30.0	<0.2
15	7.07	703	406				15	7.14	749	193			
16	7.15	750					16	7.15	770	561			
17	7.11	780					17	7.02	819				
18	7.05	882					18	7.13	749				
19	7.16	796	346				19	7.06	756				
20	7.35	751	328	47	27.0	<0.2	20	7.12	705				
21	7.15	757	303				21	7.24	909				
22	7.16	773	364				22	7.12	767				
23	7.10	836					23	7.13	727	280			
24	7.43	758					24	7.12	718	440	42	31.0	<0.2
25	7.10	815	396				25	7.13	753	505			
26	7.18	741	416	44	27.0	<0.2	26	6.89	691	580			
27	7.14	761	330				27	7.14	715				
28	7.17	744	367				28	7.25	909				
29	7.12	731											
30	7.08	887											
31	7.20	803											
Average	7.17	788	365	43	28	<0.2	Average	7.13	758	381	44	29	<0.2
Minimum	7.05	605	303		27		Minimum	6.89	691	193		25	
Maximum	7.43	912	450	47	29		Maximum	7.26	909	580	45	31	

10/RA
 Facility Influent Monitoring
 Weekly - Monthly
 2009

MARCH

APRIL

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.12	781					1	7.16	794	288			
2	7.23	824	388				2	7.20	789	340			
3	7.15	748	449	39	28.0	<0.2	3	7.17	725				
4	7.16	706	416				4	7.14	845				
5	7.16	817	568				5	7.09	732				
6	7.15	765					6	7.15	735	333			
7	7.25	775					7	7.16	746	362	42	29.0	<0.2
8	7.12	696					8	7.09	738	325			
9	7.13	702	292				9	7.18	818	385			
10	7.21	805	286				10	7.08	721				
11	7.20	707	314	32	30.0	<0.2	11	7.22	810				
12	7.20	783	346				12	7.08	757				
13	7.22	689					13	7.12	796	322			
14	7.24	947					14	7.14	841	381			
15	6.59	830					15	7.14	712	314	41	28.0	<0.2
16	7.22	755	364				16	7.15	811	358			
17	7.23	901	389	47	29.0	<0.2	17	7.15	731				
18	7.19	760	384				18	7.18	812				
19	7.24	779	355				19	7.23	964				
20	7.23	759					20	7.15	716	330			
21	7.23	795					21	7.14	774	416	42	27.0	<0.2
22	7.19	764					22	7.11	747	360			
23	7.16	806	334				23	7.10	746	400			
24	7.15	730	442	46	29.0	<0.2	24	7.10	731				
25	7.20	716	324				25	7.16	903				
26	7.13	892	402				26	7.11	731				
27	7.12	695					27	7.11	680	338			
28	7.24	807					28	7.07	762	342	43	28.0	<0.2
29	7.25	951					29	7.08	696	339			
30	7.18	781	383				30	7.15	776	367			
31	7.28	840	360	48	29.0	<0.2							
Average	7.17	784	378	42	29	<0.2	Average	7.14	771	350	42	28	<0.2
Minimum	6.59	689	286		28		Minimum	7.07	680	288		27	
Maximum	7.28	951	568		30		Maximum	7.23	964	416		29	

VWRA
 Facility Influent Monitoring
 Weekly - Monthly
 2009

MAY

JUNE

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.07	725					1	7.20	793	316			
2	7.12	804					2	7.22	790	349	46	27.0	<0.2
3	7.16	767					3	7.25	738	364			
4	7.11	761	368				4	7.26	840	410			
5	7.22	781	439	39	25.0	<0.2	5	7.24	726				
6	7.15	688	360				6	7.20	828				
7	7.21	789	379				7	7.21	603				
8	7.18	763					8	7.24	809	364			
9	7.15	938					9	7.19	741	374	38	26.0	<0.2
10	7.15	743					10	7.23	780	354			
11	7.15	765	382				11	7.25	854	394			
12	7.23	779	396	46	24.0	<0.2	12	7.25	842				
13	7.12	767	496				13	7.27	884				
14	7.13	754	443				14	7.26	765				
15	7.14	768					15	7.22	782	344			
16	7.17	859					16	7.20	721	484	49	30.0	<0.2
17	7.15	813					17	7.21	738	316			
18	7.13	726	338				18	7.24	764	541			
19	7.17	766	326	55	25.0	<0.2	19	7.16	770				
20	7.13	720	368				20	7.25	634				
21	7.18	797	388				21	7.25	924				
22	7.25	703					22	7.13	758	230			
23	7.24	800					23	7.24	760	353	53	24.0	<0.2
24	7.17	763					24	7.23	844	466			
25	7.24	773	431				25	7.26	863	452			
26	7.27	838	388	57	26.0	<0.2	26	7.31	744				
27	7.26	795	346				27	7.23	765				
28	7.27	807	402				28	7.17	762				
29	7.16	746					29	7.22	767	325			
30	7.30	852					30	7.22	812	2382	38	26.0	<0.2
31	7.22	759											
Average								7.18	778	391	49	25	<0.2
Minimum								7.07	688	326	24	24	
Maximum								7.30	938	496	26	30	

WRA
 Facility Influent Monitoring
 Weekly - Monthly
 2009

JULY

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.19	753	278			
2	7.16	741	332			
3	7.30	755				
4	7.20	815				
5	7.23	794				
6	7.22	777	338			
7	7.22	755	380	43	26.0	<0.2
8	7.20	780	273			
9	7.21	7	358			
10	7.10	730				
11	7.19	724				
12	7.06	766				
13	7.15	810	326			
14	7.11	742	375	34	28.0	<0.2
15	7.11	780	326			
16	7.17	742	386			
17	7.14	823				
18	7.34	790				
19	7.07	726				
20	7.14	882	324			
21	7.12	753	378	37	26.0	<0.2
22	7.14	735	320			
23	7.14	778	316			
24	7.12	810				
25	7.23	794				
26	7.14	726				
27	7.10	784	251			
28	7.22	770	322	45	28.0	<0.2
29	7.15	771	364			
30	7.23	823	308			
31	7.18	809				
Average	7.17	750	331	40	40	<0.2
Minimum	7.06	7	251		26	
Maximum	7.34	882	386		28	

AUGUST

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.26	782				
2	7.12	718				
3	7.16	793	265			
4	7.16	808	328	38	26.0	<0.2
5	7.15	903	299			
6	7.11	723	333			
7	7.27	818				
8	7.21	794				
9	7.12	727				
10	7.10	698	303			
11	7.14	746	344			
12	7.13	843	261	36	27.0	<0.2
13	7.21	885	353			
14	7.18	814				
15	7.27	887				
16	7.12	876				
17	7.43	736	298			
18	7.19	824	294	49	25.0	1.2
19	7.14	872	238			
20	7.74	751	250			
21	7.13	825				
22	7.40	828				
23	7.15	873				
24	7.18	889	275			
25	7.18	801	310	22	22.0	<0.2
26	7.18	859	236			
27	7.19	808	274			
28	7.21	793				
29	7.66	746				
30	7.13	868				
31	7.18	848	266			
Average	7.18	778	391	49	25	<0.2
Minimum	7.07	688	326		24	
Maximum	7.30	938	496		26	

VWRA
 Facility Influent Monitoring
 Weekly - Monthly
 2009

SEPTEMBER

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.18	835	276	36	28.0	<0.2
2	7.16	867	275			
3	7.15	869	280			
4	7.16	819				
5	7.28	916				
6	7.17	894				
7	7.10	917	262			
8	7.14	882	240	39	28.0	<0.2
9	7.16	833	211			
10	7.21	805	293			
11	7.01	844				
12	7.17	845				
13	7.14	854				
14	6.98	787	271			
15	7.11	895	267	45	26.0	<0.2
16	7.18	823	256			
17	7.15	898	302			
18	7.15	849				
19	7.27	811				
20	7.17	873				
21	7.10	783	332			
22	7.17	845	288	43	27.0	<0.2
23	7.16	852	242			
24	7.19	862	249			
25	7.16	862				
26	7.21	829				
27	7.12	867				
28	7.11	773	311			
29	7.15	873	284	45	25.0	<0.2
30	7.16	910	270			
Average	7.18	778	391	49	25	<0.2
Minimum	7.07	688	326		24	
Maximum	7.30	938	496		26	

OCTOBER

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.12	908	266			
2	7.17	867				
3	7.29	863				
4	7.23	880				
5	7.18	830	246			
6	7.17	859	140	35	24.0	<0.2
7	7.22	791	260			
8	7.24	927	292			
9	7.19	808				
10	7.21	822				
11	7.20	858				
12	7.19	750	316			
13	7.27	803	318	37	26.0	<0.2
14	7.34	702	276			
15	7.06	704	315			
16	7.13	717				
17	7.11	878				
18	7.19	933				
19	7.08	896	288			
20	7.08	871	305	41	24.0	<0.2
21	7.09	845	282			
22	7.07	847	282			
23	7.10	809				
24	7.17	897				
25	7.11	903				
26	7.06	905	262			
27	7.12	933	318	32	21.0	<0.2
28	7.09	877	286			
29	7.10	853	318			
30	7.15	783				
31	7.08	796				
Average	7.23	780	490	45	27	<0.2
Minimum	7.13	603	230		24	
Maximum	7.31	924	2382		30	

/RA
Facility Influent Monitoring
Weekly - Monthly
2009

NOVEMBER

DECEMBER

Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)	Date	pH (pH Units)	Conductivity (µmhos/cm)	BOD (mg/L)	TKN (mg/L)	Ammonia (mg/L)	Nitrate (mg/L)
1	7.17	889					1	7.42	862	369	43	25.0	<0.2
2	7.13	910	287				2	7.43	934	317			
3	7.19	805	354	30	19.0	<0.2	3	7.45	755	251			
4	7.20	827	278				4	7.37	889				
5	7.12	880	282				5	7.39	935				
6	7.48	873					6	7.39	831				
7	7.12	931					7	7.43	783	261			
8	7.46	923					8	7.41	929	348	38	23.0	<0.2
9	7.41	977	306				9	7.34	831	264			
10	7.43	925	398	40	23.0	<0.2	10	7.37	827	265			
11	7.44	868	304				11	7.33	889				
12	7.40	852	336				12	7.46	812				
13	7.36	907					13	7.46	817				
14	7.41	858					14	7.38	843	274			
15	7.40	1141					15	7.39	925	314	30	25.0	<0.2
16	7.43	913	261				16	7.34	860	276			
17	7.49	935	280	36	24.0	<0.2	17	7.36	869	358			
18	7.45	859	322				18	7.36	895				
19	7.54	968	333				19	7.34	843	510			
20	7.49	969					20	7.29	857	360			
21	7.46	888					21	7.44	788	295			
22	7.43	904					22	7.43	907	346	32	29.0	<0.2
23	7.46	857	294				23	7.41	904				
24	7.45	917	324	35	28.0	<0.2	24	7.46	803	362			
25	7.43	852	342				25	7.49	893	403			
26	7.42	810	468				26	7.48	837	520			
27	7.45	1037					27	7.46	839	410			
28	7.39	780					28	7.40	792	336			
29	7.44	855					29	7.45	900	326	29	29.0	<0.2
30	7.41	757	286				30	7.43	832				
							31	7.40	824	302			

Average	7.23	780	490	45	27	<0.2	Average	7.17	750	331	40	27	<0.2
Minimum	7.13	603	230		24		Minimum	7.06	7	251		26	
Maximum	7.31	924	2382		30		Maximum	7.34	882	386		28	

SECTION 2

FLOW PER MONTH

1/20/13

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VVWRA

Flows per Month
2009

JANUARY

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	11.93	17.29	0.00	4.00	7.54	11.53	0.00	0.00
2	12.78	17.91	0.00	4.85	7.99	12.84	9932.00	0.00
3	12.19	18.72	0.00	4.65	7.86	12.52	0.00	0.00
4	13.14	18.87	0.00	3.36	8.12	11.48	0.00	0.34
5	12.55	16.51	0.00	4.33	8.69	13.02	16456.00	0.00
6	12.36	16.67	0.00	3.88	7.75	11.63	6666.00	0.00
7	12.39	15.98	1.04	4.07	7.74	12.85	8525.00	0.00
8	12.50	15.98	0.75	3.94	7.21	11.90	12082.00	0.00
9	12.51	16.26	0.00	4.57	8.89	13.46	4159.00	0.00
10	12.93	18.89	0.00	5.05	7.33	12.38	0.00	0.00
11	12.59	18.53	0.00	3.87	7.08	10.96	0.00	0.39
12	12.32	18.16	0.00	4.82	8.75	13.57	8774.00	0.00
13	12.08	16.76	0.00	3.83	6.97	10.80	9000.00	0.00
14	11.97	16.53	0.00	4.01	7.04	11.05	8525.00	0.37
15	10.63	16.57	0.00	4.19	6.30	10.49	0.00	0.00
16	12.41	15.86	0.00	4.61	8.15	12.76	25746.00	0.00
17	12.97	18.89	0.00	4.63	7.26	11.89	0.00	0.00
18	12.00	18.08	0.00	4.44	7.37	11.81	0.00	0.36
19	12.58	18.21	0.00	4.08	7.82	11.90	0.00	0.00
20	12.31	16.53	0.00	4.82	8.46	13.28	17940.00	0.00
21	11.94	16.23	0.00	4.30	7.67	11.97	12017.00	0.39
22	12.27	16.26	0.00	4.39	8.16	12.55	9044.00	0.00
23	12.27	15.61	0.00	4.15	9.18	13.33	8525.00	0.00
24	12.69	18.81	0.00	4.80	7.09	11.88	0.00	0.00
25	12.84	18.08	0.00	4.19	8.14	12.33	0.00	0.34
26	12.32	17.25	0.00	4.24	7.72	11.96	14205.00	0.00
27	12.31	16.83	0.00	4.32	8.33	12.65	4366.00	0.00
28	12.19	16.38	0.00	4.14	7.48	11.62	6459.00	0.37
29	12.45	16.26	0.00	4.35	8.52	12.86	4366.00	0.00
30	11.96	15.54	0.00	4.04	7.39	11.43	4159.00	0.00
31	12.97	19.01	0.00	4.34	8.46	12.80	0.00	0.00
Total (mg)	383.35		1.79	133.26	242.46	377.50	0.19	2.56
Average (mgd)	12.37	17.21	0.06	4.30	7.82	12.18	0.01	0.08
Maximum (mgd)	13.14	19.01	1.04	5.05	9.18	13.57	0.03	0.39
						100.00		
						% Difference		

VWRA
Flows per Month
2009

FEBRUARY

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	12.21	19.25	0.00	3.82	7.33	11.15		0.40
2	12.41	16.86	0.00	4.25	7.73	11.98	6681.00	0.35
3	12.10	16.95	0.00	4.13	8.02	12.15	11912.00	0.00
4	12.33	16.73	0.00	4.22	8.29	12.51	6666.00	0.35
5	12.19	16.87	0.00	4.07	8.33	12.40	16356.00	0.00
6	12.51	15.88	0.00	4.57	8.32	12.89	11678.00	0.00
7	12.95	19.55	0.00	4.24	7.78	12.03		0.00
8	12.54	18.39	0.00	4.48	8.49	12.97		0.00
9	12.79	17.19	0.00	4.16	7.83	11.99	4800.00	0.00
10	12.43	16.69	0.00	4.44	8.32	12.76	14551.00	0.00
11	12.35	16.53	0.00	4.15	8.63	12.78	6978.00	0.00
12	12.19	15.96	0.00	4.16	8.13	12.29	13437.00	0.00
13	12.09	15.77	0.00	3.79	8.44	12.23	10384.00	0.00
14	12.71	19.22	0.00	4.10	8.14	12.23		0.00
15	12.15	18.23	0.00	4.17	8.12	12.29		0.00
16	14.12	23.30	0.00	4.68	8.53	13.21		0.00
17	12.25	16.96	0.00	4.71	8.60	13.31	6432.00	0.00
18	12.62	16.49	0.00	4.41	7.97	12.39	7759.00	0.00
19	13.24	16.33	0.00	4.56	7.60	12.16	8732.00	0.01
20	11.97	15.86	0.00	4.03	8.71	12.73	8759.00	0.00
21	11.78	17.34	0.00	3.80	7.09	10.89		0.00
22	12.57	17.77	0.00	4.42	8.13	12.55		0.00
23	12.37	16.50	0.00	4.25	8.09	12.34	4600.00	0.00
24	12.18	16.72	0.00	3.97	7.80	11.77	13859.00	0.42
25	13.02	17.46	0.00	5.09	9.23	14.32	7509.00	0.00
26	11.37	16.42	0.00	3.96	7.13	11.09	8959.00	0.00
27	12.14	15.85	0.00	4.67	7.82	12.50	5111.00	0.02
28	12.42	18.56	0.00	4.26	7.92	12.19		0.00
Total (mg)	348.00		0.00	119.56	226.52	346.10	0.18	1.55
Average (mgd)	12.43	17.34	0.00	4.27	8.09	12.36	0.01	0.06
Maximum (mgd)	14.12	23.30	0.00	5.09	9.23	14.32	0.02	0.42
							% Difference	100.00

VVWRA

Flows per Month
2009

MARCH

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	12.25	16.37	0.00	3.67	7.31	10.98	0.00	0.39
2	12.16	16.34	0.00	4.17	8.28	12.46	17107.00	0.00
3	12.20	17.11	0.00	4.37	8.34	12.71	6632.00	0.00
4	12.31	16.51	0.00	3.95	8.07	12.02	9809.00	0.39
5	12.35	19.97	0.00	4.14	7.86	12.00	10009.00	0.00
6	12.18	16.33	0.00	4.11	8.01	12.11	7546.00	0.00
7	12.71	18.72	0.00	4.71	7.81	12.52	0.00	0.00
8	12.40	18.41	0.00	3.40	7.26	10.66	0.00	0.40
9	12.54	17.30	0.00	4.13	8.42	12.55	11025.00	0.00
10	12.11	17.36	0.00	3.98	7.35	11.33	13637.00	0.36
11	12.21	17.36	0.00	4.04	8.04	12.07	11641.00	0.34
12	12.25	17.01	0.00	4.15	8.14	12.29	13671.00	0.00
13	12.07	15.63	0.00	4.15	7.99	12.14	4566.00	0.00
14	12.30	18.45	0.00	4.44	8.13	12.57	0.00	0.00
15	12.59	18.27	0.00	4.54	7.74	12.29	0.00	0.38
16	12.44	17.47	0.00	4.44	8.25	12.70	11025.00	0.37
17	11.98	17.19	0.00	4.44	7.82	12.25	15903.00	0.38
18	12.16	16.74	0.00	4.00	8.28	12.27	5246.00	0.00
19	11.93	16.53	0.00	4.45	7.98	12.43	14375.00	0.39
20	12.38	17.29	0.00	3.91	7.09	11.00	9278.00	0.00
21	12.26	17.98	0.00	4.10	8.35	12.44	0.00	0.00
22	12.12	18.01	0.00	3.96	7.24	11.20	0.00	0.39
23	12.25	16.84	0.00	3.97	7.64	11.61	13646.00	0.35
24	12.22	16.75	0.00	4.01	7.81	11.82	13637.00	0.36
25	12.25	16.58	0.00	4.01	8.13	12.13	18237.00	0.35
26	11.91	16.60	0.00	3.55	8.27	11.82	16258.00	0.37
27	12.22	16.12	0.00	3.18	8.19	11.36	19429.00	0.34
28	11.98	18.10	0.00	3.66	7.98	11.64	0.00	0.33
29	12.36	17.65	0.00	4.18	7.70	11.88	0.00	0.33
30	12.38	16.71	0.00	3.66	8.16	11.82	19503.00	0.34
31	12.03	16.34	0.00	3.99	8.07	12.05	14524.00	0.00
Total (mg)	379.50		0.00	125.46	245.71	371.12	0.28	6.56
Average (mgd)	12.24	17.29	0.00	4.05	7.93	11.97	0.01	0.22
Maximum (mgd)	12.71	19.97	0.00	4.71	8.42	12.71	0.02	0.40
						% Difference	100.00	

VWVRA
Flows per Month
2009

APRIL

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	11.78	16.05		3.68	7.85	11.52	14078.00	0.36
2	12.93	15.98		4.34	8.72	13.06	8712.00	0.36
3	11.34	16.01		2.80	7.89	10.69	17024.00	0.00
4	12.42	18.53		3.36	8.02	11.38	0.00	0.39
5	12.07	18.00		3.58	8.09	11.67	0.00	0.34
6	12.20	16.55		3.70	8.30	12.00	13983.00	0.34
7	12.13	16.09		3.78	8.04	11.82	11571.00	0.37
8	12.32	16.43		4.01	8.13	12.14	13637.00	0.34
9	12.04	16.25		3.89	8.22	12.11	12966.00	0.35
10	12.54	16.89	2.00	3.67	8.11	13.78	6744.00	0.34
11	12.54	19.25	1.00	4.63	8.11	13.74	0.00	0.00
12	11.85	19.03		4.00	8.41	12.41	0.00	0.00
13	12.44	16.75		3.97	7.89	11.85	13325.00	0.42
14	12.20	16.67		3.87	7.52	11.38	4566.00	0.34
15	12.20	16.49		4.11	8.22	12.33	8959.00	0.34
16	12.14	16.83	0.50	4.04	7.66	12.20	11025.00	0.03
17	12.11	16.11		4.41	7.17	11.58	9278.00	0.59
18	12.06	18.13		4.14	7.33	11.47	0.00	0.36
19	12.39	17.41		4.13	8.21	12.34	0.00	0.34
20	12.30	16.88		4.38	7.78	12.16	14290.00	0.36
21	11.78	16.62		4.31	7.85	12.16	9478.00	0.41
22	11.68	16.45		3.81	7.85	11.66	21899.00	0.45
23	11.96	16.61	2.00	4.30	7.61	13.91	16241.00	0.13
24	12.04	15.52	5.60	2.67	4.66	12.93	3600.00	0.39
25	12.07	18.09	4.00	3.32	5.48	12.80	0.00	0.36
26	12.43	19.22	4.00	4.34	5.95	14.30	0.00	0.36
27	11.95	18.39		4.87	7.08	11.95	8725.00	0.36
28	12.07	17.71		4.75	6.96	11.71	10591.00	0.36
29	12.26	16.65		5.79	6.78	12.57	11866.00	0.36
30	11.94	16.50		4.20	6.89	11.09	8525.00	0.38

Total (mg)	364.18	19.10	120.85	226.78	366.71	0.25	9.53
Average (mgd)	12.14	2.73	4.03	7.56	12.22	0.01	0.32
Maximum (mgd)	12.93	5.60	5.79	8.72	14.30	0.02	0.59
% Difference						100.00	

VVWRA
Flows per Month
2009

MAY

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	11.93	15.31		4.45	7.44	11.89	14687.00	0.00
2	12.08	18.23		4.32	7.16	11.49	0.00	0.40
3	12.53	18.07		4.49	7.80	12.29	0.00	0.35
4	12.28	16.91		3.79	7.83	11.62	6432.00	0.38
5	12.17	16.92		1.90	7.59	9.48	8525.00	0.41
6	12.33	16.21		6.56	7.91	14.47	12309.00	0.43
7	12.05	16.32		1.85	7.85	9.70	9071.00	0.00
8	12.14	16.47		6.33	7.46	13.78	8900.00	0.89
9	12.34	18.34		4.39	7.66	12.04	0.00	0.44
10	11.90	17.90		4.02	7.67	11.69	0.00	0.45
11	12.44	16.97		4.63	8.17	12.80	11025.00	0.47
12	12.00	16.68		4.50	7.21	11.71	13983.00	0.53
13	12.16	16.56		4.44	7.64	12.07	8262.00	0.51
14	12.05	16.36		4.47	7.44	11.91	5246.00	0.50
15	11.96	15.78		4.37	7.02	11.38	7716.00	0.50
16	11.98	18.25		4.53	7.17	11.70	0.00	0.48
17	12.22	17.92		4.12	7.52	11.64	0.00	0.48
18	12.05	16.47		4.04	7.56	11.60	11025.00	0.54
19	11.94	16.73		4.39	7.29	11.68	4912.00	0.54
20	11.89	16.10		4.42	7.39	11.81	11059.00	0.51
21	12.13	16.27		4.50	7.29	11.79	9166.00	0.49
22	11.78	15.73		4.33	7.48	11.80	16987.00	0.49
23	12.25	18.04		4.32	7.44	11.76	0.00	0.46
24	11.44	17.27		3.97	7.07	11.05	0.00	0.45
25	12.47	18.67		4.06	7.63	11.69	0.00	0.46
26	12.04	16.48		4.55	7.58	12.13	6866.00	0.48
27	11.91	16.01		3.93	7.41	11.34	9639.00	0.55
28	11.57	16.07		3.87	6.97	10.84	12628.00	0.48
29	11.74	15.14		4.34	7.42	11.77	13325.00	0.48
30	12.01	17.98		4.07	7.24	11.31	0.00	0.46
31	12.18	17.52		5.20	7.72	12.92	0.00	0.46
Total (mg)	373.96		0.00	133.15	232.03	365.15	0.20	14.07
Average (mgd)	12.06	16.89	ERROR	4.30	7.48	11.78	0.01	0.45
Maximum (mgd)	12.53	18.67	0.00	6.56	8.17	14.47	0.02	0.89
						% Difference	100.00	

VWRA
Flows per Month
2009

JUNE

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	12.15	16.34		3.49	7.26	10.74	21183.00	0.49
2	11.76	15.83		4.21	7.21	11.42	2500.00	0.47
3	11.87	16.47		5.46	6.69	12.15	22447.00	0.24
4	11.91	15.79		4.20	7.21	11.41	8498.00	0.43
5	12.11	17.22		4.29	7.58	11.87	12458.00	0.45
6	12.09	18.10		3.79	7.22	11.01	0.00	0.45
7	12.20	18.19		4.23	7.74	11.96	0.00	0.45
8	12.21	15.90		4.38	7.58	11.96	11025.00	0.46
9	12.27	16.53		4.24	7.50	11.74	4366.00	0.47
10	11.60	15.95		3.72	7.49	11.21	15625.00	0.46
11	12.07	17.40		3.95	7.80	11.75	6459.00	0.48
12	12.10	16.32		3.95	8.38	12.33	7412.00	0.00
13	12.15	18.18		3.79	7.86	11.65	0.00	0.47
14	11.01	16.53		2.84	6.43	9.27	0.00	0.00
15	12.02	16.26		3.87	7.24	11.11	8759.00	0.91
16	11.98	15.68		4.15	7.86	12.01	6459.00	0.46
17	11.92	15.30		4.24	7.48	11.72	10450.00	0.45
18	11.51	16.37		4.03	7.53	11.55	11259.00	0.47
19	11.98	15.96		4.35	7.61	11.96	6866.00	0.47
20	11.79	17.96		3.91	7.76	11.67	0.00	0.45
21	11.63	17.96		4.10	7.48	11.58	0.00	0.45
22	12.11	17.44		3.85	7.53	11.38	9071.00	0.47
23	11.53	17.14		3.56	8.04	11.61	9278.00	0.49
24	11.99	15.92		3.84	7.83	11.67	8759.00	0.48
25	11.15	15.66		3.59	8.01	11.60	13091.00	0.49
26	11.68	16.00		3.78	7.55	11.32	6866.00	0.50
27	11.71	16.00		3.78	7.42	11.20	0.00	0.50
28	11.78	16.52		4.23	7.93	12.16	0.00	0.54
29	11.85	15.71		3.94	7.74	11.68	15591.00	0.59
30	11.64	15.36		3.90	7.74	11.64	2300.00	0.58
Total (mg)	355.77		0.00	119.66	226.70	346.33	0.22	13.62
Average (mgd)	11.86	16.53	ERROR	3.99	7.56	11.54	0.01	0.45
Maximum (mgd)	12.27	18.19	0.00	5.46	8.38	12.33	0.02	0.91
						% Difference	100.00	

VVWRA
Flows per Month
2009

JULY

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	11.65	16.63		4.04	7.68	11.72	7916.00	0.55
2	11.81	17.00		4.77	7.88	12.65	15391.00	0.60
3	11.78	17.91		3.47	7.58	11.04	0.00	0.53
4	11.29	17.68		4.31	7.51	11.81	0.00	0.51
5	11.68	16.04		3.45	7.69	11.14	0.00	0.52
6	11.95	15.49		3.94	7.81	11.75	8932.00	0.56
7	11.04	14.82		3.84	7.49	11.33	8725.00	0.60
8	11.65	15.41		3.45	6.84	10.29	12109.00	0.55
9	11.53	15.45		3.87	7.34	11.21	7300.00	0.55
10	11.75	15.85		3.75	7.26	11.01	8974.00	0.55
11	11.71	17.13		3.97	7.42	11.39	0.00	0.54
12	11.88	16.62		3.52	7.81	11.33	0.00	0.53
13	11.52	15.51		3.40	7.75	11.15	6866.00	0.54
14	11.75	15.48		3.75	7.47	11.22	6659.00	0.61
15	11.65	15.81		3.82	7.67	11.49	2500.00	0.62
16	11.50	15.56		3.55	7.67	11.23	6459.00	0.62
17	11.61	15.85		3.60	7.62	11.22	0.00	0.59
18	11.50	15.80		4.02	8.06	12.08	0.00	0.60
19	9.21	16.73		3.50	7.13	10.63	0.00	0.57
20	14.26	15.78		3.77	8.37	12.13	8725.00	0.60
21	12.32	15.88		3.40	7.37	10.77	2500.00	0.69
22	11.21	15.24		3.41	7.83	11.24	14921.00	0.62
23	11.36	15.42		3.80	7.81	11.61	4366.00	0.63
24	11.84	15.79		3.00	7.98	10.98	14439.00	0.59
25	11.71	17.08		3.85	7.69	11.54	0.00	0.59
26	11.94	16.70		3.82	8.22	12.04	0.00	0.59
27	11.46	15.67		3.40	7.39	10.79	8959.00	0.62
28	11.45	18.32		3.50	7.79	11.29	2300.00	0.63
29	11.69	15.22		3.93	8.00	11.93	5416.00	0.60
30	11.64	15.66		3.30	7.42	10.72	0.00	0.60
31	11.95	15.90		3.59	7.84	11.43	8291.00	0.58
Total (mg)	361.29		0.00	114.79	237.39	352.16	0.16	18.08
Average (mgd)	11.65	16.11	ERROR	3.70	7.66	11.36	0.01	0.58
Maximum (mgd)	14.26	18.32	0.00	4.77	8.37	12.65	0.02	0.69
						% Difference	100.00	

VWRA
Flows per Month
2009

AUGUST

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	11.93	17.23		3.50	7.68	11.18	0.00	0.59
2	11.92	16.90		4.03	7.86	11.89	0.00	0.57
3	11.89	16.25		3.93	7.79	11.72	0.00	0.57
4	11.71	15.33		4.08	7.53	11.61	10818.00	0.61
5	11.77	15.33		3.75	7.78	11.53	12075.00	0.60
6	11.93	15.55		3.92	8.19	12.11	6225.00	0.58
7	12.04	16.26		3.53	7.84	11.37	12116.00	0.57
8	11.85	18.75		3.72	7.66	11.38	0.00	0.56
9	11.78	17.00		3.89	7.40	11.29	0.00	0.57
10	11.85	15.51		4.02	7.65	11.66	2066.00	0.60
11	11.92	15.25		3.82	7.54	11.37	4366.00	0.59
12	12.60	16.53		4.47	7.89	12.36	7509.00	0.60
13	12.68	16.56		4.10	8.33	12.43	4566.00	0.61
14	13.22	16.86		4.88	7.93	12.81	4159.00	0.60
15	12.92	24.55		3.51	7.79	11.30	0.00	0.57
16	14.45	18.58		5.13	8.86	13.99	0.00	0.57
17	11.76	17.72		3.43	6.82	10.25	18341.00	0.59
18	12.95	17.14		4.07	8.17	12.25	6866.00	0.59
19	13.32	17.44		4.49	8.42	12.91	10046.00	0.57
20	11.87	17.05		4.06	8.52	12.57	2500.00	0.56
21	14.09	16.56		4.32	8.54	12.86	2066.00	0.56
22	12.79	19.00		4.59	8.01	12.60	0.00	0.51
23	13.64	19.05		4.89	8.01	12.89	0.00	0.51
24	13.00	17.38		4.33	8.31	12.65	7100.00	0.54
25	12.98	17.44		4.47	8.51	12.97	8525.00	0.55
26	13.02	17.00		4.35	8.36	12.71	6459.00	0.56
27	13.12	17.11		4.49	8.42	12.90	2300.00	0.57
28	12.82	16.12		3.99	8.19	12.17	2066.00	0.57
29	13.08	20.81		4.50	7.88	12.38	0.00	0.57
30	13.09	18.89		4.86	8.34	13.19	0.00	0.53
31	13.01	17.17		4.22	7.69	11.91	9639.00	0.56

Total (mg)	391.00	129.34	247.91	377.21	17.70
Average (mgd)	12.61	4.17	8.00	12.17	0.57
Maximum (mgd)	14.45	5.13	8.86	13.99	0.61
			% Difference	100.00	

VWVRA
Flows per Month
2009

SEPTEMBER

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	12.84	17.47		4.18	8.71	12.89	6432.00	0.56
2	13.52	17.28		4.50	8.62	13.12	13091.00	0.56
3	12.44	17.37		4.14	8.35	12.49	8150.00	0.51
4	11.41	18.24		4.73	7.20	11.93	11905.00	0.51
5	13.16	17.98		4.30	8.46	12.76	0.00	0.50
6	11.75	18.72		4.15	7.11	11.26	0.00	0.47
7	13.72	19.71		4.66	7.90	12.57	0.00	0.46
8	12.62	17.65		3.96	8.70	12.66	11025.00	0.51
9	13.09	17.63		4.16	8.45	12.60	2300.00	0.51
10	12.68	17.24		3.62	8.59	12.21	8525.00	0.53
11	12.52	15.27		4.28	8.73	13.01	10825.00	0.51
12	12.13	18.10		4.60	8.31	12.91	0.00	0.50
13	13.03	18.64		4.70	7.84	12.54	0.00	0.45
14	12.65	17.43		4.62	8.22	12.84	4366.00	0.48
15	12.41	16.87		4.17	8.38	12.54	4366.00	0.48
16	12.83	17.25		4.26	7.46	11.72	9809.00	0.54
17	12.97	17.29		4.47	8.15	12.62	5480.00	0.48
18	12.38	15.81		4.56	7.84	12.40	2300.00	0.48
19	12.46	18.29		5.34	8.07	13.41	0.00	0.46
20	12.84	18.39		4.37	7.68	12.05	0.00	0.45
21	12.80	17.82		4.79	7.56	12.36	2300.00	0.47
22	12.81	17.40		4.56	7.87	12.43	12684.00	0.45
23	13.01	17.26		4.28	7.64	11.93	3350.00	0.47
24	12.80	17.48		4.29	7.85	12.15	0.00	0.48
25	12.32	16.21		4.68	8.26	12.94	6459.00	0.46
26	12.43	18.31		4.75	7.89	12.64	0.00	0.46
27	12.28	18.10		5.33	7.55	12.88	0.00	0.46
28	12.02	16.84		3.68	7.52	11.20	4366.00	0.45
29	12.64	17.75		3.98	7.82	11.79	6459.00	0.45
30	13.38	17.65		4.96	8.15	13.11		0.00
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Total (mg)	379.94		0.00	133.07	240.88	373.96	0.13	13.59
Average (mgd)	12.66	17.58	ERROR	4.44	8.03	12.47	0.00	0.45
Maximum (mgd)	13.72	19.71	0.00	5.34	8.73	13.41	0.01	0.56
						% Difference		
						100.00		

VWRA
Flows per Month
2009

OCTOBER

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	12.95	17.51		4.36	7.70	12.06	2300.00	0.46
2	13.39	16.69		4.90	8.43	13.33	14723.00	0.00
3	13.16	19.12		4.66	8.00	12.66	0.00	0.47
4	13.56	19.33		4.98	8.28	13.25	0.00	0.00
5	13.99	18.10		5.16	8.13	13.29	6198.00	0.44
6	12.65	18.17		4.26	7.51	11.77	12012.00	0.43
7	13.63	17.89		4.98	8.30	13.27	11815.00	0.00
8	13.04	17.71		4.37	7.28	11.65	7546.00	0.53
9	13.11	16.89		4.85	8.51	13.36	7100.00	0.02
10	13.16	19.42		5.03	8.24	13.27	0.00	0.06
11	12.55	18.94		5.26	8.04	13.30	0.00	0.51
12	12.69	17.58		4.52	7.28	11.80	12209.00	0.45
13	11.92	16.64		4.00	7.52	11.52	8859.00	0.08
14	12.07	16.84		4.13	7.92	12.05	10116.00	0.56
15	12.02	16.32		3.92	7.59	11.51	12812.00	0.50
16	12.72	15.86		4.43	8.30	12.73	5266.00	0.05
17	12.96	19.23		4.81	8.11	12.91	0.00	0.08
18	13.17	18.80		4.97	7.76	12.73	0.00	0.58
19	13.30	18.07		4.68	7.98	12.67	7666.00	0.56
20	13.05	18.16		4.84	8.55	13.38	9425.00	0.07
21	13.16	17.91		5.07	7.65	12.73	11825.00	0.51
22	13.04	17.60		5.05	8.00	13.04	3180.00	0.49
23	13.07	16.81		5.00	8.20	13.20	9478.00	0.09
24	13.62	19.71		5.24	8.57	13.81	0.00	0.07
25	12.95	19.42		4.82	7.62	12.44	0.00	0.52
26	13.02	17.90		4.92	8.03	12.95	7359.00	0.47
27	13.30	18.04		4.97	8.62	13.59	8625.00	0.00
28	12.94	17.49		4.78	7.98	12.76	3200.00	0.01
29	13.29	18.40		4.84	7.46	12.30	6559.00	0.48
30	13.04	16.84		3.30	8.33	11.63	0.00	0.01
31	13.50	20.08		2.69	8.80	11.49	0.00	0.02
Total (mg)	404.02	0.00	0.00	143.79	248.69	392.45	0.18	8.54
Average (mgd)	13.03	17.98	ERROR	4.64	8.02	12.66	0.01	0.28
Maximum (mgd)	13.99	20.08	0.00	5.26	8.80	13.81	0.01	0.58
						% Difference	100.00	

		% Difference	
		100.00	

VWRA
Flows per Month
2009

NOVEMBER

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mejave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	13.57	19.29		2.63	8.01	10.64	0.00	0.53
2	13.24	17.65		2.63	7.96	10.59	13557.00	0.46
3	12.98	17.47		2.44	8.03	10.47	3200.00	0.03
4	13.12	17.22		4.51	8.03	12.54	4800.00	0.50
5	13.09	17.34		4.80	7.63	12.43	7359.00	0.45
6	13.35	17.03		4.65	8.43	13.08	8800.00	0.02
7	13.71	19.61		5.10	8.75	13.85	0.00	0.05
8	13.50	19.76		4.46	7.63	12.09	0.00	0.49
9	13.51	17.70		5.05	8.45	13.49	9425.00	0.48
10	12.76	16.76		4.38	7.90	12.28	13246.00	0.04
11	13.71	18.76		5.08	8.67	13.75	0.00	0.04
12	12.98	18.12		4.77	7.99	12.76	18205.00	0.53
13	13.30	17.17		4.85	8.18	13.03	3200.00	0.02
14	13.61	19.86		5.11	8.34	13.45	0.00	0.03
15	13.72	19.93		5.27	7.61	12.87	0.00	0.48
16	13.43	18.20		4.08	8.32	12.40	11825.00	0.01
17	13.31	17.88		4.82	8.25	13.07	12605.00	0.08
18	13.89	17.88		5.51	8.02	13.53	5246.00	0.51
19	13.03	17.94		4.57	8.37	12.94	10278.00	0.03
20	13.19	16.73		4.70	9.02	13.71	17118.00	0.05
21	13.68	20.01		5.11	8.21	13.31	0.00	0.02
22	13.21	19.53		4.47	7.63	12.11	0.00	0.50
23	13.39	18.18		4.84	8.92	13.76	5266.00	0.02
24	13.52	18.36		4.69	8.09	12.78	13891.00	0.50
25	14.63	19.01		5.09	8.83	13.92	8466.00	0.03
26	13.03	22.85		4.69	8.27	12.96	0.00	0.06
27	11.71	17.07		4.26	7.73	11.99	0.00	0.21
28	12.31	18.61		3.71	8.34	12.06	0.00	0.03
29	12.82	18.77		4.75	8.09	12.85	0.00	0.49
30	13.26	18.07		3.79	7.42	11.21	14625.00	0.02
Total (mg) 398.56 134.81 245.12 379.92 0.18 6.70								
Average (mgd) 13.29 4.49 8.17 12.66 0.01 0.22								
Maximum (mgd) 14.63 5.51 9.02 13.92 0.02 0.53								
						% Difference 100.00		

VWRA
Flows per Month
2009

DECEMBER

Date	Influent Flow (mgd)	Influent Peak (mgd)	North Percolation Pond Flow (mgd)	South Percolation Pond Flow (mgd)	Mojave Effluent (MGD)	Sum of Discharged Flows (mgd)	Septage Flow (gpd)	Reclaimed Flow to SCLA (mgd)
1	13.27	17.66		5.16	8.53	13.69	12732.00	0.06
2	13.99	17.73		4.90	8.16	13.06	11825.00	0.50
3	12.64	17.66		4.70	8.27	12.97	7666.00	0.04
4	13.35	16.78		4.90	7.95	12.86	11825.00	0.04
5	13.49	19.21		5.15	8.50	13.65	0.00	0.14
6	13.94	19.73		4.48	7.49	11.97	0.00	0.53
7	13.56	18.32		5.37	8.20	13.58	13266.00	0.02
8	13.61	18.29		4.77	8.42	13.19	15025.00	0.06
9	13.85	17.99		4.98	8.73	13.71	8625.00	0.14
10	13.24	17.58		4.77	7.99	12.75	13891.00	0.14
11	12.97	16.70		4.81	8.34	13.15	4466.00	0.11
12	13.74	19.48		5.36	8.14	13.50	0.00	0.06
13	13.84	19.81		4.50	8.71	13.21	0.00	0.05
14	13.56	17.76		5.07	8.39	13.46	5266.00	0.04
15	13.24	17.39		4.82	8.65	13.47	8625.00	0.01
16	13.74	17.49		4.90	8.00	12.90	4159.00	0.07
17	12.69	16.42		4.51	8.51	13.01	7666.00	0.03
18	13.43	18.51		4.55	8.27	12.83	9759.00	0.26
19	13.54	20.10		4.83	8.60	13.43	0.00	0.02
20	13.38	19.55		4.77	8.12	12.89	0.00	0.39
21	13.35	18.53		5.01	8.11	13.12	4159.00	0.01
22	13.63	18.69		4.42	8.02	12.44	5266.00	0.00
23	14.05	19.28		4.61	8.59	13.20	8625.00	0.08
24	13.97	21.25		5.62	8.50	14.12	0.00	0.05
25	13.08	19.08		4.66	8.43	13.09	0.00	0.05
26	13.96	19.82		2.35	8.48	10.83	0.00	0.01
27	13.22	20.11		7.22	7.62	14.85	0.00	0.47
28	13.73	19.39		4.92	8.45	13.37	14225.00	0.00
29	13.56	18.97		4.82	8.19	13.01	0.00	0.04
30	13.81	18.53		4.96	8.71	13.67	8759.00	0.00
31	13.71	19.94		4.69	8.38	13.08	0.00	0.06
Total (mg)	419.14		0.00	150.58	257.45	408.06	0.18	3.46
Average (mgd)	13.52	18.64	ERROR	4.86	8.30	13.16	0.01	0.11
Maximum (mgd)	14.05	21.25	0.00	7.22	8.73	14.85	0.02	0.53
						% Difference	100.00	

SECTION 1

ANNUAL SUMMARY

OF

OPERATIONS AND MAINTENANCE

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OPERATIONS AND SECURITY FILE

Victor Valley Wastewater Reclamation Authority

20111 Shay Road • Victorville • CA • 92394



2009 Annual Report

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Calendar Year 2009

**ANNUAL SUMMARY OF
OPERATIONS AND MAINTENANCE**

OVERALL TREATMENT

Effluent removal efficiencies averaged 99.1% for BOD and 99% for ammonia nitrogen. The effluent to the Mojave River averaged 3.18 mg/l BOD and .28 mg/l ammonia nitrogen. The influent to the treatment facility averaged 348.82 mg/l BOD, and 26.52 mg/l ammonia nitrogen. The influent flow to the facility averaged 12.49 MGD, the effluent flow to the Mojave River averaged 7.88 MGD and the percolation pond effluent averaged 4.32 MGD.

**CONSTRUCTION
ACTIVITY**

SSC Construction completed the 14.5 and 18 mgd expansion projects in 2008 and 2009. VVWRA is re-evaluating the hydraulic modeling of its interceptors in the upper and lower narrows and has initiated the process to add UV disinfection, retrofit the current Traveling Bridge filters with Aqua Diamond cloth media filtration, incorporate fixed Intergrated Film Activated Sludge process (IFAS), recycle water pump station, rehab primary sedimentation basins 1-4, to include installation of helical skimmers, install a biogas scrubber unit, sludge dewatering, concrete lining of emergency storage ponds and construction of Hesperia and Town of Apple Valley WRP's.

**PRELIMINARY
TREATMENT**

Both bar screens and both grit tanks were in service and operated satisfactorily during the year. The screenings were compacted to remove excess water. Screenings and grit were hauled off-site for landfill disposal. Preventative maintenance was performed during the year on scheduled equipment.

PRIMARY TREATMENT

6 out of 8 primary sedimentation basins were in service during 2009. Solids and thickened scum removed by the primary treatment system were pumped to the anaerobic digesters for treatment. All other pumps, tanks and equipment related to the primary treatment process operated satisfactorily. Preventative maintenance was performed during the year on scheduled equipment.

**SECONDARY
TREATMENT**

Aeration basins No.'s 1-8 were in service in a conventional mode of treatment, operating with four paired basins. Each pair of basins was operated with an anoxic selector for complete nitrification, partial denitrification, and alkalinity recovery.

Aeration basins No.'s 9-12 and associated equipment built for the 18 MGD expansion were placed on-line March 2009.

During the reporting period staff rehabbed aeration basins 1-8 diffusers and air distribution systems. In addition internal recycle pumps, additional DO (dissolved oxygen), ORP (oxidation reduction potential) probes were installed to all units to enhance nitrification/denitrification to comply with more stringent effluent limitation for ammonia nitrogen and nitrate nitrogen.

During the year the aeration system was supplied air from the Facility's five dual-fuel gas-fired internal combustion, six-cylinder engine blowers. The backup 500 HP electric blower serviced as a standby for the gas-engine blowers.

Nine (9) secondary clarifiers and seven (7) of the return activated sludge (RAS) pumps were in service and operated satisfactorily during the year.

Waste activated sludge was removed from the secondary treatment system and pumped to the dissolved air floatation thickeners (DAFT's) for dewatering. All pumps, tanks, and equipment related to the secondary treatment process operated satisfactorily. Preventative maintenance was performed during the year on scheduled equipment.

PERCOLATION PONDS

A total of 1579 million gallons of undisinfected secondary effluent was discharged to the percolation ponds during the year.

TERTIARY TREATMENT

A total of 2877 million gallons of secondary effluent received tertiary filtration and disinfection and was discharged to the Mojave River. The two traveling bridge gravity sand filters and the six Dyna-sand moving bed filters were used to reduce solids in the final effluent prior to chlorination. Aluminum sulfate (alum) was added to the filter influent to coagulate the solids and improve filter efficiency. All pumps, tanks and equipment related to the tertiary process operated satisfactorily. Preventative maintenance was performed during the year on scheduled equipment.

The disinfection system operated satisfactorily during the year and gaseous chlorine in one-ton containers was used to disinfect the tertiary effluent, and aqueous ammonia usage was minimized and only added as needed to the wastewater stream immediately prior to chlorination to improve disinfection. For the latter the ammonia feed system used 30% aqueous ammonia to react with chlorine and form monochloroamines, which was found to be necessary due to the degree of nitrification achieved by the secondary treatment system. The dechlorination system operated satisfactorily during the year, and liquid sodium bisulfite in a 38% solution was used to remove chlorine from the effluent prior to discharge to the Mojave River.

TOTAL EFFLUENT FLOW

When the percolation pond flow and the tertiary treatment flow are added together, approximately 4457 million gallons were discharged by the Facility in 2009.

BIOSOLIDS TREATMENT

Both dissolved air floatation thickeners (DAFT's) were in service during the year and operated satisfactorily for waste activated sludge dewatering. After thickening using the DAFT's, thickened WAS was pumped anaerobic digesters or solids storage lagoons. Primary sludge was pumped to the anaerobic digesters.

Digesters No. 4 and 5 and associated equipment which were build as part of the 14-18 MGD expansion were placed in service during the reporting period.

All five (5) anaerobic digesters were in service for complete mix mesothermic digestion. Anaerobically digested sludge was drained by gravity or pumped to the No. 1 and No. 2 liquid sludge storage lagoons. Digested sludge from the No. 1 and No. 2 sludge storage lagoons was pumped to the sludge drying beds for solar dewatering. The gravity belt thickener served as stand-by for sludge dewatering to provide additional capacity for solids handling. Dried biosolids were mechanically removed from the drying beds and placed on drying bed #4 as a staging area before being transferred to the sludge storage pad after lab results confirmed compliance with 40 CFR regulations. A total of approximately 3,531 dry tons of Class A EQ dried biosolids were removed from the Facility for disposal using agricultural land application during 2009. At the end of the year 5,253 dry tons of biosolids were in storage awaiting disposal.

All pumps, tanks, and equipment related to the sludge facility operated satisfactorily. Preventative maintenance was performed during the year on scheduled equipment.

METER CALIBRATION

VVWRA staff and/or an outside contractor calibrated the meters listed below various times during the year:

- Influent Flow
- Primary Effluent to Equalization Flow
- No. 1 through No. 8 RAS Flows
- Final Effluent Turbidity
- Aeration Basin 1-12 Influent Flow
- Influent Conductivity
- South Percolation Pond Flow Meters
- Effluent Conductivity
- Secondary Effluent Turbidity
- Final Effluent to the Mojave River Flow
- Equalization Basin Effluent Flow
- Influent pH
- Effluent Cl₂
- Effluent pH

ALARM MONITORING

All critical process alarms were checked weekly from their source to the main control system. The Facility's SCADA computer alarm dialer system and backup internet messaging system was in service and was functional during the entire year. Most of the Facility's alarm points were routed through the SCADA system. Several alarm points were routed from the main control panel to a private alarm

company, and these were checked once per week during the year. Eventually all of the Facility's alarm points will be routed through the SCADA system, and the need for a private alarm company will be eliminated except for redundant fire alarm communication.

**SEPTAGE WASTE
ACCEPTED**

During 2009 a total of 2.29 million gallons of septage and chemical toilet waste were received at the interim septage receiving facility for treatment and disposal.

**GROUNDWATER
MONITORING WELLS**

The direction of groundwater movement in the four monitoring wells located at the treatment facility was approximately as follows:

Well No.	Direction
OW-4	NE
OW-6	NE
NW-2	NE
NW-3	NE
SP-1	NE
SP-2	NE
SP-3	E
SP-4	WNW

Maps of the facility and a graphical depiction of groundwater flow are attached to this report.

**EFFLUENT TOXICITY
ANALYSIS**

Five acute toxicity samples were collected during the year from VVWRA's post-chlorination and dechlorination final effluent. Acute toxicity analyses were performed using fathead minnows, as required by the Facility's NPDES permit. The sample for July 7, 2009 exhibited unusual results; staff resampled on July 22, 2009 and received acceptable results. The remaining samples did not exhibit significant acute toxicity as defined by the NPDES Permit.

Chronic toxicity samples were collected on January 20, 2009 from VVWRA's post-chlorination and dechlorination final effluent and from the Mojave River, both upstream and downstream of the discharge. Tests were conducted using both Ceriodaphnia and fathead larvae. The facility final effluent failed on reproduction, accelerated monitoring was initiated at this point. Three consecutive successful sampling events took place April 20, May 18 and June 15, 2009. The Chronic Fathead Larvae results for May 18, and June 15, 2009 exhibited toxicity. In conversation with the contract laboratory it was determined that

the wrong methodology was used, survival and teratogenicity was used where survival and growth was required. A resample on July 7, 2009 proved compliant. Both upstream and downstream samples exhibited chronic toxicity using fathead larvae. Resampling was performed for chronic fathead larvae the week of May 18, and June 15, 2009 for upstream and downstream. On the resampling event downstream and upstream failed the week of May 18 and passed the week of June 15, 2009, please refer to aquatic bioassay toxicity tab for results. The results were as follows:

Sample Date	Quarterly			Annual				Annual			
	96 Hour Acute Fathead Minnow			Chronic Ceriodaphnia				Chronic Fathead Larvae			
	Survival - LC50		TU _a	Survival		Reproduction		Survival		Teratogenicity	
			NOEC	TU _c	NOEC	TU _c	NOEC	TU _c	NOEC	TU _c	
01/20/09	100 %		0.00	100.00	1.00	<100.00	>1.00	100.00%	1.00	100.00%	1.00
02/23/09				100.00	1.00	<100.00	>1.00				
03/16/09				100.00	1.00	<100.00	>1.00				
04/20/09	100 %		0.00	100.00	1.00	100.00%	1.00				
05/18/09				100.00	1.00	100.00%	1.00	<100.00%	>1.00	<100.00%	>1.00
06/15/09				100.00	1.00	100.00 %	1.00	<100.00%	>1.00	<100.00%	>1.00
07/07/09	85 %		0.69					100.00%	1.00	100.00%	1.00
07/22/09	100 %		0.00								
10/13/09	100 %		0.00								

Sample	Annual				Annual			
	Chronic Ceriodaphnia				Chronic Fathead Larvae			
	Survival		Reproduction		Survival		Reproduction	
	NOEC	TU _c	NOEC	TU _c	NOEC	TU _c	NOEC	TU _c
Upstream 01/20/09	100.00	1.00	100.00%	1.00	<100.00%	>1.00	<100.00%	>1.00
Upstream 05/18/09	100.00	1.00	100.00%	1.00	<100.00%	>1.00	<100.00%	>1.00
Upstream 06/15/09	100.00	1.00	100.00%	1.00	100.00%	1.00	100.00%	1.00
Downstream	100.00	1.00	<100.00%	>1.00	<100.00%	>1.00	<100.00%	>1.00
Downstream	100.00	1.00	100.00%	1.00	<100.00%	>1.00	<100.00%	>1.00
Downstream	100.00	1.00	100.00%	1.00	100.00%	1.00	100.00%	1.00

RECYCLED WATER AND REUSE

A total of 124.84 million gallons of fully treated reclaimed water were pumped to SCLA for irrigation of the Westwinds Golf Course.

SPILL AND EXCURSION REPORT

There were several excursions during 2009 which have been detailed under separate cover to Lahontan Region Water Quality Control Board.

CERTIFIED WASTEWATER OPERATORS/TECHNICIANS

The following is a list of certified operators that were employed at the treatment facility during 2009:

OPERATIONS

<u>NAME</u>	<u>GRADE</u>	<u>POSITION</u>
Logan Olds	V-9443	General Manager
Gilbert Perez	V-7715	Director of Operations
Roy Dagnino	V-7820	Operator V
Jose Gomez	V-7519	Operator V
James Bryant	IV-9750	Operator IV
Dave Cuomo	III-8333	Operator III
Gabriel E. Chico	III-9209	Operator III
Tom Hinijosa	III-10173	Operator III
Tim Davis	III-8894	Operator III
Mike Tarango	III-8345	Operator III
Carl Carlson	II-5356	Operator II
Bruce Correia	I-8784	Information Systems Coordinator
Rodney Elliot	I-28054	Operator II
Eugene Davis	I-28028	Operator I
Miguel Mendoza		OIT
Randy Gillette		OIT

MAINTENANCE

<u>NAME</u>	<u>GRADE</u>	<u>POSITION</u>
Brent Keaster	IV	Maintenance Supervisor
Pat Nave	IV	Maintenance Technician
Randy Main	III	Maintenance Technician
Mark McGee	III	Maintenance Technician
Troy Minnick	III	Maintenance Technician
Rick Billings	II	Maintenance Technician
Nicholas Turlo	I	Maintenance Technician
Vince Vitale	MIT	Maintenance in Training
Mauricio Marin	II	Electrical/Instrumentation

Date **February 24, 2010**

California Regional Water Quality Control Board
Lahontan Region
15428 Civic Drive, Suite 100
Victorville, CA 92392

Facility Name: Victor Valley Wastewater Reclamation Authority

Address: 20111 Shay Road
Victorville, CA 92394

Contact Person: Logan Olds

Job Title: General Manager

Phone: (760) 246-8638

Email: lolds@vwwra.com

WDR/NPDES Order Number: R6V-2009-004, CA0102822 (Regional Treatment Facility)

WDID Number: 6B360109001

Type of Report (circle one): **Monthly** **Quarterly** **Semi-Annual** **Annual** **Other**

Month(s) (circle applicable month(s)*: **JAN** **FEB** **MAR** **APR** **MAY** **JUN**
JUL **AUG** **SEP** **OCT** **NOV** **DEC**
*annual Reports (circle the first month of the reporting period)

Year: 2009

Violation(s)? (Please check one): NO X **YES***

***If YES is marked complete a-g (Attach Additional information as necessary)**

a) Brief Description of Violation: Multiple violations addressed under separate cover to LRWQCB

b) Section(s) of WDRs/NPDES Permit Violated: Multiple

c) Reported Value(s) or Volume: Varied

d) WDRs/NPDES
Limit/Condition:

Varied

e) Date(s) and Duration of
Violation(s):

Varied

f) Explanation of Cause(s):

Varied

g) Corrective Action(s)
(Specify actions taken and a schedule
for actions to be taken):

Please refer to previously submitted documents

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or require additional information, please contact Logan Olds or Gilbert Perez at the number provided above.

Sincerely,

Signature: 

Name: Logan Olds

Title: General Manager

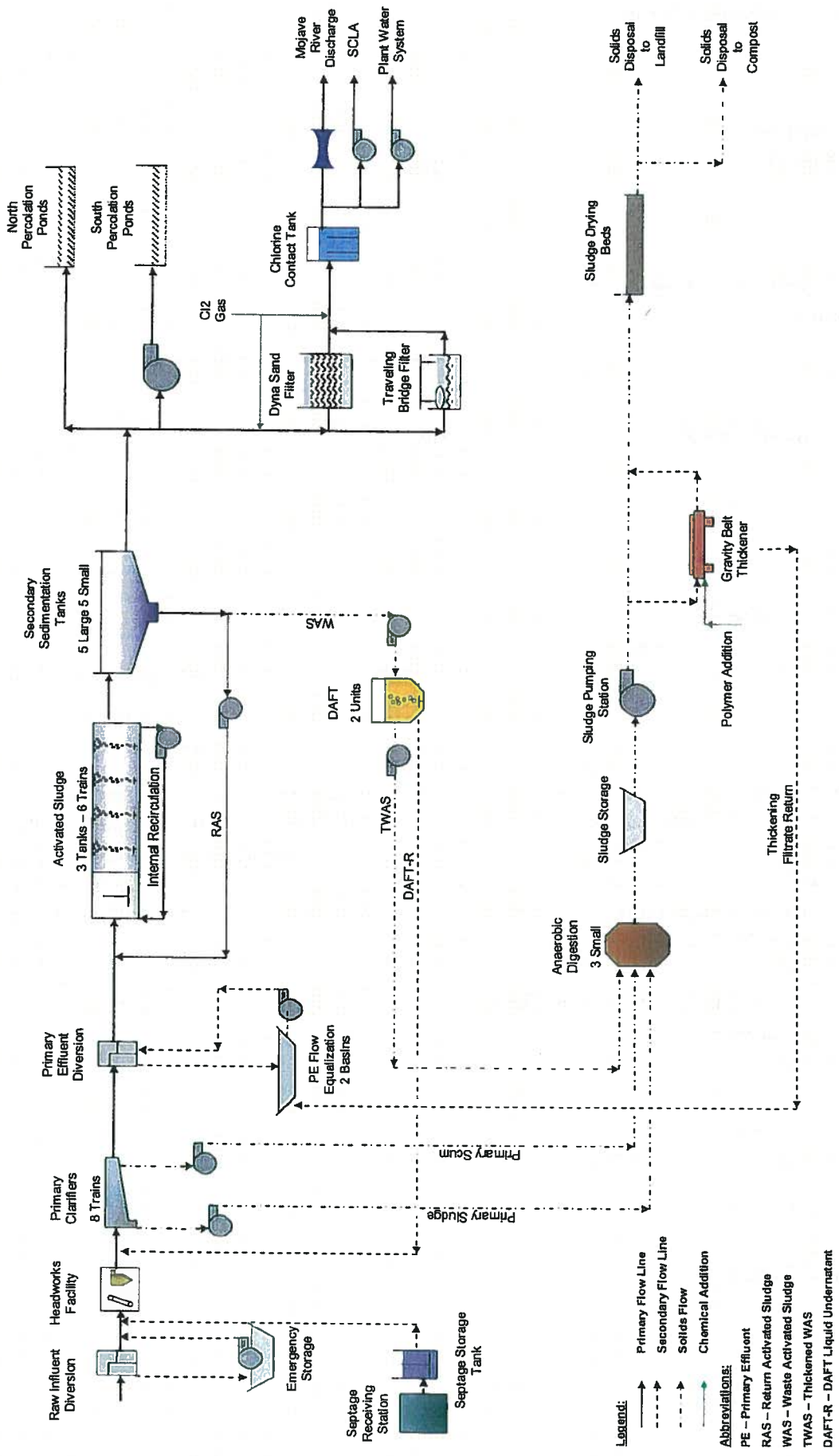


Figure 1.1 – VVWRA Existing Process Schematic (18 MGD Designed Flow - Operation From Present to Dec 2009)

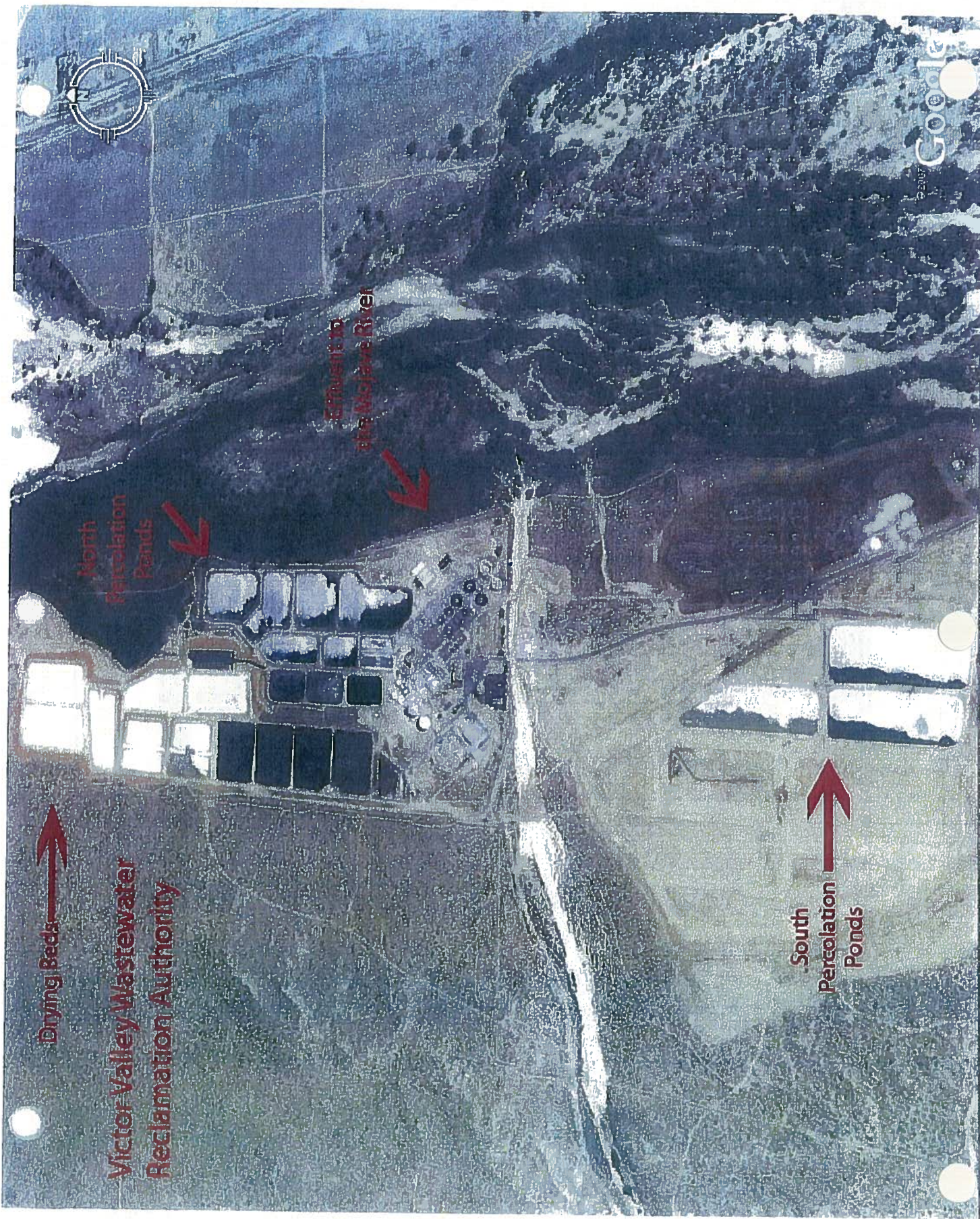
Drying Beds →

Victor Valley Wastewater
Reclamation Authority

North
Percolation
Ponds →

Effluent to
the Mojave River →

South
Percolation
Ponds →





**Mojave River Upstream
Water Monitoring Station**



VVWRA

**VVWRA Upstream
Monitoring Station**

Bryman Rd

Old Turner Rd

Seals Rd

Spencer Rd

Ranch Rd

Turner Rd

Air Expressway Blvd

National Freeway

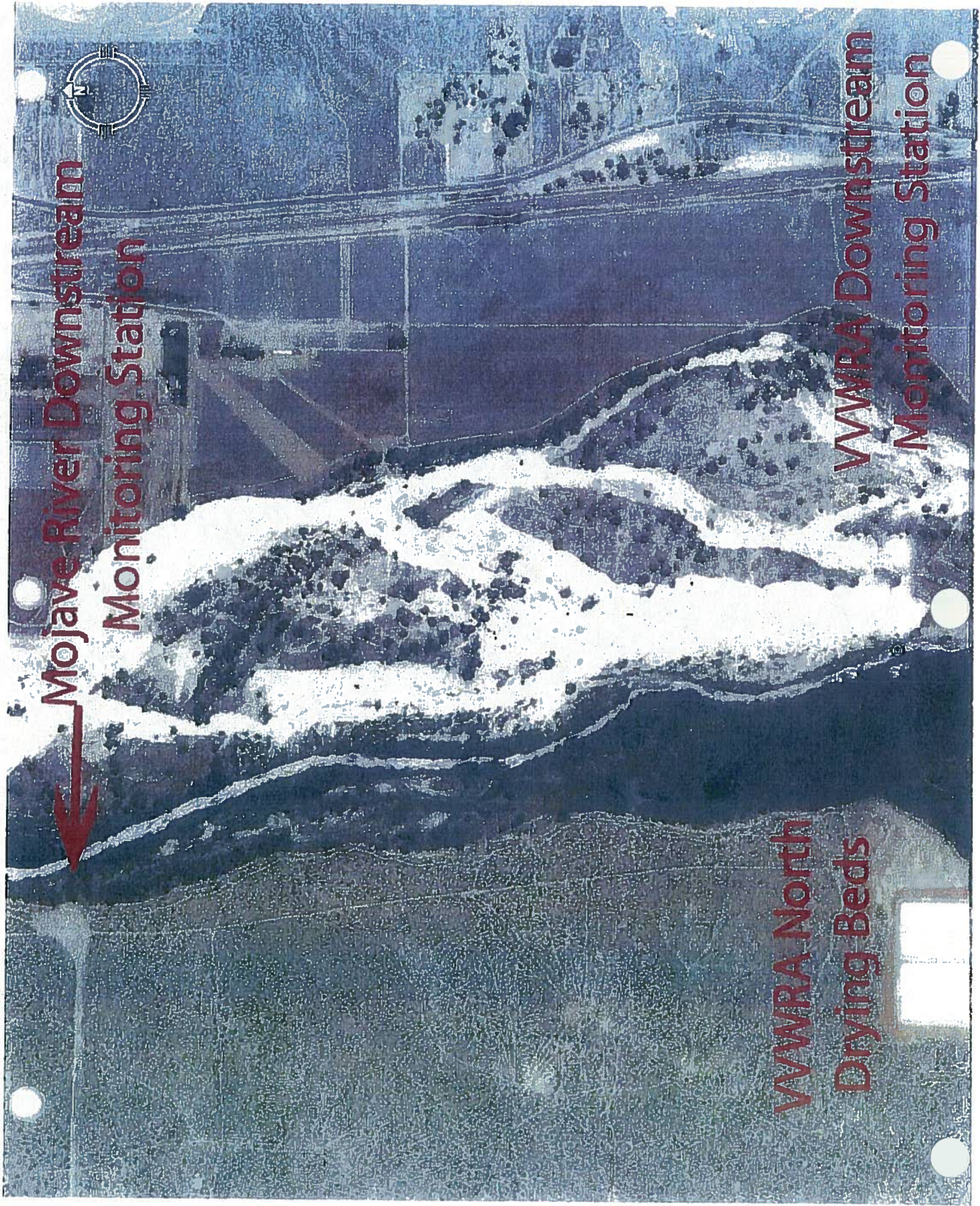


Mojave River Downstream
Monitoring Station



VWRA North
Drying Beds

VWRA Downstream
Monitoring Station



SECTION 5

FACILITY EFFLUENT MONITORING

SECTION 2

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VWVRA Facility Effluent Monitoring - River Discharge 2009 Schedule

Parameter	Units	Type of Sample	Frequency	2009 Sample Month(s)
pH	pH Units	Continuous	Continuous	N/A
Conductivity	µmhos/cm	Continuous	Continuous	N/A
Turbidity	NTU	Continuous	Continuous	N/A
Total Coliform	MPN/100 ml	Grab	Daily	N/A
Chlorine Residual	mg/L	Grab	Daily	N/A
BOD	mg/L	24 Hour Composite	4/Weekly	N/A
Total Suspended Solids	mg/L	24 Hour Composite	4/Weekly	N/A
Temperature	° C	Grab	Weekly	N/A
Dissolved Oxygen	mg/L	Grab	Weekly	N/A
Ammonia - Nitrogen	mg/L as N	Grab	2/Monthly	N/A
Nitrite - Nitrogen	mg/L as N	Grab	2/Monthly	N/A
Nitrate - Nitrogen	mg/L as N	Grab	2/Monthly	N/A
Kjeldahl - Nitrogen	mg/L as N	Grab	2/Monthly	N/A
MBAS	mg/L	24 Hour Composite	Monthly	N/A
Total Dissolved Solids	mg/L	24 Hour Composite	Monthly	N/A
Copper	mg/L	Grab	Monthly	N/A
Sodium	mg/L	Grab	Monthly	N/A
Zinc	mg/L	Grab	Monthly	N/A
Total Cyanide	mg/L	Grab	Monthly	N/A
Bromoform	mg/L	Grab	Monthly	N/A
Chloroform	mg/L	Grab	Monthly	N/A
Dibromochloromethane	mg/L	Grab	Monthly	N/A
Dichlorobromomethane	mg/L	Grab	Monthly	N/A
Bis(2-ethylhexyl)phthalate	mg/L	Grab	Monthly	N/A
Dibenzo(a,h)anthracene	mg/L	Grab	Monthly	N/A
Boron	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Chloride	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Fluoride	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Sulfate	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Total Hardness	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Oil and Grease	mg/L	Grab	Quarterly	Jan-Apr-July-Oct
Volatile Organic Compounds, including MTBE	mg/L	Grab	Annually	July
Base/Neutral/Acid Extractable Organics, including Dioxin	mg/L	Grab	Annually	July
Priority Pollutant Metals	mg/L	Grab	Annually	July
Asbestos	mg/L	Grab	Annually	July
Fecal Coliform	MPN/100 mL	5 Grabs/Month	Annually	July

This schedule reflects renewed NPDES permit requirements effective April 04, 2008.

VWVRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

JANUARY

Date	Continuous			Daily		Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.8	650	1.00	<2.0	<0.010	<3.0	1.0	19.7					
2	6.8	671	1.04	<2.0	<0.010			19.8					
3	6.9	654	1.02	<2.0	<0.010			19.7					
4	6.7	644	1.00	<2.0	<0.010		2.0	19.3					
5	6.7	664	1.18	<2.0	<0.010	3.0	1.0	19.4					
6	6.7	652	1.50	<2.0	<0.010	3.0	2.0	19.6		<0.10	8.6	0.65	
7	6.9	695	1.45	2.0	<0.010	3.0	1.0	19.6					
8	6.7	664	1.54	<2.0	<0.010	3.0	2.0	19.6					
9	6.7	645	1.30	<2.0	<0.010			19.4					
10	7.0	629	1.18	<2.0	<0.010			19.3					
11	6.9	687	1.01	<2.0	<0.010		2.0	19.6					
12	6.8	654	1.06	2.0	<0.010	4.0	2.0	19.6					
13	6.6	658	1.04	2.0	<0.010	3.0	2.0	19.5		<0.10	8.2	0.54	
14	6.8	657	1.01	<2.0	<0.010	3.0	2.0	19.0					
15	6.7	645	1.45	<2.0	<0.010	4.0	2.0	19.6					
16	6.5	628	1.12	<2.0	<0.010			19.4					
17	6.6	642	1.27	<2.0	<0.010			19.6					
18	6.6	635	1.38	<2.0	<0.010			19.6					
19	6.6	655	1.50	<2.0	<0.010	4.0	2.0	19.6					
20	6.8	655	1.50	<2.0	<0.010	3.0	2.0	19.8		<0.10	7.1	0.85	
21	6.7	666	1.45	<2.0	<0.010	3.0	2.0	19.9					
22	6.8	643	1.47	<2.0	<0.010	3.0	3.0	20.0					
23	6.6	641	1.50	<2.0	<0.010			19.9					
24	6.9	637	1.52	<2.0	<0.010			19.7					
25	6.6	633	1.51	<2.0	<0.010		3.0	19.4					
26	6.7	618	1.51	<2.0	<0.010	4.0	3.0	19.3					
27	6.8	635	1.55	<2.0	<0.010	4.0	3.0	19.2		<0.10	10.0	1.00	
28	6.6	639	1.64	<2.0	<0.010	4.0	2.0	19.2					
29	6.6	619	1.50	<2.0	<0.010	3.0	3.0	19.2					
30	6.6	637	1.51	<2.0	<0.010			19.3					
31	6.7	619	1.23	<2.0	<0.010			19.5					
AVG	6.7	647	1.32	<2.0	<0.010	<3.4	2.1	19.5		<0.10	8.5	0.76	
MAX	7.0	695	1.64	2.0	<0.010	4.0	3.0	20.0		<0.10	10.0	1.00	
MIN	6.5	618	1.00	<2.0	<0.010	<3.0	1	19.0		<0.10	7.1	0.54	



Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

FEBRUARY

Date	Continuous			Daily			Four/Weekly			Weekly			Twice/Monthly		
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L		
1	6.5	627	1.01	<2.0	<0.010	<3.0	2.0	19.6	<0.10	<0.10	<0.10	2.00			
2	6.7	626	1.01	<2.0	<0.010	3.0	2.0	19.4	<0.10	<0.10	9.5	2.00			
3	6.8	640	0.93	<2.0	<0.010	3.0	1.0	19.4	<0.10	<0.10	<0.10				
4	6.7	642	0.89	<2.0	<0.010	<3.0	2.0	19.6	<0.10	<0.10	<0.10				
5	6.6	629	1.00	<2.0	<0.010	<3.0	1.0	19.4	<0.10	<0.10	<0.10				
6	6.6	647	1.00	<2.0	<0.010	<3.0	1.0	19.4	<0.10	<0.10	<0.10				
7	6.6	626	0.81	<2.0	<0.010	<3.0	1.0	19.2	<0.10	<0.10	<0.10				
8	6.6	600	0.80	<2.0	<0.010	<3.0	1.0	19.0	<0.10	<0.10	<0.10				
9	6.6	609	0.78	<2.0	<0.010	3.0	2.0	18.8	<0.10	<0.10	<0.10				
10	6.6	599	0.78	<2.0	<0.010	<3.0	1.0	18.9	<0.10	<0.10	<0.10				
11	6.7	626	0.76	<2.0	<0.010	<3.0	1.0	19.1	<0.10	<0.10	11.0	0.98			
12	6.7	579	0.86	<2.0	<0.010	<3.0	1.0	18.8	<0.10	<0.10	<0.10				
13	6.8	616	1.00	<2.0	<0.010	<3.0	1.0	18.7	<0.10	<0.10	<0.10				
14	6.7	608	1.01	<2.0	<0.010	<3.0	1.0	18.9	<0.10	<0.10	<0.10				
15	6.7	607	0.83	<2.0	<0.010	<3.0	1.0	19.0	<0.10	<0.10	<0.10				
16	6.7	590	0.90	<2.0	<0.010	3.0	2.0	18.5	<0.10	<0.10	<0.10				
17	6.8	615	0.98	<2.0	<0.010	3.0	2.0	18.7	<0.10	<0.10	8.0	0.68			
18	6.7	652	0.97	<2.0	<0.010	<3.0	2.0	18.8	<0.10	<0.10	<0.10				
19	6.8	630	0.98	<2.0	<0.010	<3.0	2.0	18.8	<0.10	<0.10	<0.10				
20	6.8	635	0.97	<2.0	<0.010	<3.0	2.0	18.8	<0.10	<0.10	<0.10				
21	6.8	621	0.95	<2.0	<0.010	<3.0	2.0	18.8	<0.10	<0.10	<0.10				
22	6.7	567	0.95	<2.0	<0.010	<3.0	2.0	19.3	<0.10	<0.10	<0.10				
23	6.7	603	1.00	<2.0	<0.010	<3.0	1.0	19.6	<0.10	<0.10	<0.10				
24	6.8	627	1.50	<2.0	<0.010	<3.0	2.0	19.4	<0.10	<0.10	11.0	0.30			
25	6.8	624	1.06	<2.0	<0.010	<3.0	2.0	19.4	<0.10	<0.10	<0.10				
26	6.8	612	1.40	<2.0	<0.010	<3.0	2.0	19.2	<0.10	<0.10	<0.10				
27	6.7	627	1.40	<2.0	<0.010	<3.0	2.0	19.2	<0.10	<0.10	<0.10				
28	6.7	617	1.01	<2.0	<0.010	<3.0	2.0	19.3	<0.10	<0.10	<0.10				
AVG	6.7	618	0.97	<2.0	<0.010	<3.0	1.6	19.2	<0.12	<0.10	9.9	0.99			
MAX	6.8	652	1.50	<2.0	<0.010	3.0	2.0	19.6	0.14	<0.10	11.0	2.00			
MIN	6.5	567	0.76	<2.0	<0.010	<3.0	1	18.5	<0.10	<0.10	8.0	0.30			

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

MARCH

Date	Continuous			Daily			Four/Weekly			Weekly			Twice/Monthly		
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature $^{\circ}$ C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L		
1	6.7	618	1.05	<2.0	<0.010	<3.0	2.0	19.7							
2	6.7	618	0.80	<2.0	<0.010	<3.0	1.0	19.8							
3	6.7	621	0.80	<2.0	<0.010	<3.0	1.0	19.4	0.14	<0.10	11.0	<0.10			
4	6.7	628	0.72	<2.0	<0.010	<3.0	2.0	19.3							
5	6.6	621	0.69	<2.0	<0.010	<3.0	1.0	19.3							
6	6.6	602	0.95	<2.0	<0.010	<3.0		19.2							
7	6.8	622	0.82	<2.0	<0.010	<3.0		19.3							
8	6.6	623	0.80	<2.0	<0.010	<3.0	1.0	19.4							
9	6.7	599	0.68	<2.0	<0.010	<3.0	1.0	19.3							
10	6.7	614	0.80	<2.0	<0.010	<3.0	2.0	19.4	0.11	<0.10	9.9	0.32			
11	6.7	623	1.00	<2.0	<0.010	<3.0		19.5							
12	6.7	644	1.03	<2.0	<0.010	<3.0	2.0	19.6							
13	6.7	630	0.79	<2.0	<0.010	<3.0		19.7							
14	6.8	636	0.80	<2.0	<0.010	<3.0		19.8							
15	7.3	616	0.83	<2.0	<0.010	<3.0	1.0	19.9							
16	6.6	605	0.89	<2.0	<0.010	<3.0	2.0	20.1							
17	6.6	645	0.88	<2.0	<0.010	<3.0	2.0	20.3	0.12	<0.10	8.4	0.47			
18	6.6	631	0.78	<2.0	<0.010	<3.0	3.0	20.4							
19	6.7	623	1.02	<2.0	<0.010	<3.0		20.3							
20	6.6	652	1.03	<2.0	<0.010	<3.0		20.4							
21	6.7	617	1.91	<2.0	<0.010	<3.0		20.3							
22	6.6	613	0.90	<2.0	<0.010	<3.0	2.0	19.8							
23	6.6	623	0.75	<2.0	<0.010	<3.0	2.0	19.9	<0.10	<0.10	8.5	0.54			
24	6.7	593	0.59	<2.0	<0.010	<3.0	2.0	20.1							
25	6.6	643	0.58	<2.0	<0.010	<3.0	2.0	20.1							
26	6.6	629	0.71	<2.0	<0.010	<3.0	2.0	20.3							
27	6.6	596	0.66	<2.0	<0.010	<3.0		20.4							
28	6.7	589	0.92	<2.0	<0.010	<3.0		20.7							
29	6.7	594	0.92	<2.0	<0.010	<3.0	2.0	20.6							
30	6.6	623	1.41	<2.0	<0.010	<3.0	2.0	20.3	<0.10	<0.10	7.6	0.79			
31	6.9	617	1.41	<2.0	<0.010	<3.0	1.0	20.6							
AVG	6.7	620	0.90	<2.0	<0.010	<3.0	1.7	19.9	<0.11	<0.10	9.1	<0.44			
MAX	7.3	652	1.91	<2.0	<0.010	<3.0	3.0	20.7	0.14	<0.10	11.0	0.79			
MIN	6.6	589	0.58	<2.0	<0.010	<3.0	1	19.2	<0.10	<0.10	7.6	<0.10			

VORRA
Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

APRIL

Date	Continuous			Daily		Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N mg/L	TKN as N mg/L
1	6.6	610	1.38	<2.0	<0.010	3.0	2.0	7.9	20.8				
2	6.7	663	1.18	<2.0	<0.010	3.0	2.0	7.9	20.7				
3	6.7	624	1.31	<2.0	<0.010				20.2				
4	6.7	572	1.24	<2.0	<0.010				20.3				
5	6.7	584	1.22	<2.0	<0.010	<3.0	2.0	8.0	20.5				
6	6.7	605	1.10	<2.0	<0.010	3.0	2.0	8.0	20.8	<0.10	<0.10	5.7	0.71
7	6.7	624	1.03	<2.0	<0.010	3.0	5.0	7.8	20.6				
8	6.7	607	1.03	<2.0	<0.010	3.0	4.0	7.8	20.6				
9	6.7	601	0.91	<2.0	<0.010	3.0	5.0	7.8	20.5				
10	6.6	608	0.88	<2.0	<0.010				20.7				
11	6.8	625	0.83	<2.0	<0.010				21.2				
12	6.6	624	0.96	<2.0	<0.010	4.0	3.0	7.5	21.4				
13	6.6	615	0.92	<2.0	<0.010	5.0	7.0	7.5	20.6				
14	6.7	619	1.09	<2.0	<0.010	3.0	8.0	7.9	20.4				
15	6.7	618	1.66	<2.0	<0.010	3.0	6.0	7.9	20.7				
16	6.7	618	1.88	<2.0	<0.010	3.0	4.0	7.9	20.7				
17	6.8	609	1.84	<2.0	<0.010				20.9				
18	6.7	624	1.73	<2.0	<0.010				21.3				
19	6.8	605	1.69	<2.0	<0.010	3.0	2.0	7.9	21.6				
20	6.8	624	1.43	<2.0	<0.010	<3.0	3.0	7.9	21.8				
21	6.7	631	1.63	<2.0	<0.010	4.0	2.0	7.5	22.0				
22	6.6	617	1.66	<2.0	<0.010	4.0	2.0	7.5	21.9				
23	6.6	616	1.92	<2.0	<0.010	4.0	2.0	7.5	21.8				
24	6.7	622	1.77	<2.0	<0.010				21.6				
25	6.8	615	1.06	<2.0	<0.010				21.3				
26	6.8	618	0.93	<2.0	<0.010				21.7				
27	6.7	624	1.26	<2.0	<0.010	3.0	2.0	7.4	21.7				
28	6.6	632	1.47	<2.0	<0.010	3.0	2.0	7.4	21.6				
29	6.5	624	1.64	<2.0	<0.010	4.0	2.0	7.5	21.7				
30	6.6	604	1.60	<2.0	<0.010	3.0	3.0	7.5	21.9				
AVG	6.7	616	1.34	<2.0	<0.010	<3.3	3.3	7.7	21.1	<0.11	<0.10	6.2	0.88
MAX	6.8	663	1.92	2.0	<0.010	5.0	8.0	8.0	22.0	0.11	<0.10	7.2	1.10
MIN	6.5	572	0.83	<2.0	<0.010	<3.0	2	7.4	20.2	<0.10	<0.10	5.4	0.69

VWVRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

MAY

Date	Continuous		Daily			Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.5	626	1.32	<2.0	<0.010				22.1				
2	6.6	631	1.00	<2.0	<0.010				21.8				
3	6.6	624	0.96	<2.0	<0.010				22.1				
4	6.7	636	1.02	2.0	<0.010	<3.0	2.0	6.2	22.0				
5	6.8	654	0.99	<2.0	<0.010	<3.0	2.0		22.2		6.7	2.70	
6	6.7	635	1.01	<2.0	<0.010	3.0	2.0	7.7	22.4				
7	6.8	644	0.81	<2.0	<0.010	3.0	2.0		22.5				
8	6.6	614	0.69	<2.0	<0.010				22.7				
9	6.7	747	0.70	<2.0	<0.010				22.8				
10	6.7	603	0.67	<2.0	<0.010				23.1				
11	6.7	617	0.58	<2.0	<0.010	<3.0	3.0	6.6	23.0				
12	6.8	611	0.71	<2.0	<0.010	<3.0	3.0		22.8		7.2	0.95	
13	6.7	682	0.66	<2.0	<0.010	<3.0	5.0	7.8	22.9				
14	6.7	644	0.59	<2.0	<0.010	3.0	3.0		23.2				
15	6.7	638	0.67	<2.0	<0.010				23.6				
16	6.7	619	0.68	<2.0	<0.010				23.8				
17	6.7	610	0.54	<2.0	<0.010				24.0				
18	6.7	608	0.55	<2.0	<0.010	3.0	2.0	7.5	23.9			2.00	
19	6.7	656	0.84	<2.0	<0.010	4.0	5.0		23.8		8.1		
20	6.6	597	1.02	<2.0	<0.010	3.0	2.0	6.5	23.8				
21	6.6	604	1.05	<2.0	<0.010	3.0	2.0		23.8				
22	6.8	607	1.05	<2.0	<0.010				23.9				
23	6.8	621	0.99	<2.0	<0.010				23.8				
24	6.7	648	0.99	<2.0	<0.010				23.8				
25	6.8	622	0.99	<2.0	<0.010	4.0	2.0	5.0	24.0				
26	6.9	614	0.90	<2.0	<0.010	4.0	2.0		24.2		7.4	1.40	
27	6.8	662	1.18	<2.0	<0.010	3.0	2.0	7.2	24.2				
28	6.7	632	1.51	<2.0	<0.010	3.0	3.0		24.3				
29	6.7	645	1.44	<2.0	<0.010				24.1				
30	6.8	667	1.04	<2.0	<0.010				24.3				
31	7.3	643	1.50	<2.0	<0.010				24.4				
AVG	6.7	634	0.92	<2.0	<0.010	<3.2	2.6	6.8	23.3	1.02	<0.10	7.4	1.76
MAX	7.3	747	1.51	2.0	<0.010	4.0	5.0	7.8	24.4	1.70	<0.10	8.1	2.70
MIN	6.5	597	0.54	<2.0	<0.010	<3.0	2	5.0	21.8	0.55	<0.10	6.7	0.95

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

JUNE

Date	Continuous			Daily		Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.9	633	1.60	<2.0	<0.010	4.0	3.0	7.1	24.3	0.82	<0.10	7.4	1.50
2	6.9	634	1.52	<2.0	<0.010	4.0	3.0	7.1	24.1				
3	6.8	648	1.60	<2.0	<0.010	4.0	4.0	6.8	24.0				
4	6.8	680	1.11	<2.0	<0.010	3.0	3.0	6.8	23.8				
5	6.7	647	1.05	2.0	<0.010	3.0	3.0	6.8	23.7				
6	6.9	645	0.96	<2.0	<0.010		1.0	7.5	23.7				
7	6.8	635	0.78	<2.0	<0.010		3.0	7.5	24.1				
8	6.8	640	1.01	<2.0	<0.010	3.0	3.0	7.5	24.1				
9	6.8	647	0.73	<2.0	<0.010	3.0	3.0	7.5	24.0				
10	6.8	644	0.70	<2.0	<0.010	3.0	2.0	7.3	23.8				
11	6.8	666	1.02	<2.0	<0.010	3.0	2.0	7.3	24.0	0.11	<0.10	6.7	0.27
12	6.8	646	0.89	<2.0	<0.010		3.0	7.3	23.9				
13	6.8	677	0.81	<2.0	<0.010		3.0	7.3	24.0				
14	6.9	633	0.50	<2.0	<0.010		3.0	7.3	24.1				
15	6.8	645	0.63	30.0	<0.010	3.0	2.0	7.0	24.1				
16	6.8	642	0.62	<2.0	<0.010	3.0	2.0	7.0	24.2				
17	6.7	641	0.67	<2.0	<0.010	3.0	2.0	6.9	24.3	1.10	<0.10	5.8	0.98
18	6.8	645	0.62	<2.0	<0.010	<3.0	2.0	6.9	24.6				
19	6.8	647	0.51	<2.0	<0.010		3.0	6.9	24.5				
20	6.9	677	0.50	<2.0	<0.010		3.0	6.9	24.3				
21	7.0	665	0.52	<2.0	<0.010		3.0	6.9	24.4				
22	6.8	654	0.51	<2.0	<0.010	<5.0	2.0	7.5	24.4				
23	6.9	670	0.51	<2.0	<0.010	3.0	2.0	7.5	24.5	0.91	<0.10	6.1	2.00
24	6.7	655	0.51	<2.0	<0.010	3.0	2.0	7.5	24.6				
25	6.8	657	0.51	<2.0	<0.010	3.0	2.0	7.3	24.6				
26	7.0	672	0.51	<2.0	<0.010		2.0	7.3	24.6				
27	6.8	663	0.60	<2.0	<0.010		2.0	7.2	24.6				
28	6.7	633	0.60	<2.0	<0.010	<3.0	<1.0	7.2	25.3				
29	6.7	640	0.60	<2.0	<0.010	<3.0	<1.0	7.2	25.3				
30	6.8	635	0.61	<2.0	<0.010	<3.0	<1.0	7.2	25.3	0.12	<0.10	6.3	0.50
AVG	6.8	651	0.79	<2.2	<0.010	<3.3	<2.3	7.2	24.3	0.61	<0.10	6.5	1.05
MAX	7.0	680	1.60	30.0	<0.010	<5.0	4.0	7.5	25.3	1.10	<0.10	7.4	2.00
MIN	6.7	633	0.50	<2.0	<0.010	<3.0	<1.0	6.8	23.7	0.11	<0.10	5.8	0.27

VWVRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

JULY

Date	Continuous		Daily			Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.8	675	0.50	<2.0	<0.010	<3.0	<1.0		25.4				
2	6.8	653	0.50	<2.0	<0.010	<3.0	1.0	7.1	25.3				
3	6.8	650	0.50	<2.0	<0.010				25.7				
4	6.9	662	0.50	<2.0	<0.010		1.0		25.6				
5	6.9	631	0.50	<2.0	<0.010	<3.0	1.0		25.6				
6	6.8	640	0.50	<2.0	<0.010	3.0	1.0		25.5				
7	6.7	649	0.50	2.0	<0.010	<3.0	1.0		25.5				
8	6.8	639	0.50	<2.0	<0.010	<3.0	2.0	7.0	25.4			0.12	0.34
9	6.7	647	0.50	<2.0	<0.010				25.7				
10	6.7	641	0.50	<2.0	<0.010				25.9				
11	6.8	638	0.50	<2.0	<0.010		2.0		26.0				
12	6.6	614	0.50	<2.0	<0.010	<3.0	2.0	7.2	25.9				
13	6.7	618	0.50	<2.0	<0.010	<3.0	3.0		25.9				
14	6.7	638	0.50	<2.0	<0.010	<3.0	3.0		25.9				
15	6.7	648	0.50	<2.0	<0.010	<3.0	3.0	7.0	26.1				0.26
16	6.7	653	0.65	<2.0	<0.010	3.0			26.4				
17	6.7	629	0.57	<2.0	<0.010				26.4				
18	6.7	635	0.65	<2.0	<0.010				26.7				
19	6.6	628	0.51	<2.0	<0.010				26.5				
20	6.6	613	0.49	<2.0	<0.010	<3.0	1.0	6.6	26.5				0.61
21	6.7	626	0.58	<2.0	<0.010	<3.0	1.0		26.7				
22	6.8	648	0.48	<2.0	<0.010	<3.0	1.0		26.7				
23	6.7	645	0.54	<2.0	<0.010	<3.0	1.0	6.8	26.6				
24	6.6	621	0.67	<2.0	<0.010				26.7				
25	6.7	644	0.50	<2.0	<0.010				26.9				
26	6.8	629	0.51	<2.0	<0.010	<3.0	1.0		27.0				
27	6.7	624	0.51	2.0	<0.010	<3.0	1.0		26.8				
28	6.8	639	0.52	2.0	<0.010	<3.0	2.0	6.6	26.7				
29	6.7	621	0.51	<2.0	<0.010	<3.0	1.0		26.6				
30	6.7	618	0.55	<2.0	<0.010	<3.0	1.0		26.7				
31	6.7	622	0.51	<2.0	<0.010				26.8				
AVG	6.7	637	0.52	<2.0	<0.010	<3.0	<1.5	6.9	26.1			0.12	0.40
MAX	6.9	675	0.67	2.0	<0.010	3.0	3.0	7.2	27.0			0.15	0.61
MIN	6.6	613	0.48	<2.0	<0.010	<3.0	<1	6.6	25.3			0.10	0.26

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

AUGUST

Date	Continuous			Daily			Four/Weekly			Weekly			Twice/Monthly		
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L		
1	6.7	609	0.52	<2.0	<0.010	<3.0	<1.0	26.7	<0.10	<0.10					
2	6.7	611	0.51	<2.0	<0.010	<3.0	1.0	26.7	<0.10	<0.10					
3	6.7	611	0.52	<2.0	<0.010	<3.0	1.0	26.7	<0.10	<0.10	6.3	0.12			
4	6.8	614	0.52	<2.0	<0.010	<3.0	<1.0	26.7	<0.10	<0.10					
5	6.7	633	0.52	<2.0	<0.010	3.0	<1.0	26.2	<0.10	<0.10					
6	6.7	636	0.51	<2.0	<0.010			26.2							
7	6.7	637	0.52	<2.0	<0.010			26.2							
8	6.8	638	0.52	<2.0	<0.010			26.5							
9	6.6	610	0.51	<2.0	<0.010			26.7							
10	6.7	617	0.51	<2.0	<0.010	<3.0	<1.0	26.7	0.16	<0.10	7.7	<0.10			
11	6.7	614	0.50	<2.0	<0.010	<3.0	1.0	26.8							
12	6.7	634	0.52	<2.0	<0.010	<3.0	1.0	26.5							
13	6.8	680	0.50	<2.0	<0.010	<3.0	1.0	26.4							
14	6.7	696	0.52	<2.0	<0.010	<3.0	1.0	26.3							
15	6.7	672	0.53	<2.0	<0.010			26.3							
16	6.6	683	0.53	<2.0	<0.010		1.1	26.4							
17	6.6	646	0.54	<2.0	<0.010	<3.0	1.0	26.3	0.12	<0.10	7.7	1.10			
18	6.6	646	0.54	<2.0	<0.010	<3.0	1.0	26.5							
19	6.5	642	0.55	<2.0	<0.010	<3.0	1.0	26.6							
20	6.7	668	0.56	<2.0	<0.010	<3.0	1.0	26.7							
21	6.7	691	0.86	<2.0	<0.010			26.7							
22	6.8	668	1.03	<2.0	<0.010			26.6							
23	6.6	665	1.00	<2.0	<0.010			26.7							
24	6.7	671	1.02	<2.0	<0.010			26.6							
25	6.6	664	1.15	2.0	<0.010	3.0	1.0	26.6	<0.10	<0.10	8.5	<0.20			
26	6.6	671	1.05	<2.0	<0.010	4.0	1.0	26.4							
27	6.7	656	1.01	<2.0	<0.010	<3.0	2.0	26.4							
28	6.7	668	1.01	<2.0	<0.010	3.0	2.0	26.6							
29	6.6	654	1.04	<2.0	<0.010			26.7							
30	6.6	648	1.01	<2.0	<0.010			26.6							
31	6.6	643	0.80	<2.0	<0.010			26.7							
AVG	6.7	648	0.69	<2.2	<0.010	<3.1	<1.1	26.6	<0.12	<0.10	7.6	<0.38			
MAX	6.8	696	1.15	23.0	<0.010	4.0	2.0	26.8	0.16	<0.10	8.5	1.10			
MIN	6.5	609	0.50	<2.0	<0.010	<3.0	<1	26.2	<0.10	<0.10	6.3	<0.10			

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

SEPTEMBER

Date	Continuous			Daily			Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity µmhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L	
1	6.6	680	0.47	<2.0	<0.010	<3.0	1.0	6.8	26.8	<0.10	<0.10	8.6	0.61	
2	6.6	672	0.51	<2.0	<0.010	<3.0	1.0	6.7	26.9	<0.10	<0.10			
3	6.5	650	0.51	<2.0	<0.010	<3.0	1.0	6.7	26.9	<0.10	<0.10			
4	6.6	652	0.60	<2.0	<0.010	<3.0		6.7	26.8	<0.10	<0.10			
5	6.8	652	0.50	<2.0	<0.010	<3.0	1.0	6.7	26.7	<0.10	<0.10			
6	6.6	655	0.56	<2.0	<0.010	<3.0	2.0	6.7	26.6	<0.10	<0.10			
7	6.6	645	0.53	<2.0	<0.010	<3.0	1.7	6.6	26.6	<0.10	<0.10	7.2	0.61	
8	6.6	672	0.51	<2.0	<0.010	<3.0	1.7	6.6	26.6	<0.10	<0.10			
9	6.6	653	0.52	<2.0	<0.010	<3.0	1.7	6.6	26.5	<0.10	<0.10			
10	6.6	668	0.51	<2.0	<0.010	<3.0	1.9	6.6	26.7	<0.10	<0.10			
11	6.6	670	0.52	<2.0	<0.010	<3.0		6.6	26.9	<0.10	<0.10			
12	6.6	641	0.50	<2.0	<0.010	<3.0	2.0	6.7	26.8	<0.10	<0.10			
13	6.6	644	0.51	<2.0	<0.010	<3.0	1.2	6.7	26.4	<0.10	<0.10			
14	6.6	643	0.50	<2.0	<0.010	<3.0	1.0	6.7	26.3	<0.10	<0.10			
15	6.6	651	0.50	<2.0	<0.010	<3.0	1.0	6.5	26.4	<0.10	<0.10	9.5	<0.10	
16	6.6	658	0.79	<2.0	<0.010	<3.0	1.2	6.5	26.4	<0.10	<0.10			
17	6.5	656	0.56	<2.0	<0.010	<3.0	1.3	6.5	26.5	<0.10	<0.10			
18	6.5	668	0.60	<2.0	<0.010	<3.0		6.5	26.7	<0.10	<0.10			
19	6.6	657	0.51	<2.0	<0.010	<3.0		6.5	26.7	<0.10	<0.10			
20	6.7	646	0.51	<2.0	<0.010	<3.0	1.4	7.1	26.7	<0.10	<0.10			
21	6.6	632	0.73	2.0	<0.010	<3.0	1.2	7.1	26.4	<0.10	<0.10			
22	6.6	634	1.07	<2.0	<0.010	<3.0	1.6	6.7	26.2	<0.10	<0.10	8.5	0.26	
23	6.6	660	0.93	<2.0	<0.010	<3.0	1.7	6.7	26.2	<0.10	<0.10			
24	6.7	654	1.01	<2.0	<0.010	<3.0	1.7	6.7	26.2	<0.10	<0.10			
25	6.6	665	1.00	<2.0	<0.010	<3.0		6.3	26.3	<0.10	<0.10			
26	6.6	637	0.65	<2.0	<0.010	<3.0	1.0	6.3	26.4	<0.10	<0.10			
27	6.6	620	0.75	<2.0	<0.010	<3.0	1.1	6.3	26.6	<0.10	<0.10			
28	6.6	616	0.54	2.0	<0.010	<3.0	1.3	6.3	26.3	<0.10	<0.10	6.4	0.42	
29	6.7	642	0.77	<2.0	<0.010	<3.0	1.3	6.3	25.7	<0.10	<0.10			
30	6.7	662	0.58	<2.0	<0.010	<3.0	1.0	6.3	25.4	<0.10	<0.10			
AVG	6.6	652	0.62	<2.0	<0.010	<3.0	1.4	6.7	26.5	<0.12	<0.10	8.0	<0.40	
MAX	6.8	680	1.07	2.0	<0.010	<3.0	2.0	7.1	26.9	0.16	<0.10	9.5	0.61	
MIN	6.5	616	0.47	<2.0	<0.010	<3.0	1	6.3	25.4	<0.10	<0.10	6.4	<0.10	

Facility Effluent Monitoring - River Discharge
Daily - Monthly

OCTOBER

2009

Date	Continuous			Daily		Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature $^{\circ}$ C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.6	690	0.75	2.0	<0.010	<3.0	0.9	7.0	25.3				
2	6.7	668	0.78	<2.0	<0.010				25.4				
3	7.0	653	0.77	<2.0	<0.010				25.1				
4	6.8	656	0.74	<2.0	<0.010		1.1		24.8				
5	6.6	643	0.71	<2.0	<0.010	<3.0	0.8		24.8				
6	6.7	653	0.69	<2.0	<0.010	<3.0	1.0		24.7	<0.10	7.1		<0.10
7	6.7	652	0.66	<2.0	<0.010	<3.0	<1.0		24.6				
8	6.6	658	0.69	<2.0	<0.010	<3.0	1.0	7.0	24.7				
9	6.6	670	0.62	<2.0	<0.010				24.8				
10	6.7	664	0.67	<2.0	<0.010				24.8				
11	6.7	648	0.60	<2.0	<0.010		1.8		24.8				
12	6.6	629	0.64	<2.0	<0.010	<3.0	0.9		24.6				
13	6.7	619	0.66	<2.0	<0.010	<3.0	2.0		24.2	<0.10	3.8		0.75
14	6.7	619	0.63	<2.0	<0.010	<3.0	3.3		24.7				
15	6.6	628	0.64	<2.0	<0.010	<3.0	1.0	7.0	24.8				
16	6.6	624	0.59	<2.0	<0.010	<3.0			24.7				
17	6.7	631	0.70	<2.0	<0.010				24.7				
18	6.7	647	0.63	<2.0	<0.010		1.0		24.7				
19	6.5	649	0.65	<2.0	<0.010	<3.0	1.2		24.3				
20	6.5	662	0.66	<2.0	<0.010	<3.0	1.0		24.1	<0.10	5.1		0.76
21	6.6	665	0.74	<2.0	<0.010	<3.0	1.0		24.0				
22	6.5	7	0.71	<2.0	<0.010	<3.0	0.6		24.1				
23	6.6	681	0.69	<2.0	<0.010				24.2				
24	6.7	684	0.64	<2.0	<0.010				24.2				
25	6.6	665	0.65	<2.0	<0.010		0.8		24.1				
26	6.5	667	0.60	<2.0	<0.010		0.8		24.0				
27	6.6	677	0.68	<2.0	<0.010	<3.0	0.6		23.2	<0.10	6.4		0.35
28	6.5	678	0.62	<2.0	<0.010	<3.0	1.2		23.0				
29	6.6	659	0.65	<2.0	<0.010	<3.0	<1.0	7.7	22.8				
30	6.6	670	0.62	<2.0	<0.010				23.1				
31	6.7	661	0.61	<2.0	<0.010				23.2				
AVG	6.6	635	0.67	<2.0	<0.010	<3.0	<1.1	7.0	24.3	<0.10	5.6		<0.49
MAX	7.0	690	0.78	2.0	<0.010	<3.0	3.3	7.7	25.4	<0.10	7.1		0.76
MIN	6.5	7	0.59	<2.0	<0.010	<3.0	1	6.5	22.8	<0.10	3.8		<0.10

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

NOVEMBER

Date	Continuous			Daily		Four/Weekly		Weekly		Twice/Monthly			
	pH units	Conductivity μ mhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MG/L	TKN as N mg/L
1	6.7	671	0.54	<2.0	<0.010	1.0	1.0	23.3	<0.10	<0.10	6.0	0.12	
2	6.6	647	0.52	<2.0	<0.010	<3.0	0.5	23.3	<0.10	<0.10	6.0	0.12	
3	6.6	662	0.55	<2.0	<0.010	<3.0	0.9	23.4	<0.10	<0.10	6.0	0.12	
4	6.6	667	0.51	2.0	<0.010	<3.0	<1.0	23.3	<0.10	<0.10	6.0	0.12	
5	6.6	670	0.50	<2.0	<0.010	<3.0	0.5	23.2	<0.10	<0.10	6.0	0.12	
6	7.0	668	0.55	<2.0	<0.010	<3.0	0.5	23.1	<0.10	<0.10	6.0	0.12	
7	7.0	671	0.54	<2.0	<0.010	<3.0	0.8	22.9	<0.10	<0.10	6.0	0.12	
8	7.0	676	0.50	<2.0	<0.010	<3.0	1.0	22.9	<0.10	<0.10	6.0	0.12	
9	7.0	744	0.53	<2.0	<0.010	<3.0	1.5	22.9	<0.10	<0.10	6.0	0.12	
10	7.1	682	0.50	<2.0	<0.010	<3.0	0.9	23.1	<0.10	<0.10	6.0	0.12	
11	7.0	690	0.51	<2.0	<0.010	<3.0	0.9	22.9	<0.10	<0.10	6.0	0.12	
12	7.0	687	0.54	<2.0	<0.010	<3.0	1.6	22.8	<0.10	<0.10	6.0	0.12	
13	6.9	683	0.59	<2.0	<0.010	<3.0	1.6	22.5	<0.10	<0.10	6.0	0.12	
14	7.0	668	0.72	<2.0	<0.010	<3.0	1.5	22.3	<0.10	<0.10	6.0	0.12	
15	7.0	657	0.80	<2.0	<0.010	<3.0	1.4	22.2	<0.10	<0.10	6.0	0.12	
16	7.0	669	0.85	<2.0	<0.010	<3.0	1.8	22.0	<0.10	<0.10	6.0	0.12	
17	7.0	678	1.03	<2.0	<0.010	<3.0	0.8	22.0	<0.10	<0.10	6.0	0.12	
18	7.1	682	0.96	<2.0	<0.010	<3.0	1.6	21.9	<0.10	<0.10	6.0	0.12	
19	7.1	676	0.78	<2.0	<0.010	<3.0	1.6	21.9	<0.10	<0.10	6.0	0.12	
20	7.1	680	0.67	<2.0	<0.010	<3.0	1.4	21.8	<0.10	<0.10	6.0	0.12	
21	7.1	678	0.71	<2.0	<0.010	<3.0	1.0	21.7	<0.10	<0.10	6.0	0.12	
22	7.0	671	0.61	<2.0	<0.010	<3.0	1.0	21.9	<0.10	<0.10	6.0	0.12	
23	7.0	672	0.59	<2.0	<0.010	<3.0	1.0	21.7	<0.10	<0.10	6.0	0.12	
24	7.1	675	0.64	<2.0	<0.010	<3.0	1.0	21.6	<0.10	<0.10	6.0	0.12	
25	7.1	680	0.83	<2.0	<0.010	<3.0	1.0	21.6	<0.10	<0.10	6.0	0.12	
26	7.0	671	0.86	<2.0	<0.010	<3.0	1.0	21.8	<0.10	<0.10	6.0	0.12	
27	7.1	663	1.00	<2.0	<0.010	<3.0	1.6	21.8	<0.10	<0.10	6.0	0.12	
28	7.0	630	1.07	<2.0	<0.010	<3.0	1.5	21.7	<0.10	<0.10	6.0	0.12	
29	7.0	598	1.12	<2.0	<0.010	<3.0	1.5	21.7	<0.10	<0.10	6.0	0.12	
30	7.0	595	1.03	<2.0	<0.010	<3.0	1.5	21.3	<0.10	<0.10	6.0	0.12	
AVG	7.0	669	0.71	<2.0	<0.010	<3.0	<1.2	7.4	<0.11	<0.10	5.9	0.40	
MAX	7.1	744	1.12	2.0	<0.010	<3.0	1.8	7.8	0.15	<0.10	6.3	0.82	
MIN	6.6	595	0.50	<2.0	<0.010	<3.0	1	7.1	<0.10	<0.10	5.2	0.12	

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

DECEMBER

Date	Continuous			Daily			Four/Weekly			Weekly			Twice/Monthly		
	pH units	Conductivity µmhos/cm	Turbidity NTU	Total Coliform MPN/100 mL	Chlorine Residual Daily Avg. mg/L	B.O.D. mg/L	Suspended Solids mg/L	Dissolved Oxygen mg/L	Temperature °C	Ammonia as N mg/L	Nitrite as N mg/L	Nitrate as N MGL	TKN as N mg/L		
1	6.9	611	1.08	<2.0	<0.010	<3.0	1.5		21.2	0.37	<0.10	4.6	1.50		
2	6.9	633	1.01	<2.0	<0.010	<3.0	1.1		21.1						
3	7.1	630	1.02	<2.0	<0.010	<3.0	5.6		20.8						
4	6.9	631	1.02	<2.0	<0.010				20.7						
5	6.9	632	1.03	<2.0	<0.010				20.6						
6	7.0	624	0.99	<2.0	<0.010				20.3						
7	7.0	601	1.02	<2.0	<0.010				19.8						
8	6.9	628	1.04	<2.0	<0.010				19.9						
9	7.0	615	1.11	<2.0	<0.010				19.8						
10	6.9	619	1.16	<2.0	<0.010				20.0						
11	6.9	629	1.37	<2.0	<0.010				20.2						
12	6.9	616	1.57	<2.0	<0.010				20.1						
13	7.0	610	1.52	<2.0	<0.010				20.1						
14	7.0	612	1.32	<2.0	<0.010				20.1						
15	6.9	632	1.29	<2.0	<0.010				20.0						
16	6.9	629	1.10	<2.0	<0.010				19.9						
17	6.9	636	1.02	<2.0	<0.010				19.8						
18	6.9	642	1.04	2.0	<0.010				19.9						
19	6.9	627	1.00	2.0	<0.010				19.9						
20	6.8	609	1.04	<2.0	<0.010				19.9						
21	7.0	619	1.04	<2.0	<0.010				19.7						
22	6.9	645	1.04	<2.0	<0.010				19.0						
23	7.1	629	1.11	<2.0	<0.010				19.2						
24	7.1	632	1.21	2.0	<0.010				19.2						
25	7.0	613	1.03	<2.0	<0.010				19.3						
26	7.0	618	1.20	<2.0	<0.010				19.2						
27	6.9	615	1.34	<2.0	<0.010				18.9						
28	7.0	631	1.37	<2.0	<0.010				19.2						
29	7.0	625	1.09	<2.0	<0.010				19.3						
30	7.0	640	1.11	<2.0	<0.010				19.2						
31	6.9	633	1.05	<2.0	<0.010				19.2						
AVG	7.0	625	1.14	<2.0	<0.010	<3.8	1.7	7.8	19.9	<0.21	<0.10	5.8	0.77		
MAX	7.1	645	1.57	2.0	<0.010	11.0	5.6	8.4	21.2	0.37	<0.10	7.2	1.50		
MIN	6.8	601	0.99	<2.0	<0.010	<3.0	1	7.1	18.9	<0.10	<0.10	4.6	0.32		

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

JANUARY 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromomethane µg/L	Dibromochloromethane µg/L
1												
2												
3												
4												
5	438	0.15	<10.00	100	63	6.0	<3.00	<0.1	<0.50	54	7.2	0.99
6												
7												
8												
9												
10												
11	348											
12												
13												
14												
15												
16												
17												
18												
19	412											
20												
21												
22												
23												
24												
25												
26	357											
27												
28												
29												
30												
31												
AVG	389	0.15	10.00	100	63	6.0	3.00	0.05	0.50	54	7.20	0.99
MAX	438	0.15	10.00	100	63	6.0	3.00	0.05	0.50	54	7.20	0.99
MIN	348	0.15	10.00	100	63	6.0	3.00	0.05	0.50	54	7.20	0.99

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

FEBRUARY 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2	363	0.13	<10.00	100	54	6.0	<3.30	<0.1	<0.50	73	1.2	8.00
3												
4												
5												
6												
7												
8												
9	399											
10												
11												
12												
13												
14												
15												
16	377											
17												
18												
19												
20												
21												
22												
23	382											
24												
25												
26												
27												
28												
AVG	380	0.13	10.00	100	54	6.0	3.30	0.05	0.50	73	1.20	8.00
MAX	399	0.13	10.00	100	54	6.0	3.30	0.05	0.50	73	1.20	8.00
MIN	363	0.13	10.00	100	54	6.0	3.30	0.05	0.50	73	1.20	8.00

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

MARCH 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromomethane µg/L	Dibromochloromethane µg/L
1												
2	340	0.14	<10.00	93	61	<5.0	<3.30	<0.1	<0.50	43	1.0	6.50
3												
4												
5												
6												
7												
8												
9	350											
10												
11												
12												
13												
14												
15												
16	446											
17												
18												
19												
20												
21												
22												
23	448											
24												
25												
26												
27												
28												
29												
30	361											
31												
AVG	389	0.14	10.00	93	61	5.0	3.30	0.05	0.50	43	1.00	6.50
MAX	448	0.14	10.00	93	61	5.0	3.30	0.05	0.50	43	1.00	6.50
MIN	340	0.14	10.00	93	61	5.0	3.30	0.05	0.50	43	1.00	6.50

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

APRIL 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3												
4												
5												
6	273	0.13	<10.00	88	49	5.0	<3.30	<0.1	<0.50	50	7.7	1.10
7												
8												
9												
10												
11												
12												
13	372											
14												
15												
16												
17												
18												
19												
20	330											
21												
22												
23												
24												
25												
26												
27	408											
28												
29												
30												
AVG	346	0.13	10.00	88	49	5.0	3.30	0.06	0.50	50	7.70	1.10
MAX	408	0.13	10.00	88	49	5.0	3.30	0.06	0.50	50	7.70	1.10
MIN	273	0.13	10.00	88	49	5.0	3.30	0.06	0.50	50	7.70	1.10

APRIL 2009
VO/RA
Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

MAY 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3												
4	441	0.10	<10.00	83	58	<5.0	<3.00	<0.1	<0.50	9	1.5	<0.50
5												
6												
7												
8												
9												
10												
11	390											
12												
13												
14												
15												
16												
17												
18	402											
19												
20												
21												
22												
23												
24												
25	539											
26												
27												
28												
29												
30												
31												
AVG	443	0.10	10.00	83	58	5.0	3.00	0.05	0.50	9	1.50	1.50
MAX	539	0.10	10.00	83	58	5.0	3.00	0.05	0.50	9	1.50	0.50
MIN	390	0.10	10.00	83	58	5.0	3.00	0.05	0.50	9	1.50	0.50

Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

JUNE 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1	352	0.11	<10.00	83	62	<5.0	<3.50	<0.1	<0.50	17	3.4	<0.50
2												
3												
4												
5												
6												
7												
8	397											
9												
10												
11												
12												
13												
14												
15	417											
16												
17												
18												
19												
20												
21												
22	418											
23												
24												
25												
26												
27												
28												
29	376											
30												
AVG	392	0.11	10.00	83	62	5.0	3.50	0.05	0.50	17	3.40	0.50
MAX	418	0.11	10.00	83	62	5.0	3.50	0.05	0.50	17	3.40	0.50
MIN	352	0.11	10.00	83	62	5.0	3.50	0.05	0.50	17	3.40	0.50

11/15/09

Doc. # 10000

Facility Effluent Monitoring - River Discharge

Monthly

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

JULY 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromomethane µg/L	Dibromochloromethane µg/L
1												
2												
3												
4												
5												
6	400	0.16										
7				89	53	5.0	<3.00	<0.1	<0.50	41	11.0	1.70
8												
9												
10												
11												
12												
13	433											
14												
15												
16												
17												
18												
19												
20	404											
21												
22												
23												
24												
25												
26												
27	410								<0.50		9.8	1.70
28												
29												
30												
31												
AVG	412	0.16	10.00	89	53	5.0	3.00	0.05	0.50	41	10.40	1.70
MAX	433	0.16	10.00	89	53	5.0	3.00	0.05	0.50	41	11.00	1.70
MIN	400	0.16	10.00	89	53	5.0	3.00	0.05	0.50	41	9.80	1.70

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009



Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

AUGUST 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3	398	0.09	<10.00	90	54	6.0	<3.00	<0.1	<0.50	56	10.0	1.60
4												
5												
6												
7												
8												
9												
10	392											
11												
12												
13												
14												
15												
16												
17	399											
18												
19												
20												
21												
22												
23												
24	384											
25												
26												
27												
28												
29												
30												
31	374											
AVG	389	0.09	10.00	90	54	6.0	3.00	0.05	0.50	56	10.00	1.60
MAX	399	0.09	10.00	90	54	6.0	3.00	0.05	0.50	56	10.00	1.60
MIN	374	0.09	10.00	90	54	6.0	3.00	0.05	0.50	56	10.00	1.60

Environmental Protection Agency
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 Washington, DC 20460
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 www.epa.gov

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

SEPTEMBER 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3												
4												
5												
6												
7	444	0.08	<10.00	95	50	6.0	<3.00	<0.1	<0.50	62	13.0	1.70
8												
9												
10												
11												
12												
13												
14	462											
15												
16												
17												
18												
19												
20												
21	442											
22												
23												
24												
25												
26												
27	406											
28												
29												
30												
AVG	439	0.08	10.00	95	50	6.0	3.00	0.05	0.50	62	13.00	1.70
MAX	462	0.08	10.00	95	50	6.0	3.00	0.05	0.50	62	13.00	1.70
MIN	406	0.08	10.00	95	50	6.0	3.00	0.05	0.50	62	13.00	1.70



Facility Effluent Monitoring - River Discharge
Daily - Monthly
2009

OCTOBER 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3												
4												
5	431											
6												
7												
8												
9												
10												
11												
12	484	0.13										
13			<10.00	90	49	<5.0	<3.00	<0.1	<0.50	59	7.4	1.20
14												
15												
16												
17												
18												
19	399											
20												
21												
22												
23												
24												
25	440											
26												
27												
28												
29												
30												
31												
AVG	439	0.13	10.00	90	49	5.0	3.00	0.05	0.50	59	7.40	1.20
MAX	484	0.13	10.00	90	49	5.0	3.00	0.05	0.50	59	7.40	1.20
MIN	399	0.13	10.00	90	49	5.0	3.00	0.05	0.50	59	7.40	1.20

VWRA
 Facility Effluent Monitoring - River Discharge
 Daily - Monthly
 2009

NOVEMBER 2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromomethane µg/L	Dibromochloromethane µg/L
1												
2	380	0.12	<10.00	95	54	<5.0	<3.00	<0.1	<0.50	43	8.8	1.40
3												
4												
5												
6												
7												
8												
9	332											
10												
11												
12												
13												
14												
15												
16	374											
17												
18												
19												
20												
21												
22												
23	423											
24												
25												
26												
27												
28												
29												
30	402											
AVG	382	0.12	10.00	95	54	5.0	3.00	0.05	0.50	43	8.80	1.40
MAX	423	0.12	10.00	95	54	5.0	3.00	0.05	0.50	43	8.80	1.40
MIN	332	0.12	10.00	95	54	5.0	3.00	0.05	0.50	43	8.80	1.40



Facility Effluent Monitoring - River Discharge
Daily - Monthly

DECEMBER 2009

2009

Date	Total Dissolved Solids mg/L	MBAS mg/L	Copper µg/L	Sodium mg/L	Zinc µg/L	Cyanide µg/L	Bis (2-ethylhexyl) phthalate µg/L	Dibenzo(a,h) anthracene µg/L	Bromoform µg/L	Chloroform µg/L	Dichlorobromo-methane µg/L	Dibromochloro-methane µg/L
1												
2												
3												
4												
5												
6												
7	392											
8		0.10										
9			<10.00	87	55	<5.0	<3.00	<0.1	<0.50	50	12.0	2.60
10												
11												
12												
13												
14	380											
15												
16												
17												
18												
19												
20												
21	377											
22												
23												
24												
25												
26												
27												
28	388											
29												
30												
31												
AVG	384	0.10	10.00	87	55	5.0	3.00	0.05	0.50	50	12.00	2.60
MAX	392	0.10	10.00	87	55	5.0	3.00	0.05	0.50	50	12.00	2.60
MIN	377	0.10	10.00	87	55	5.0	3.00	0.05	0.50	50	12.00	2.60

VWVRA
Facility Effluent Monitoring - River Discharge
Annual
2009

July

Sample Date: 7/7/2009

<u>Parameter</u>	<u>Units</u>	<u>Result</u>	<u>EPA Method</u>
<u>Purgeable Organics</u>			
Volatile Organic Compounds	(µg/L)	ND	EPA 624
All results Non-Detectable with the exception of:			
Chloroform	(µg/L)	41	
Dibromochloromethane	(µg/L)	1.8	
Dichlorobromomethane	(µg/L)	11	
1,1,1-Trichloroethane	(µg/L)	53	
<u>Base Neutral Extractable Organics</u>			
Semivolatile Organic Compds	(µg/L)	ND	EPA 625
All results were Non-Detectable			
<u>Acid Extractable Organics</u>			
Phenol Group	(µg/L)	ND	EPA 625
<u>Heavy Metals</u>			
Metals and Metalloids	(µg/L)	ND	EPA 200.8
All results Non-Detectable with the exception of:			
Boron	(µg/L)	220	
Vanadium	(µg/L)	16	
Zinc	(µg/L)	53	
<u>Methyl t-Butyl Ether</u>			
2,3,7,8-TCDD (Dioxin Scan)	(µg/L)	ND	EPA 624
	(µg/L)	ND	EPA 625
<u>Asbestos Fibers</u>			
	(MFL)	ND	EPA 600 R 94
<u>Fecal Coliform</u>			
	(MPN/100 mL)	ND	SM 9221-E

*Resampling for 1,1,1-Trichloroethane was performed 07/28/09. 1,1,1-Trichloroethane was not detected in the resample.

VVWRA
Facility Effluent Monitoring - River Discharge
Quarterly
2009

Sample Month/Day	Boron (mg/L)	Total Hardness (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Oil and Grease (mg/L)
January 1/6/2009	0.27	50	74	0.40	50	<5.00
April 4/7/2009	0.21	77	75	0.50	48	<2.80
July 7/7/2009	0.22	79	74	0.40	48	<2.50
October 10/13/2009	0.24	73	8	1.00	4	<2.50



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est.1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 5 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
Received Date/Time 07/07/09 14:33

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Chloride, Sulfate, Nitrate as N, Fluoride), Aggregate Organic Compounds (Oil & Grease (HEM)), General Inorganics (Cyanide), Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen, Ortho Phosphate Phosphorus), and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron).

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 6 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Work Order Number: A9G0625

Report Date: 20-Jul-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
Received Date/Time 07/07/09 14:33

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Metals and Metalloids (Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc) and Volatile Organic Compounds by EPA 624 (Total Trihalomethanes, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Chloroethylvinyl Ether).

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E.S.BABCOCK&Sons,Inc.
Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 7 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
#6212 Final Effluent To Mojave River Grab	Liquid	07/07/09 07:18	07/07/09 14:33

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 624							
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	07/10/09 14:46	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	07/10/09 14:46	jes	
Benzene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Bromodichloromethane	11	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Bromoform	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Chloroform	41	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Chloromethane	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Dibromochloromethane	1.7	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Ethylbenzene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	07/10/09 14:46	jes	
Methylene Chloride	ND	3.0	ug/L	EPA 624	07/10/09 14:46	jes	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Toluene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Trichloroethene	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	07/10/09 14:46	jes	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	07/10/09 14:46	jes	
Surrogate: 1,2-Dichloroethane-d4	99.2	% 78.5-125		EPA 624	07/10/09 14:46	jes	
Surrogate: Bromofluorobenzene	97.6	% 80-120		EPA 624	07/10/09 14:46	jes	
Surrogate: Toluene-d8	97.7	% 80-120		EPA 624	07/10/09 14:46	jes	

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E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est. 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 8 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
Received Date/Time 07/07/09 14:33

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 9 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

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Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
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Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est.1906

Client Name: Victor Valley Reclamation Authority
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Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 10 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
Received Date/Time 07/07/09 14:33

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various surrogate compounds like 2,4,6-Tribromophenol.

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est.1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 11 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9G0625-04

Sample Description #6212 Final Effluent To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/07/09 07:18
Received Date/Time 07/07/09 14:33

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Haloacetic Acid by Standard Methods 6251B and Semivolatile Organic Compounds by EPA 8270C SIM.

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 22 of 22
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 20-Jul-2009

Work Order Number: A9G0625

Received on Ice (Y/N): Yes Temp: 8 °C

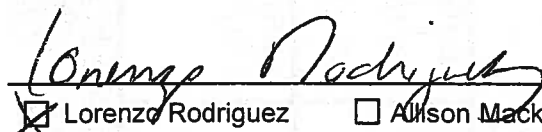
Notes and Definitions

- N_RLm Due to sample matrix, the reporting limit has been raised.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



SUBCONTRACT LABORATORY CHAIN OF CUSTODY & ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 2011 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gc@vwater.com

* TARGET ANALYTES TO BE REPORT FROM 624 ANALYSES INSTEAD OF 524. AS PER CRINA C. 12-07/09/09

Project Name	Annual VVWRA Permit Samples	Sample Type	Sample Date	Sample Time	Sample Location/Description	Lab Analyzes Requested	Asbestos	Total # of Containers	Preservation Methods	Sample	
Project Contact	Gina Cloninger (760) 246-8638 ext. 116										
Sampler Name	MIKE TARANGO										
Sampler Signature	<i>Mike Tarango</i>										
VVWRA ID #		Grab	7/17/09	0705	Final Effluent to Mojave River Composite	EPA 824 with MIB + THM EPA 825 (BNA) with Dioxin EPA 8270C (by Min. Level) Metals & Total Hardness Chloride, Fluoride, Ortho-Phosphate, Sol. Silica Oil and Grease Halocyclic Acids		1	Refrigeration	WW	
6208		Composite	7/16/09	0708	Secondary Effluent to Preservation Pond Composite			1		HCl	WW
6209		Composite	7/16/09	0714	Raw Plant Influent Composite			1		Na-510 HNO3 PH H2SO4 PH	WW
6211		Grab	7/22/09	0718	Final Effluent to Mojave River Grab			20	6	1 2 1 1 4	WW
6212		Grab	7/17/09	0718	Final Effluent to Mojave River Grab			1	1	1	WW
6213		Grab	7/17/09	0724	Final Effluent to Mojave River Grab			1	1	1	WW
6214		Grab	7/17/09	0727	Secondary Effluent to Preservation Pond Grab			2	1	1	WW
6215		Grab	7/17/09	0730	Primary Effluent Grab			1	1	1	WW
6215		Grab	7/17/09	0730	Raw Plant Influent Grab			15	5	2 1 2 1 4	WW
Relinquished By (Sign):	<i>Mike Tarango</i>	Received By (Sign):	<i>[Signature]</i>	7/17/09	Date/Time:	7/17/09	Received By (Sign):	<i>[Signature]</i>	Print: J. Mendoz	Company: VVWRA	
Relinquished By (Sign):	<i>Mike Tarango</i>	Received By (Sign):	<i>[Signature]</i>	0735	Date/Time:	12:30	Received By (Sign):	<i>[Signature]</i>	Print: J. Mendoz	Company: VVWRA	
Relinquished By (Sign):	<i>[Signature]</i>	Received By (Sign):	<i>[Signature]</i>	7/17/09	Date/Time:	7/17/09	Received By (Sign):	<i>[Signature]</i>	Print: J. Mendoz	Company: VVWRA	
Relinquished By (Sign):	<i>[Signature]</i>	Received By (Sign):	<i>[Signature]</i>	7/17/09	Date/Time:	7/17/09	Received By (Sign):	<i>[Signature]</i>	Print: J. Mendoz	Company: VVWRA	

Sample Condition Upon Receipt by Laboratory:
 Samples Received on Ice? Yes No
 Samples Received Intact? Yes No
 Temperature _____ °C

Laboratory Notes
 *Metals to include Sb, As, Ba, Be, B, Ca, Cd, Cr(I), Cr(hexavalent), Cr(III), Co, Cu, Fe, K, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Na, Ti, V, Zn, and Total Hardness (as CaCO3)

Samples sent via courier to:
E.S. Babcock Laboratories
 Lab # **APC 625 AB**



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 1 of 1
Project Name: VVWRA-Lab
Project Number: [none]
Work Order Number: A9G0632

Report Date: 29-Jul-2009

Received on Ice Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Table with 7 columns: Lab Sample #, Client Sample ID, Matrix, Date Sampled, By, Date Submitted, By. Row 1: A9G0632-01, #6212 Final Effluent To Mojave River Grab, Liquid, 07/07/09 07:18, Mike Tarango, 07/07/09 14:33, Courier (Linda A.)

Approval

Babcock Laboratories certify that the information presented as part of this report meets the minimum quality standards in the analytical methods, if referenced. Exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Handwritten signature of Lawrence J. Chrystal

- Project Manager
Allison Mackenzie General Manager
Lawrence J. Chrystal Laboratory Director

cc:

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
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www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102

DATE: July 20, 2009
CUSTOMER: EDWARD S. BABCOCK & SONS, INC.
P.O. BOX 432
RIVERSIDE, CA 92502-0432
ATTENTION: Lorenzo Z Rodriguez
REFERENCE: A9G0632
REPORT NO: 130887
SUBJECT: ANALYSIS OF WATER SAMPLE FOR ASBESTOS BY TEM
ACCREDITED: California Department of Health Services (ELAP-1119)

The water was UV-ozone treated to remove any microbial contamination as prescribed by the method since the sample arrived after the 48-hour holding time.

The date and time of collection, receipt, ozonation, filtration, and analysis are as follows:

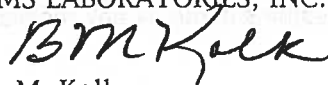
SAMPLE NO: A9G0632-01
COLLECTED: 7/7/09 at 0718 by Mike Tarango
RECEIVED: 7/10/09 at 1246
OZONATED: 7/11/09 at 1240-1540
FILTERED: 7/11/09 at 1556
ANALYZED: 7/17/09

The samples were analyzed for fibers $>10 \mu\text{m}$ in length to conform with the drinking water document, EPA 600 94 134, 100.2. This regulation calls for an MCL (maximum contaminant level) of 7 MFL and an analytical sensitivity level of 0.2 MFL.

The analytical sensitivity of 0.2 MFL was reached.

The results of the analysis and the detection limit are summarized on the following pages.

Respectfully submitted,
EMS LABORATORIES, INC.


B. M. Kolk
Laboratory Director

BMK/ah

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

This report shall not be reproduced, except in full, without the written approval of EMS Laboratories, Inc. Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER BY TEM (EPA-600 R 94 134) EPA 100.2

LAB NO: 130887
 CLIENT: E.S. Babcock & Sons, Inc.
 7/17/2009

Laboratory I.D.	Client I.D.	FILTER MEDIA DATA			No. of G.O.	Analyzed Area, mm ²	Sample Volume (ml)
		Type	Diameter mm	Effective Area mm ²			
130887-1	A9G0632-01*	PC	47	1017	10	0.094	60

* FOR FIBERS > 10um ONLY

ANALYTICAL RESULTS

Laboratory I.D.	Client I.D.	No. of Asbestos Str.			Detection Limit (MFL)	CONCENTRATION (MFL)		
		All Sizes	5-9.9um	>10um		All Sizes	5-9.9um	>10um
130887-1	A9G0632-01*	-	-	N.D.	0.2	-	-	< 0.2

* FOR FIBERS > 10um ONLY

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.


 Authorized Signature

PC - Polycarbonate
 MCE - Mixed cellulose ester
 G.O. - Grid Openings
 Str - Structures
 MFL - Millions of fibers per liter

TEM-7A (2009Rev.)

**Analysis of Water by Transmission Electron Microscopy
(EPA-600 R 94 134) EPA 100.2**

EMS No.	130887	Client	E.S. Babcock & Sons, Inc.
Sample No.	A9G0632-01	Date Analyzed	7/17/2009

Fibers > 10 µm in length (chrysotile)	<u>BDL*</u>	MFL
Mass (chrysotile)	<u>0</u>	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	<u>LESS</u>	
Poisson 95% Confidence Interval	<u>0 to 0.7</u>	MFL
Detection Limit	<u>0.2</u>	MFL

* BDL : Below Detection Limit; MFL: Million Fibers per Liter

Particle Size Distribution (Chrysotile)

Particle Length - Microns							
O - 0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 - 4.99	5.00 - 9.99	10 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Particle Width - Microns							
O - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 - .49	.50 - .99	1 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Aspect Ratio L/W							
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 - 99	100 - 199	200 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

TEM 7B (1994)

IEA ASBESTOS ANALYSIS

RECEIVING

TYPE OF SAMPLE
 Air Water
 Soil Bulk
 Other

LENGTHS
 All Sizes (EPA)
 (μm) ≥ 0.5
 ≥ 1.0
 ≥ 5.0
 ≥ 10.0

PCPN RANGE*
 ≥ 0.25 μm width
 ≥ 5.0 μm length

FILTER TYPE / AREA (mm±)
 MCE 385
 PC 314
 MCN 107
 Other

PORE SIZE
 0.45 μm 0.8 μm
 0.1 μm 0.22 μm
 Other 20

G.O. Area (mm²) 00
 No. of G.O. to Analyze 10

PREP

7-11-09
 DWG 3 1242-340
 PAJ 340-355
 FEZ 356

Volume _____ liters
 Working Volume 100 ml
 Weight _____ grams
 Ashed Area _____ %

Prepared By V. B. K.
 Date 7-15-09

ANALYSIS

MICROSCOPE
 H600A - Serial No. 542-36-01
 H600B - Serial No. 542-05-06
 H600C - Serial No. 542-24-03

ENERGY DISPERSIVE X-RAY SYSTEM
 KeveX - Model No. 3200-0106-0365
 KeveX - Model No. 3600-0206-0145
 Quantum System

Grid Address: 4949 X
 Screen Magnification: 150
 Camera Constant: 100
 Accelerating Voltage: 100KV
 Beam Current: 1.9 μA
 K-Factor: 1.9
 Analyst: V. B. K. Date 7-17-09

Grid Opening	Structure Number	Structure	Dimensions (mm)		NAM	TM	CM	CD	CQ	CQ	CMQ	CDQ	Fiber Classification											EDS Analysis						Comments			
			Width	Length									UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ	Na	Mg	Si	Ca	Fe								
<u>200</u>	<u>NSD</u>																																
<u>200</u>	<u>NSD</u>																																
<u>200</u>	<u>NSD</u>																																

OBSERVATIONS:

Clean
 Debris:
 Gypsum:
 Condition of the Grid: Good Moderate Undissolved Filter Moderate Very Heavy Heavy Very Heavy Very Heavy Heavy Heavy Folded

TEM ASBESTOS ANALYSIS

Client EDP
Sample No. A960625

EMS Lab No. 15001
Page of

RECEIVING

ANALYSIS

MICROSCOPE

- H600A - Serial No. 542-36-01
- H600B - Serial No. 542-05-06
- H600C - Serial No. 542-24-03
- ENERGY DISPERSIVE X-RAY SYSTEM**
- KeveX - Model No. 3200-0106-0365
- KeveX - Model No. 3600-0206-0146
Quantum System

Grid Address: B
Screen Magnification: 9900 X
Camera Constant: 2258
Accelerating Voltage: 100KV
Beam Current: 10 μ A
K-Factor: 1.0
Analyst: AKL Date: 7-17-05

Grid Opening		Structure Number	Structure	Dimensions (mm)		Fiber Classification											EDS Analysis					Comments			
Width	Length			NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ	AZZ	Na	Mg	Si		Ca	Fe	

OBSERVATIONS:

Clean
Debris
Gypsum
Condition of the Grid: Good

Very Light
Very Light
Good

Moderate
Moderate
Undissolved Filter

Heavy
Heavy
Folded

Very Heavy
Very Heavy

**Analysis of Water by Transmission Electron Microscopy
(EPA-600/4-83-043)**

EMS No. 130887 **Date Analyzed** 7/17/2009
Client E.S. Babcock & Sons, Inc.
Sample No. EMS BLANK

Fibers (chrysotile)	<u>ND</u>	MFL
> 5 Micron length (chrysotile)	<u>ND</u>	MFL
Mass (chrysotile)	<u>0</u>	ug/L
More/Less than 5 Fibers in Sample (chrysotile)	<u>LESS</u>	
Sensitivity Level	<u>0.01</u>	MFL

Particle Size Distribution (Chrysotile)

Particle Length - Microns					
O - 0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 1.99	2.00 - 2.49	2.5 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Particle Width - Microns					
O - .04	.05 - .09	.1 - .14	.15 - .19	.2 - .24	.25 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Aspect Ratio L/W					
0 - 9.9	10 - 19.9	20 - 29.9	30 - 39.9	40 - 49.9	50 & UP
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

LEW ABLES IUS ANALYSIS

Sample No. 7-1109 Page 8

TYPE OF SAMPLE
 Air Water
 Soil Bulk
 Other

LENGTHS
 All Sizes (EPA)
 (µm) ≥ 0.5
 ≥ 1.0
 ≥ 5.0
 ≥ 100

FILTER TYPE / AREA (mm²)
 MCE 385
 PC 314
 MCN 1017
 Other

METHOD OF ANALYSIS
 EPA 600/4-83-043 ISO
LEVEL OF ANALYSIS
 Chrysolite ADD
 Amphibole ADD

PORE SIZE
 0.45 µm 0.8 µm
 0.1 µm 0.22 µm
 Other 0.4
 G.O. Area (mm²) 0.0
 No. of G.O. to Analyze 20

EPA/600/R-94/134 100.1 100.2

PREP
 Volume liters
 Working Volume 500 ml
 Weight grams
 Ashed Area %
 Prepared By Ward
 Date 7-1-89

DIRECT PREP
INDIRECT PREP

MICROSCOPE
 H600A - Serial No. 542-36-01
 H600B - Serial No. 542-05-06
 H600C - Serial No. 542-24-03
ENERGY DISPERSIVE X-RAY SYSTEM
 Keveex - Model No. 3200-0106-0365
 Keveex - Model No. 3600-0206-0146
 Quantum System

Grid Address: A
 Screen Magnification: 197.6 X
 Camera Constant: 29.8
 Accelerating Voltage: 100KV
 Beam Current: 1.0 µA
 K-Factor:
 Analyst Ward Date 7-1-89

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification												EDS Analysis					Comments								
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADK	AQ	ADQ	AZQ	AZZ	Na	Mg		Si	Ca	Fe					
833	N5D																													
834	N5D																													
835	N5D																													
836	N5D																													
837	N5D																													
838	N5D																													
839	N5D																													
840	N5D																													
841	N5D																													
842	N5D																													

OBSERVATIONS:

Clean Debris: Gypsum: Condition of the Grid:
 Very Light Very Light Good
 Light Light Scrappy
 Moderate Moderate Undissolved Filter
 Heavy Heavy Folded
 Very Heavy Very Heavy

TEM ASBESTOS ANALYSIS

Client W. V. T. N. G. EMS Lab No. 1200 Page of

Sample No. 7-1189

RECEIVING

- MICROSCOPE**
- H600A - Serial No. 542-36-01
 - H600B - Serial No. 542-05-06
 - H600C - Serial No. 542-24-03
 - ENERGY DISPERSIVE X-RAY SYSTEM
 - KeveX - Model No. 3200-0106-0365
 - KeveX - Model No. 3600-0206-0146
- Quantum System

Grid Address: B 2945 X
 Screen Magnification: 298
 Camera Constant: 100KV
 Accelerating Voltage: 10 μ A
 Beam Current: 1.9
 K-Factor: LKOK

Date 7-18-89
 Analyst LKOK

ANALYSIS

Grid Opening	Structure Number	Structure	Dimensions (mm)		Fiber Classification										EDS Analysis				Comments							
			Width	Length	NAM	TM	CM	CD	CQ	CMQ	CDQ	UF	AD	AX	ADX	AQ	ADQ	AZQ		AZZ	Na	Mg	Si	Ca	Fe	
B33	N5D																									
B36	N5D																									
B37	N5D																									
B38	N5D																									
B39	N5D																									
B40	N5D																									
B41	N5D																									
B42	N5D																									
B43	N5D																									
B44	N5D																									
B45	N5D																									

OBSERVATIONS:

- Clean
- Debris
- Gypsum
- Condition of the Grid:
- Very Light
- Very Light
- Good

- Light
- Light
- Sc

- Moderate
- Moderate
- Undissolved Filter

- Heavy
- Heavy
- Folded

- Very Heavy
- Very Heavy

SUBCONTRACT ORDER

E.S. Babcock & Sons, Inc.
A9G0632

130887

SENDING LABORATORY:

E.S. Babcock & Sons, Inc.
P. O. Box 432
Riverside, CA 92502-0432
Phone: (951) 653-3351
Fax: (951) 653-1662
Project Manager: Lorenzo (Z) Rodriguez

RECEIVING LABORATORY:

EMS Laboratories
117 W. Bellevue Drive
Pasadena, CA 91105
Phone : (626) 568-4065
Fax: (626) 796-5282

Copy/Relog from A9G0625.
Client: Victor Valley Reclamation Authority
Sampler: Mike Tarango

Analysis	Due	Expires Regulatory Days Past Date Sampled	Laboratory ID	Comments
Sample ID: A9G0632-01	Liquid	Sampled:07/07/09 07:18	#6212 Final Effluent To Mojave River	Proj.No.: [none]
Asbestos	08/04/09 17:00	01/03/10 07:18		

Containers Supplied:
~~Quart Poty~~ - Unpres (A)
Half Gallon
AB 7/9/09

All Containers Intact: Yes No Samples Preserved Properly: Yes No

Samples Received at oC Sample Lables / COC Agree: Yes No Custody Seals Present: Yes No

Acknowledgement of sample receipt is requested. Please reply to slozon@babcocklabs.com or Fax to 951-653-1662. Thank You.

Released By: [Signature] Date: 7-8-09 Received By: [Signature] Date: 7-10-09

Released By: _____ Date: _____ Received By: _____ Date: _____



SUBCONTRACT LABORATORY CHAIN OF CUSTODY & ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California
 Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcfoolier@vvwwra.com

Project Name	Annual VVWRA Plant NEDES Permit Samples	Sample Type	Sample Date	Sample Time	Sample Location/Description	Compos.	Metals	Trace	Organic	Other	Asbestos	Total # of Containers	Sample Preservation Method(s)	Received By (Sign)	Company	Print
Victor Valley Wastewater Reclamation Authority	Annual VVWRA Plant NEDES Permit Samples	Grab	7/6/09	0705	Raw Effluent to Mojave River Composite	X						1	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/6/09	0708	Secondary Effluent to Fore-Irrigation Ponds Composite	X						1	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/6/09	0714	Raw Plant Influent Composite	X						1	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/2/09	0718	Plant Effluent to Mojave River Grab	X						20	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/7/09	0728	Plant Effluent to Mojave River Grab	X						1	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/7/09	0734	Secondary Effluent to Fore-Irrigation Ponds Grab	X						2	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/7/09	0737	Primary Effluent Grab	X						1	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
			7/7/09	0730	Raw Plant Influent Grab	X						15	Refrigeration	Pring J. Mendoz	Company: VVWRA	Pring J. Mendoz
Relinquished By (Sign):	Mike Garza	Received By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Relinquished By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Received By (Sign):	Pring J. Mendoz	Company:	Company: VVWRA	Company:	Company: VVWRA	Company: VVWRA
Print: Mike Garza	Company: VVWRA	Print: Pring J. Mendoz	Company: VVWRA	Date/Time:	0735	Relinquished By (Sign):	Pring J. Mendoz	Date/Time:	0735	Received By (Sign):	Pring J. Mendoz	Company:	Company: VVWRA	Company:	Company: VVWRA	Company: VVWRA
Relinquished By (Sign):	Pring J. Mendoz	Received By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Relinquished By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Received By (Sign):	Pring J. Mendoz	Company:	Company: VVWRA	Company:	Company: VVWRA	Company: VVWRA
Print: Pring J. Mendoz	Company: VVWRA	Print: Pring J. Mendoz	Company: VVWRA	Date/Time:	7/7/09	Relinquished By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Received By (Sign):	Pring J. Mendoz	Company:	Company: VVWRA	Company:	Company: VVWRA	Company: VVWRA
Print: Pring J. Mendoz	Company: VVWRA	Print: Pring J. Mendoz	Company: VVWRA	Date/Time:	7/7/09	Relinquished By (Sign):	Pring J. Mendoz	Date/Time:	7/7/09	Received By (Sign):	Pring J. Mendoz	Company:	Company: VVWRA	Company:	Company: VVWRA	Company: VVWRA

Sample Condition Upon Receipt by Laboratory: Yes No
 Samples Received on Ice? Yes No
 Samples Received Intact? Yes No
 Temperature _____ °C
 Samples sent via courier to: E.S. Babcock Laboratories
 Lab # A960632A
 Please Fax a copy of the completed Chain of Custody document to: Gina C. Garza, VVWRA at (760) 246-5440
 Date: 7/20/09



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 3 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 07-Aug-2009

Work Order Number: A9G3124

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

A9G3124-02

Sample Description #6430 Final Eff. To Mojave River Grab
Matrix Liquid
Sampled Date/Time 07/28/09 07:28
Received Date/Time 07/28/09 14:40

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Anions (Nitrate as N), Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen), and Volatile Organic Compounds by EPA 624 (listing various chlorinated hydrocarbons and other organics).

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

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www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons, Inc.

Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 4 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 07-Aug-2009

Work Order Number: **A9G3124**

Received on Ice (Y/N): Yes Temp: 5 °C

Laboratory Reference Number

A9G3124-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
#6430 Final Eff. To Mojave River Grab	Liquid	07/28/09 07:28	07/28/09 14:40

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 624							
Dibromochloromethane	1.7	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Ethylbenzene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	07/30/09 05:59	eec	
Methylene Chloride	ND	3.0	ug/L	EPA 624	07/30/09 05:59	eec	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Toluene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Trichloroethene	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	07/30/09 05:59	eec	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	07/30/09 05:59	eec	
Surrogate: 1,2-Dichloroethane-d4	105	% 78.5-125		EPA 624	07/30/09 05:59	eec	
Surrogate: Bromofluorobenzene	102	% 80-120		EPA 624	07/30/09 05:59	eec	
Surrogate: Toluene-d8	98.6	% 80-120		EPA 624	07/30/09 05:59	eec	

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location
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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
 Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 9 of 9
 Project Name: VVWRA-Lab
 Project Number: [none]

Work Order Number: A9G3124

Report Date: 07-Aug-2009

Received on Ice (Y/N): Yes Temp: 5 °C

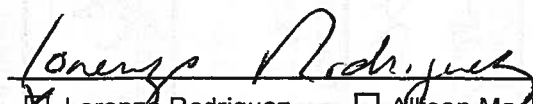
Notes and Definitions

- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

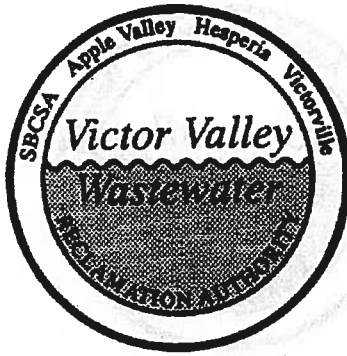
cc: ESB_Short_Report

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Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 6223


Collection Method: Grab

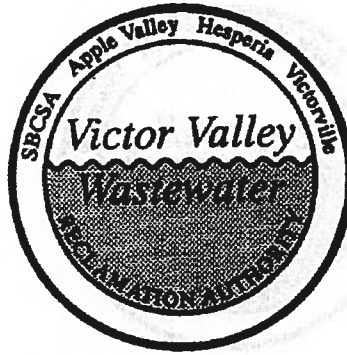
Sample Collected By: M. Tarango

Sample Collection Date/Time: 07/07/09 1054

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.


Gina Cloutier, Laboratory Supervisor



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VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 6279


Collection Method: Grab

Sample Collected By: C. Carlson

Sample Collection Date/Time: 07/13/09 1055

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.


Gina Cloutier, Laboratory Supervisor



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VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 6380

Collection Method: Grab

Sample Collected By: F. Salazar

Sample Collection Date/Time: 07/22/09 0946

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.

A handwritten signature in black ink, appearing to read 'Gina Cloutier', written over a horizontal line.

Gina Cloutier, Laboratory Supervisor



Victor Valley Wastewater Reclamation Authority

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VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 6489


Collection Method: Grab

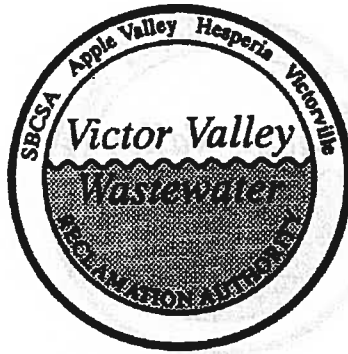
Sample Collected By: F. Salazar

Sample Collection Date/Time: 08/03/09 0944

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.


Gina Cloutier, Laboratory Supervisor



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VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 6574


Collection Method: Grab

Sample Collected By: M. Tarango

Sample Collection Date/Time: 08/10/09 0954

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.



Gina Cloutier, Laboratory Supervisor



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VVWRA Laboratory Analysis Report

Sampling Site: Final Effluent (Chlorine Contact Basin Effluent) # 7320


Collection Method: Grab

Sample Collected By: R.C. Elliott

Sample Collection Date/Time: 10/13/09 1223

Constituent	Result	Units	Method	RL	Analyst
Fecal Coliform Bacteria	< 2.0	MPN/100 mL	SM 9221-E	2.0	G. Cloutier

VVWRA has applied for CDPH-ELAP certification for Fecal Coliforms by method SM 9221-E and completed DMRQA-29 with acceptable results. Certification is currently pending, awaiting laboratory inspection by CDPH-ELAP.


Gina Cloutier, Laboratory Supervisor

SECTION 6

**PERCOLATION POND
INFLUENT MONITORING**

SECTION

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VWVRA
 Percolation Pond Influent Monitoring
 2009
 Schedule

Parameter	Units	Type of Sample	Frequency
BOD	mg/L	24 Hour Composite	Three/week
MBAS	mg/L	24 Hour composite	Weekly
Dissolved Oxygen	mg/L	Grab	Weekly
pH	pH Units	Grab	Weekly
Total Dissolved Solids	mg/L	24 Hour Composite	Monthly
Nitrate Nitrogen	mg/L as N	Grab	Monthly
Kjeldahl Nitrogen	mg/L as N	Grab	Monthly
Ammonia Nitrogen	mg/L as N	Grab	Monthly

RA
Percolation Pond Influent Monitoring
Three/week - Monthly
2009

MARCH		APRIL															
3/Week		Weekly					Monthly										
Date	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Total Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)	Date	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Total Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)
1	14.00	0.10	2.70	6.8	311	9.2000	1.0	0.1200	1	10.00			6.8				
2	12.00			6.8					2	9.00		2.45	6.9				
3	8.00		2.55	6.7					3				6.9				
4	6.00			6.7					4				6.8				
5				6.7					5	9.00	0.13	2.50	6.8	341			
6				6.8					6	8.00			6.8				
7				6.8					7	8.00			6.8				
8	8.00	0.18	2.50	6.7	310	8.1000	0.9	<0.1000	8	8.00			6.7		4.7000	1.1	<0.1000
9	7.00			6.7					9	9.00		2.40	6.7				
10	6.00			6.7					10				6.8				
11	7.00		2.28	6.8					11				6.8				
12				6.8					12				6.7				
13				6.8					13	8.00	0.10	2.35	6.7	388			
14				6.8					14	9.00			6.8				
15				6.8					15	8.00			6.8				
16	8.00	0.08	2.17	6.8	443	6.8000	1.4	0.1300	16	8.00		2.30	6.8		5.9000	0.8	0.1300
17	7.00			6.7					17				6.8				
18	8.00			6.8					18				6.9				
19	8.00		2.79	6.8					19				6.9				
20				6.8					20	8.00	0.11	2.50	6.9	278			
21				6.8					21	10.00			6.8				
22				6.8					22	12.00			6.8				
23	8.00	0.18	2.84	6.7	342	7.4000	0.9	0.1100	23	12.00		2.35	6.7				
24	8.00			6.7					24				6.7				
25	11.00			6.7					25				6.9				
26	11.00		2.50	6.8					26				6.9				
27				6.8					27	10.00	0.12	2.10	6.8	443			
28				6.9					28	12.00			6.7		5.3000	2.0	0.2600
29				6.8					29	10.00			6.7				
30	9.00	0.13	2.50	6.8	326	6.7000	1.1	0.1100	30	10.00		2.25	6.6				
31	10.00			6.9					31								
AVG	8.67	0.13	2.54	6.8	346	7.6400	1.1	<0.1140	AVG	9.44	0.12	2.36	6.8	363	5.1500	1.4	<0.1500
MIN	6.00	0.08	2.17	6.7	310	6.7000	0.9	<0.1000	MIN	8.00	0.10	2.10	6.6	278	4.7000	0.8	<0.1000
MAX	14.00	0.18	2.84	6.8	443	9.2000	1.4	0.1300	MAX	12.00	0.13	2.50	6.8	443	5.9000	2.0	0.2600

VWRA
Percolation Pond Influent Monitoring
Three/week - Monthly
2009

MAY		JUNE														
Date	3/Week	Weekly					Monthly Total									
	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
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20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
AVG	8.31	0.11	2.10	6.8	407	6.3000	1.8	0.6125	<7.50	0.11	2.22	6.9	402	5.4800	1.2	0.2040
MIN	6.00	0.09	1.85	6.7	387	6.0000	1.0	0.1100	4.00	0.07	1.99	6.8	356	4.9000	0.5	0.1200
MAX	11.00	0.13	2.30	6.7	425	7.1000	3.2	1.5000	24.00	0.16	2.30	6.9	432	6.3000	2.1	0.2900

RA
Percolation Pond Influent Monitoring
Three/week - Monthly
2009

Date	JULY					AUGUST										
	3/Week	Weekly	Monthly Total			3/Week	Weekly	Monthly Total								
	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)
1	5.00			7.0												
2	5.00		2.31	6.9												
3				7.1												
4				7.1												
5				7.0												
6	5.00	0.15		6.9	393	6.4000	0.4	0.1600								
7	4.00			6.9												
8	5.00			6.9												
9	4.00		2.35	6.9												
10				6.8												
11				7.0												
12				6.8												
13	6.00	0.10	2.29	6.9	370	6.9000	0.6	0.1900								
14	6.00			6.8												
15	6.00			6.8												
16	7.00		2.20	6.8												
17				6.9												
18				6.9												
19				6.8												
20	6.00	0.11	2.05	6.8	397	4.4000	1.4	0.2400								
21	6.00			6.9												
22	4.00			6.9												
23	4.00		2.12	6.9												
24				6.8												
25				7.0												
26				6.9												
27	5.00	0.10	2.41	6.8	399	5.1000	0.7	0.1600								
28	6.00			6.9												
29	4.00			6.8												
30	5.00			6.8												
31				6.8												
AVG	5.17	0.12	2.25	6.9	390	5.7000	0.8	0.1875	5.41	0.10	1.95	6.8	397	6.7750	0.5	<0.1600
MIN	4.00	0.10	2.05	6.8	370	4.4000	0.4	0.1600	3.00	0.07	1.84	6.7	379	5.5000	0.4	<0.1000
MAX	7.00	0.15	2.41	7.0	399	6.9000	1.4	0.2400	11.00	0.13	2.11	7.0	427	7.6000	0.6	0.2500

VWRA
Percolation Pond Influent Monitoring
Three/week - Monthly
2009

SEPTEMBER										OCTOBER																			
3/Week					Weekly					Monthly Total					3/Week					Weekly					Monthly Total				
Date	BOD 5 Day (MGL)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MGL)	TKN (mg/L)	NH3 N Ammonia (MGL)	Date	BOD 5 Day (MGL)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MGL)	TKN (mg/L)	NH3 N Ammonia (MGL)	Date	BOD 5 Day (MGL)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MGL)	TKN (mg/L)	NH3 N Ammonia (MGL)			
1	4.00		1.82	6.8		7.9000	0.7	0.2400	1	6.00		1.89	6.7					2	6.00			6.7							
2	6.00			6.8					2				6.7					3				7.0							
3	5.00		1.85	6.7					3				6.8					4				6.8							
4				6.8					4	0.11			6.8					5	8.00	0.11		6.8	380						
5				6.9					5				6.7					6	9.00			6.8							
6				6.7					6				6.8					7	5.00			6.8							
7	4.00	0.10	2.10	6.7	427	6.8000	0.6	0.1800	7	5.00		2.10	6.8					8	5.00			6.8							
8	5.00			6.7					8				6.8					9				6.8							
9	4.00		1.85	6.7					9				6.8					10				6.8							
10	4.00			6.8					10				6.8					11				6.7							
11				6.8					11				6.8					12	10.00	0.16		6.7							
12				6.8					12				6.9					13	9.00			6.9							
13				6.8					13				6.8					14	6.00			6.8							
14	4.00	0.19	2.10	6.7	445	8.2000	0.5	0.1900	14	6.00			6.8					15	5.00			6.7							
15	7.00			6.8					15	5.00		1.89	6.7					16				6.8							
16	6.00		1.90	6.7					16				6.8					17				6.8							
17	6.00			6.7					17				6.8					18				6.8							
18				6.8					18				6.8					19	5.00	0.12		6.7							
19				6.8					19	5.00		1.83	6.7					20	7.00			6.7							
20				6.8					20	7.00			6.7					21	6.00			6.7							
21	7.00	0.12	2.02	6.7	447	7.5000	1.4	0.2700	21	6.00			6.6					22	6.00			6.6							
22	8.00			6.7					22	6.00		1.77	6.7					23				6.7							
23	7.00			6.7					23				6.8					24				6.8							
24	8.00		1.86	6.6					24				6.7					25				6.7							
25				6.7					25				6.8					26	7.00	0.15		6.6							
26				6.8					26	7.00			6.7					27	7.00			6.7							
27				6.7					27	7.00			6.7					28	6.00			6.7							
28	6.00	0.10	1.72	6.7	401	5.4000	0.7	0.2600	28	6.00			6.8					29	5.00			6.8							
29	5.00			6.8					29	5.00		2.23	6.8					30				6.8							
30	4.00			6.8					30				6.7					31				6.7							
AVG	5.56	0.13	1.91	6.7	430	7.1600	0.8	0.2280	AVG	6.59	0.14	1.95	6.7	417	4.6750	1.1	<0.1450	AVG	6.59	0.14	1.95	6.7	417	4.6750	1.1	<0.1450			
MIN	4.00	0.10	1.72	6.6	401	5.4000	0.5	0.1800	MIN	5.00	0.11	1.77	6.6	380	3.1000	0.8	<0.1000	MIN	5.00	0.11	1.77	6.6	380	3.1000	0.8	<0.1000			
MAX	8.00	0.19	2.10	6.8	447	8.2000	1.4	0.2700	MAX	10.00	0.16	2.23	6.7	469	5.9000	1.4	0.1800	MAX	10.00	0.16	2.23	6.7	469	5.9000	1.4	0.1800			

Percolation Pond Influent Monitoring
Three/week - Monthly

2009

NOVEMBER										DECEMBER									
3/Week		Weekly				Monthly Total				3/Week		Weekly				Monthly Total			
Date	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)			Date	BOD 5 Day (MG/L)	MBAS (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Dissolved Solids (mg/L)	Nitrate NO3 N (MG/L)	TKN (mg/L)	NH3 N Ammonia (MG/L)
1	6.00	0.12		6.7	385						1	20.00			7.1		4.2000	2.6	0.7500
2	6.00			6.7							2	14.00			7.1				
3	6.00			6.7		5.1000	1.0	0.1200			3	11.00			7.1				
4	6.00			6.8							4				7.1				
5	5.00		2.15	6.7							5			2.35	7.0				
6				7.2							6				7.1				
7				7.1							7	24.00	0.11	1.87	7.1	424			
8	5.00			7.1							8	12.00			7.0		4.8000	1.2	<0.1000
9	6.00	0.11		7.1	377	5.5000	0.8	0.1500			9	10.00		2.15	7.0				
10	8.00			7.1							10	11.00			7.2				
11	8.00			7.1							11				7.1				
12			2.16	7.1							12				7.1				
13				7.1							13				7.1				
14				7.1							14	12.00	0.12		7.1	392			
15	6.00	0.08		7.1	452	5.5000	1.1	0.1100			15	12.00		2.15	7.1		4.9000	1.0	0.2300
16	9.00			7.2							16	12.00			7.0				
17	13.00			7.2							17	8.00			7.1				
18	10.00		2.23	7.1							18				7.1				
19				7.2							19	10.00			7.1				
20				7.2							20	8.00			7.0				
21				7.2							21	13.00	0.15	2.18	7.2	424	6.1000	1.5	0.9600
22				7.1							22	11.00		2.45	7.2				
23	7.00	0.11		7.1	270						23				7.2				
24	8.00		2.42	7.1		4.5000	1.5	0.1200			24	12.00			7.1				
25				7.2							25	16.00			7.2				
26				7.2							26	20.00			7.2				
27				7.3							27	13.00			7.0				
28				7.1							28	10.00	0.17	2.29	7.1	378	5.3000	1.4	0.5000
29				7.1							29	10.00		2.20	7.1				
30	24.00	0.14		7.1	346						30	8.00			7.2				
AVG	8.47	0.11	2.24	7.1	366	5.1500	1.1	0.1250			AVG	12.59	0.14	2.21	7.1	405	5.0600	1.5	<0.5140
MIN	5.00	0.08	2.15	6.7	270	4.5000	0.8	0.1100			MIN	8.00	0.11	1.87	7.0	378	4.2000	1.0	<0.1000
MAX	24.00	0.14	2.42	6.7	452	5.5000	1.5	0.1500			MAX	24.00	0.17	2.45	7.1	424	6.1000	2.6	0.9600

SECTION 7

GROUNDWATER MONITORING

SECTION 1

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Ground Water Monitoring 2009 Schedule

Parameter	Units	Type of Sample	Frequency	2009 Sample Month(s)
COD	mg/L	Grab	Semiannually	January/August
MBAS	mg/L	Grab	Semiannually	January/August
Total Dissolved Solids	mg/L	Grab	Semiannually	January/August
Chlorides	mg/L	Grab	Semiannually	January/August
Sodium	mg/L	Grab	Semiannually	January/August
Sulfate	mg/L	Grab	Semiannually	January/August
Nitrate Nitrogen	mg/L as N	Grab	Semiannually	January/August
Kjeldahl Nitrogen	mg/L as N	Grab	Semiannually	January/August
Ammonia Nitrogen	mg/L as N	Grab	Semiannually	January/August
Total Organic Carbon	mg/L	Grab	Semiannually	January/August
Total Petroleum Hydrocarbons	mg/L	Grab	Semiannually	January/August
Bromoform	mg/L	Grab	Semiannually	January/August
Chloroform	mg/L	Grab	Semiannually	January/August
Dibromochloromethane	mg/L	Grab	Semiannually	January/August
Dichlorobromomethane	mg/L	Grab	Semiannually	January/August
Total Cyanides	mg/L	Grab	Annually	August
Total Phenols	mg/L	Grab	Annually	August
Purgeable Organics	mg/L	Grab	Annually	August
Base/Neutral Extractable Organics	mg/L	Grab	Annually	August
Acid Extractable Organics	mg/L	Grab	Annually	August
Heavy Metals	mg/L	Grab	Annually	August
Methyl t-Butyl Ether	ug/L	Grab	Annually	August

VWRA

Ground Water Monitoring
Semiannual Event # 1
January - February 2009

Well	Sample Date	Total Dissolved										Total Organic Carbon (mg/L)	Total Hydrocarbons (mg/L)	Chloroform (µg/L)	Dibromo-chloro-methane (µg/L)	Dichloro-bromo-methane (µg/L)
		COD (mg/L)	MBAS (mg/L)	Solids (mg/L)	Chlorides (mg/L)	Sulfate (mg/L)	Nitrate As N (mg/L)	TKN (mg/L)	Ammonia As N (mg/L)	Bromoform (µg/L)						
NW 1	02/17/09	22	<0.10	408	65	62	79	<0.20	<0.10	0.24	1.6	1.4	<0.5000	<0.5000	<0.5000	<0.5000
NW 2	01/21/09	<10	<0.05	418	62	99	45	7.8	<0.10	<0.10	<0.7	<1.0	<0.5000	1.20	<0.5000	<0.5000
NW 3	01/21/09	11	0.08	588	100	120	43	0.3	0.40	<0.10	2.8	<1.0	<0.5000	<0.5000	<0.5000	<0.5000
OW 1	02/17/09	16	0.070	744	32	97	240	<0.20	0.20	<0.10	1.7	<1.0	<0.5000	<0.5000	<0.5000	<0.5000
OW 4	01/22/09	<10	0.06	454	62	110	43	8.7	<0.10	<0.10	<0.70	<1.0	<0.5000	2.50	<0.5000	<0.5000
OW 6	01/22/09	<10	0.050	406	36	77	85	2.2	<0.10	<0.10	<0.70	<1.0	<0.5000	<0.5000	<0.5000	<0.5000
SP 1	01/21/09	<10	0.05	450	61	95	41	9.5	0.20	<0.10	0.74	<1.0	<0.5000	3.4	<0.5000	<0.5000
SP 2	01/21/09	<10	<0.05	474	59	94	46	9.6	<0.10	<0.10	<0.70	<1.0	<0.5000	4.0	<0.5000	<0.5000
SP 3	01/22/09	<10	0.06	380	61	85	43	10.0	<0.10	<0.10	1.1	<1.0	<0.5000	1.50	<0.5000	<0.5000
SP 4	01/22/09	14	<0.05	498	58	84	39	9.4	<0.10	<0.10	<0.50	<1.0	<0.5000	3.80	<0.5000	<0.5000
LW 1	02/17/09	30	0.36	282	32	47	32	5.1	5.8	3.9	6.7	<1.0	<0.5000	<0.5000	<0.5000	<0.5000
LW 2	02/17/09	19	<0.05	615	90	130	93	24	<0.10	<0.10	<1.4	<1.0	<0.5000	1.90	<0.5000	<0.5000
LW 3	02/17/09	10	0.17	679	80	170	94	16	<0.10	<0.10	1.3	<1.0	<0.5000	0.67	<0.5000	<0.5000
LW 4	02/17/09	<10	0.11	489	46	90	93	9.3	<0.10	<0.10	<0.70	<1.0	<0.5000	<0.5000	<0.5000	<0.5000

Ground Water Monitoring
 Semiannual Event # 2
 August 2009

Well	Sample Date	Total Dissolved Solids										Total Organic Carbon (mg/L)	Total Petroleum Hydrocarbons (mg/L)	Total Bromoform (µg/L)	Total Chloroform (µg/L)	Dibromo-chloro-methane (µg/L)	Dichloro-bromo-methane (µg/L)
		COD (mg/L)	MBAS (mg/L)	Chlorides (mg/L)	Sulfate (mg/L)	Nitrate As N (mg/L)	TKN (mg/L)	Ammonia As N (mg/L)	Chlorides (mg/L)	Sulfate (mg/L)	As N (mg/L)						
NW 1	08/27/09	18	<0.05	387	68	63	70	<0.20	1.5	0.17	0.84	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000
NW 2	08/27/09	12	<0.05	549	66	99	42	6.1	<0.40	<0.10	1.2	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000
NW 3	08/26/09	18	<0.05	379	94	130	46	0.29	0.46	<0.10	3.2	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000
OW 1	08/27/09	11	<0.05	704	41	100	260	<0.20	0.70	0.11	1.6	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000
OW 4	08/27/09	<10	<0.05	415	59	100	39	11	<0.20	<0.10	0.71	<1.0	<0.5000	2.50	<0.5000	<0.5000	<0.5000
OW 6	08/27/09	<10	<0.05	385	34	75	82	1.8	0.58	<0.10	<0.70	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000
SP 1	08/26/09	22	<0.05	434	62	93	40	7.9	<0.20	<0.10	1.1	<1.0	<0.5000	1.70	<0.5000	<0.5000	<0.5000
SP 2	08/26/09	13	<0.05	431	65	91	40	5.7	<0.10	<0.10	0.97	<1.0	<0.5000	2.80	<0.5000	<0.5000	<0.5000
SP 3	08/26/09	<10	<0.05	373	64	85	36	6.7	<0.20	<0.10	20*	<1.0	<0.5000	3.60	<0.5000	<0.5000	<0.5000
SP 4	08/27/09	14	<0.05	486	62	91	36	8.9	0.26	<0.10	1.0	<1.0	<0.5000	3.40	<0.5000	<0.5000	<0.5000
LW 1	08/27/09	12	<0.05	486	64	100	50	9.1	<0.40	<0.10	<0.70	<1.0	<0.5000	2.30	<0.5000	<0.5000	<0.5000
LW 2	08/28/09	12	<0.05	456	62	100	49	10	<0.20	<0.10	<0.70	<1.0	<0.5000	2.00	<0.5000	<0.5000	<0.5000
LW 3	08/27/09	12	<0.05	483	64	100	51	11	<0.20	<0.10	<0.70	<1.0	<0.5000	1.40	<0.5000	<0.5000	<0.5000
LW 4	08/27/09	<10	<0.05	373	44	85	73	7.1	<0.10	<0.10	<0.70	<1.0	<0.5000	<0.5000	<0.5000	<0.5000	<0.5000

*SP-3 was re-sampled in duplicate on 11/16/09 to verify the Total Organic Carbon result reported during the August 2009 sampling event. The Total Organic Carbon results for the re-samples were reported at 1.3 mg/L and 1.4 mg/L.

VWRA
Groundwater Monitoring
Annual
2009

Well OW 1

August

Sample Date:	08/27/09	Units	Result	EPA Method
Parameter				
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E	
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4	
<u>Purgable Organics</u>				
Volatile Organic Cmpds	(mg/L)	ND	EPA 624	
All results Non-Detectable.				
<u>Base Neutral Extractable</u>				
Semivolatile Organic Cmpds	(mg/L)	ND	EPA 625	
All results Non-Detectable				
<u>Acid Extractable Organics</u>				
Phenol Group	(mg/L)	ND	EPA 625	
<u>Heavy Metals</u>				
Metals and Metalloids	(mg/L)	ND	EPA 200.8	
All results Non-Detectable with the exception of:				
Barium	(mg/L)	0.76		
Boron	(mg/L)	0.13		
Iron	(mg/L)	0.56		
Manganese	(mg/L)	1.40		
Vanadium	(mg/L)	0.021		
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624	

Well NW 1

August

Sample Date:	08/27/09	Units	Result	EPA Method
Parameter				
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E	
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4	
<u>Purgable Organics</u>				
Volatile Organic Cmpds	(mg/L)	ND	EPA 624	
All results Non-Detectable.				
<u>Base Neutral Extractable</u>				
Semivolatile Organic Cmpds	(mg/L)	ND	EPA 625	
All results Non-Detectable				
<u>Acid Extractable Organics</u>				
Phenol Group	(mg/L)	ND	EPA 625	
<u>Heavy Metals</u>				
Metals and Metalloids	(mg/L)	ND	EPA 200.8	
All results Non-Detectable with the exception of:				
Arsenic	(mg/L)	0.0075		
Barium	(mg/L)	0.29		
Boron	(mg/L)	0.20		
Copper	(mg/L)	0.010		
Iron	(mg/L)	12.0		
Manganese	(mg/L)	1.30		
Vanadium	(mg/L)	0.021		
Zinc	(mg/L)	0.029		
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624	

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Groundwater Monitoring
Annual
2009

Well OW 4

August

Sample Date: Parameter	08/27/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Compounds All results Non-Detectable with the exception of: Chloroform	(mg/L)	ND 0.0025	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Compds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Arsenic Barium Boron Iron Vanadium	(mg/L)	ND 0.0050 0.074 0.27 0.065 0.020	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

Well OW 6

August

Sample Date: Parameter	08/27/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Compounds All results Non-Detectable	(mg/L)	ND	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Compds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Barium Boron Iron Manganese	(mg/L)	ND 0.077 0.17 0.44 0.048	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

VWRA
Groundwater Monitoring
Annual
2009

Well NW 2

Sample Date: Parameter	08/27/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Arsenic Barium Boron Iron Manganese Vanadium	(mg/L)	ND	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

Well NW 3

Sample Date: Parameter	08/26/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Arsenic Barium Boron Iron Manganese Molybdenum Vanadium	(mg/L)	ND	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

VWRA
Groundwater Monitoring
Annual
2009

Well SP 3

August

Sample Date:	08/26/09	Parameter	Units	Result	EPA Method
<u>Total Cyanides</u>					
	(mg/L)	ND		SM 4500CN E	
<u>Total Phenols</u>					
	(mg/L)	ND		EPA 420.4	
<u>Purgable Organics</u>					
Volatile Organic Cmpds					
All results Non-Detectable with the exception of:					
	(mg/L)	ND		EPA 624	
	(mg/L)	0.0036			
		Chloroform			
<u>Base Neutral Extractable</u>					
Semivolatile Organic Cmpds					
All results Non-Detectable					
	(mg/L)	ND		EPA 625	
<u>Acid Extractable Organics</u>					
Phenol Group					
	(mg/L)	ND		EPA 625	
<u>Heavy Metals</u>					
Metals and Metalloids					
All results Non-Detectable with the exception of:					
	(mg/L)	ND		EPA 200.8	
	(mg/L)	0.047			
	(mg/L)	0.22			
	(mg/L)	0.60			
	(mg/L)	0.011			
	(mg/L)	0.022			
	(ug/L)	ND		EPA 624	
<u>Methyl t-Butyl Ether</u>					

Well SP 4

August

Sample Date:	08/27/09	Parameter	Units	Result	EPA Method
<u>Total Cyanides</u>					
	(mg/L)	ND		SM 4500CN E	
<u>Total Phenols</u>					
	(mg/L)	ND		EPA 420.4	
<u>Purgable Organics</u>					
Volatile Organic Cmpds					
All results Non-Detectable with the exception of:					
	(mg/L)	ND		EPA 624	
	(mg/L)	0.0034			
		Chloroform			
<u>Base Neutral Extractable</u>					
Semivolatile Organic Cmpds					
All results Non-Detectable					
	(mg/L)	ND		EPA 625	
<u>Acid Extractable Organics</u>					
Phenol Group					
	(mg/L)	ND		EPA 625	
<u>Heavy Metals</u>					
Metals and Metalloids					
All results Non-Detectable with the exception of:					
	(mg/L)	ND		EPA 200.8	
	(mg/L)	0.20			
	(mg/L)	0.26			
	(mg/L)	7.70			
	(mg/L)	0.015			
	(mg/L)	0.18			
	(mg/L)	0.031			
	(mg/L)	0.033			
	(ug/L)	ND		EPA 624	
<u>Methyl t-Butyl Ether</u>					

VVWRA
Groundwater Monitoring
Annual
2009

Well LW 1
August

Sample Date: Parameter	08/27/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Cmpds All results Non-Detectable with the exception of: Chloroform	(mg/L)	ND 0.0014	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Barium Boron Vanadium	(mg/L)	ND 0.74 0.20 0.021	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

Well LW 2
August

Sample Date: Parameter	08/27/09 Units	Result	EPA Method
<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
<u>Purgable Organics</u> Volatile Organic Cmpds All results Non-Detectable with the exception of: Chloroform	(mg/L)	ND 0.0020	EPA 624
<u>Base Neutral Extractable</u> Semivolatile Organic Cmpds All results Non-Detectable	(mg/L)	ND	EPA 625
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND	EPA 625
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of: Barium Boron Vanadium	(mg/L)	ND 0.067 0.24 0.023	EPA 200.8
<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

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Annual
2009

Well LW 3

August

Sample Date:	08/26/09	Parameter	Units	Result	EPA Method
		<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
		<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
		<u>Purgable Organics</u>			
		Volatile Organic Cmpds	(mg/L)	ND	EPA 624
		All results Non-Detectable with the exception of: Chloroform	(mg/L)	0.0014	
		<u>Base Neutral Extractable</u>			
		Semivolatile Organic Cmpds	(mg/L)	ND	EPA 625
		All results Non-Detectable			
		<u>Acid Extractable Organics</u>			
		Phenol Group	(mg/L)	ND	EPA 625
		<u>Heavy Metals</u>			
		Metals and Metalloids	(mg/L)	ND	EPA 200.8
		All results Non-Detectable with the exception of:			
		Arsenic	(mg/L)	0.0093	
		Barium	(mg/L)	0.18	
		Boron	(mg/L)	0.27	
		Iron	(mg/L)	0.14	
		Manganese	(mg/L)	1.30	
		Vanadium	(mg/L)	0.031	
		<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

Well LW 4

August

Sample Date:	08/27/09	Parameter	Units	Result	EPA Method
		<u>Total Cyanides</u>	(mg/L)	ND	SM 4500CN E
		<u>Total Phenols</u>	(mg/L)	ND	EPA 420.4
		<u>Purgable Organics</u>			
		Volatile Organic Cmpds	(mg/L)	ND	EPA 624
		All results Non-Detectable.			
		<u>Base Neutral Extractable</u>			
		Semivolatile Organic Cmpds	(mg/L)	ND	EPA 625
		All results Non-Detectable			
		<u>Acid Extractable Organics</u>			
		Phenol Group	(mg/L)	ND	EPA 625
		<u>Heavy Metals</u>			
		Metals and Metalloids	(mg/L)	ND	EPA 200.8
		All results Non-Detectable with the exception of:			
		Barium	(mg/L)	0.053	
		Boron	(mg/L)	0.12	
		Vanadium	(mg/L)	0.022	
		<u>Methyl t-Butyl Ether</u>	(ug/L)	ND	EPA 624

WELL MONITORING DATA SHEET

Project #: 090121-01	Client: VVWRA
Sampler: ①	Start Date: 01-21-09
Well I.D.: SP-4	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 147.15	Depth to Water: 110.64
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Sampling Method:

Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other: <u>2" red flow</u>	Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>TV Dmg</u>
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Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

23.7 (Gals.) X 3 = 71.1 Gals.
 I Case Volume Specified Volumes Calculated Volume

Time	Temp. (° or °C)	pH	Conductivity (mS or μ S)	Turbidity (NTU)	Gals. Removed	Observations
1419	72.3	7.6	657	79	24	
1424	72.6	7.4	651	103	47.5	
1428	73.1	7.4	650	264	71.5	
						80% = 117.94

Did well dewater? Yes No Gallons actually evacuated: 71.5

Sampling Time: 1433 Sampling Date: 01-21-09

Sample I.D.: SP-4 DTW = 114.01 Laboratory: on site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.O.W

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	ORP (if req'd):	Pre-purge:	mV	Post-purge:

WELL GAUGING DATA

Project # 090121-CD1 Date 01-21-09 - 01-22-09 Client VVWRA

Site 20111 Shay Rd. Victorville CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>FOC</u>	Notes
OW-4	0758	6					25.72	44.35		
OW-6	1045	6					4.10	29.25		
SP-1	1258	4					28.76	70.66		
SP-2	1332	4					30.76	69.94		
SP-3	0722	4					40.86	77.70		
SP-4	1410	4					110.64	147.15		
NW-2	0840	6					7.93	61.05		
NW-3	0944	6					5.46	57.53		
NZ-91	0942	4					66.04	73.45		
NZ-119	0845	4					166.85	171.70		
NZ-123	1030	4					48.05	50.05	↓	

WELL MONITORING DATA SHEET

Project #: <u>M0121-01</u>	Client: <u>VVWRA</u>
Sampler: <u>0</u>	Start Date: <u>01-22-09</u>
Well I.D.: <u>0W-4</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: <u>44.35</u>	Depth to Water: <u>25.72</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Sampling Method: <input type="checkbox"/> Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input checked="" type="checkbox"/> Other: <u>2" modified</u>	<input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing <input checked="" type="checkbox"/> Other: <u>1 1/2" m</u>
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$$\frac{27.7 \text{ (Gals.)} \times 3}{1 \text{ Case Volume Specified Volumes}} = \frac{82.2 \text{ Gals.}}{\text{Calculated Volume}}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F) or °C	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
0806	68.4	8.0	697	2	27.5	
0811	68.0	8.0	697	3	55	
0816	69.1	8.0	697	2	82.5	
						50% = 29.4k

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: <u>82.5</u>	
Sampling Time: <u>0820</u>	Sampling Date: <u>01-22-09</u>	
Sample I.D.: <u>0W-4</u> DTW = <u>25.91</u>	Laboratory: <u>on site</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See S.a.w.</u>	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____	
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: _____	
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg
ORP (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>0121-21</u>	Client: <u>VVWRA</u>
Sampler: <u>C</u>	Start Date: <u>01-22-09</u>
Well I.D.: <u>OW-6</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: <u>29.25</u>	Depth to Water: <u>4.10</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Sampling Method: Waterra Peristaltic Extraction Pump Other: 2" Red Flow

Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: Tubing

37.0 (Gals.) X 3 = 111 Gals.
 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or μ S)	Turbidity (NTU)	Gals. Removed	Observations
1052	66.0	7.6	633	2	37	
1057	67.4	7.5	629	2	74	
1101	67.4	7.5	629	1	111	
						80% = 9.13

Did well dewater? Yes No Gallons actually evacuated: 111

Sampling Time: 1105 Sampling Date: 01-22-09

Sample I.D.: OW-6 DTW = 6.12 Laboratory: on site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

Equipment Blank I.D.: EB-2 @ 1115 Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	ORP (if req'd):	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090121-CD1</u>	Client: <u>VVWRA</u>
Sampler: <u>①</u>	Start Date: <u>01-21-09</u>
Well I.D.: <u>SP-1</u>	Well Diameter: 2 3 <u>④</u> 6 8 <u> </u>
Total Well Depth: <u>70.66</u>	Depth to Water: <u>28.76</u>
Before: <u> </u> After: <u> </u>	Before: <u> </u> After: <u> </u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
Referenced to: <u>PVC</u> Grade <u> </u>	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>

Purge Method: Bailer Sampling Method: Bailer
Disposable Bailer Water Disposable Bailer
Positive Air Displacement Peristaltic Extraction Port
Electric Submersible Extraction Pump Dedicated Tubing
Other: 2" Rickflow Other: Tubing

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

27.2 (Gals.) X 3 = 81.6 Gals.
 I Case Volume Specified Volumes Calculated Volume

Time	Temp. (°F or °C)	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
<u>1306</u>	<u>70.7</u>	<u>7.3</u>	<u>679</u>	<u>10</u>	<u>27.5</u>	
<u>1311</u>	<u>71.9</u>	<u>7.3</u>	<u>686</u>	<u>5</u>	<u>55</u>	
<u>1315</u>	<u>72.4</u>	<u>7.2</u>	<u>683</u>	<u>3</u>	<u>82</u>	
						<u>80% = 37.14</u>

Did well dewater? Yes No Gallons actually evacuated: 82

Sampling Time: 1320 DW = 30.76 Sampling Date: 01-21-09

Sample I.D.: SP-1 DT Laboratory: on site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.O.W

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090121-001	Client: VVWVRA
Sampler: @	Start Date: 01-21-09
Well I.D.: SP-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 69.94	Depth to Water: 30.76
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Sampling Method: Bailer

Bailer	Waterra	Disposable Bailer
Disposable Bailer	Peristaltic	Extraction Port
Positive Air Displacement	Extraction Pump	Dedicated Tubing
Electric Submersible	<u>Other: 2" Sediment</u>	Other: <u>TUBING</u>

$$27.3 \text{ (Gals.)} \times 3 = 81.9 \text{ Gals.}$$
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or <u>µS</u>)	Turbidity (NTU)	Gals. Removed	Observations
1344	76.3	7.6	744	31	27.5	
1346	77.8	7.4	735	20	55	
1350	77.7	7.4	731	9	82	
						80% = 38.59

Did well dewater? Yes No Gallons actually evacuated: 82

Sampling Time: 1355 DTW = 31.6 Sampling Date: 01-21-09

Sample I.D.: SP-2 Laboratory: on site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S&W

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	ORP (if req'd):	Pre-purge:	mV	Post-purge:

WELL MONITORING DATA SHEET

Project #: <u>09021-01</u>	Client: <u>VVWRA</u>
Sampler: <u>CD</u>	Start Date: <u>01-22-09</u>
Well I.D.: <u>SP-3</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>77.70</u>	Depth to Water: <u>40.86</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade _____	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible

Sampling Method:

- Waterra
- Peristaltic
- Extraction Pump
- Other: 2" red flow

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: Tubing

<u>24.0</u>	(Gals.) X	<u>3</u>	=	<u>72.0</u>	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (<u>F</u> or °C)	pH	Conductivity (mS or <u>µS</u>)	Turbidity (NTU)	Gals. Removed	Observations
<u>0730</u>	<u>61.5</u>	<u>7.0</u>	<u>616</u>	<u>9</u>	<u>24</u>	
<u>0734</u>	<u>64.5</u>	<u>6.7</u>	<u>610</u>	<u>7</u>	<u>48</u>	
<u>0738</u>	<u>64.1</u>	<u>6.8</u>	<u>608</u>	<u>5</u>	<u>72</u>	
						<u>48.22 = 80% recovery</u>

Did well dewater? Yes No Gallons actually evacuated: 72

Sampling Time: 0743 DTW = 41.15 Sampling Date: 01-22-09

Sample I.D.: SP-3 Laboratory: On Site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.A.W.

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ m
ORP (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>01021-01</u>	Client: <u>VVWRA</u>
Sampler: <u>Ⓢ</u>	Start Date: <u>01-22-09</u>
Well I.D.: <u>NW-2</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: <u>61.05</u>	Depth to Water: <u>7.93</u>
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other: 2" red flow

Sampling Method:

Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: Tubing

<u>78.1</u> (Gals.) X	<u>3</u>	<u>=</u>	<u>234.3</u> Gals.
I Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or μS)	Turbidity (NTU)	Gals. Removed	Observations
<u>0854</u>	<u>66.0</u>	<u>7.9</u>	<u>695</u>	<u>8</u>	<u>78.5</u>	
<u>0905</u>	<u>67.2</u>	<u>7.7</u>	<u>694</u>	<u>3</u>	<u>156.5</u>	
<u>0915</u>	<u>67.4</u>	<u>7.7</u>	<u>695</u>	<u>1</u>	<u>234.5</u>	
						<u>80% = 11.55</u>

Did well dewater? Yes <u>NO</u>	Gallons actually evacuated: <u>234.5</u>
Sampling Time: <u>0918</u>	Sampling Date: <u>01-22-09</u>
Sample I.D.: <u>NW-2</u> <u>DHW = 8.14</u>	Laboratory: <u>On Site</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Other: <u>See S.O.W</u>	
Equipment Blank I.D.: @ Time Duplicate I.D.:	
Analyzed for: TPH-G BTEX MTBE TPH-D Other:	
D.O. (if req'd):	Pre-purge: mg/L Post-purge: mg/L
ORP (if req'd):	Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 090121-201	Client: VWWRA
Sampler: CD	Start Date: 01-22-09
Well I.D.: NW-3	Well Diameter: 2 3 4 6 8
Total Well Depth: 57.53	Depth to Water: 5.46
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing

Waterra
Peristaltic
Extraction Pump
Other: 2" Red/Flow

Other: 100149

76.6 (Gals.) X 3 = 229.8 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
0959	60.3	7.3	1047	11	77	
1009	61.5	7.3	997	3	153.9	
1019	61.9	7.3	973	1	230	
						80% = 15.87

Did well dewater? Yes No Gallons actually evacuated: 230

Sampling Time: 1023 Sampling Date: 01-22-09

Sample I.D.: NW-3 DTW = 5.58 Laboratory: on site

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.O.W

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mV

ORP (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 090121-01	Client: VVNDRA
Sampler: D	Start Date: 01-21-09
Well I.D.: NZ-91	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 73.45	Depth to Water: 66.01
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Sampling Method: Bailer

Bailer Waterra Disposable Bailer
 Disposable Bailer Peristaltic Extraction Port
 Positive Air Displacement Extraction Pump Dedicated Tubing
 Electric Submersible Other: 2" Grandpas Other: Tubing

$$4.8 \text{ (Gals.)} \times 1.5 = 14.4 \text{ Gals.}$$
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or μ S)	Turbidity (NTU)	Gals. Removed	Observations
0951	65.8	7.8	512	62	5	
Well dewatered @ 6 gal						
						67.52 = 80% Recharge
1015	66.2	7.8	509	84	—	DTW = 67.5a

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 1015 Sampling Date: 01-21-09

Sample I.D.: NZ-91 DTW: 67.5a Laboratory: ON SITE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See Saw

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	ORP (if req'd):	Pre-purge:	mV	Post-purge:

WELL MONITORING DATA SHEET

Project #: <u>090121-CD1</u>	Client: <u>VVWRA</u>
Sampler: <u>CD</u>	Start Date: <u>01-21-09</u>
Well I.D.: <u>NZ-119</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u> </u>
Total Well Depth: <u>171.70</u>	Depth to Water: <u>166.85</u>
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- 2" Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: Tubing

<u>3.2</u> (Gals.) X <u>3</u>	=	<u>9.6</u> Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
<u>0857</u>	<u>67.5</u>	<u>7.9</u>	<u>482</u>	<u>59</u>	<u>3.5</u>	
—————		<u>Well</u>	<u>dewatered</u>	<u>@ 5 gpm</u>	—————	
						<u>80% Recharge = 167.82</u>
<u>1215</u>	<u>66.7</u>	<u>8.4</u>	<u>471</u>	<u>> 1,000</u>	—————	<u>DTW = 167.80</u>

Did well dewater? Yes No Gallons actually evacuated: 5

Sampling Time: 0857 1215 Sampling Date: 01-21-09

Sample I.D.: NZ-119 Laboratory: VVWRA

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.A.W.

Equipment Blank I.D.: EB-1 @ 1230 Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	m
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090121-01	Client: VVWRA
Sampler: 0	Start Date: 01-21-09
Well I.D.: N2-123	Well Diameter: 2 3 4 6 8
Total Well Depth: 50.05	Depth to Water: 48.05
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer Sampling Method: Disposable Bailer

Bailer Watera
 Disposable Bailer Peristaltic
 Positive Air Displacement Extraction Pump
 Electric Submersible Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

$1.3 \text{ (Gals.)} \times 3 = 3.9 \text{ Gals.}$
 I Case Volume Specified Volumes Calculated Volume

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
1038	67.7	7.3	932	376	1.5	
1042	69.4	7.2	926	415	3	
1050	69.3	7.2	919	192	4	80% = 48.45
						DN = 48.40

Did well dewater? Yes No Gallons actually evacuated: 4

Sampling Time: 1108 Sampling Date: 01-21-09

Sample I.D.: N2-123 Laboratory: ON SITE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See S.A.W

Equipment Blank I.D.: @ Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

ORP (if req'd): Pre-purge: mV Post-purge: mV

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client VVWWRA Date 01-21-09

Site Address 20111 Shay Rd. - Victorville

Job Number 090121-CD1 Technician Chris Davis

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12" or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12" or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
OW-4	X									
OW-6	X									
SP-1	X									
SP-2	X									
SP-3	X									
SP-4	X									
NW-2	X									
NW-3	X									
NZ-91	X									
NZ-119	X									
NZ-123	X									

NOTES: _____

WELL GAUGING DATA

Project # 090217-SG1 Date 02/17/09 Client VVWVRA

Site 20111 Shay Rd. Victorville, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
OW-1	0835	6					19.95	39.85	↓	
NW-1	1305	6				17.98	47.18			
LW-1	0940	4				54.00	104.14			
LW-2	1636	4				52.98	100.10			
LW-3	1216	4				15.78	63.18			
LW-4	1125	4				54.41	99.35	↓		

WELL MONITORING DATA SHEET

Project #: 090217-561	Client: VVWWR A
Sampler: SG	Date: 02/17/09
Well I.D.: OW-1	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 39.85	Depth to Water (DTW): 19.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.93	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

WATERRA
 Peristaltic
 Extraction Pump
 Other: **2" RediFlo**

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other:

36PM

29.3 (Gals.) X 3 = 87.9 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0847	65.76	7.6	997	12	30	
0857	65.78	7.6	983	11	60	
0906	65.75	7.6	979	6	88	

Did well dewater? Yes No Gallons actually evacuated: **88**

Sampling Date: 02/17/09 Sampling Time: 0915 Depth to Water: 20.90

Sample I.D.: OW-1 Laboratory: On Site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) **Other: See S.O.W**

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090217-561</u>	Client: <u>VVWWRRA</u>
Sampler: <u>SG</u>	Date: <u>02/17/09</u>
Well I.D.: <u>NW-1</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>47.18</u>	Depth to Water (DTW): <u>17.98</u>
Depth to Free Product: <u>---</u>	Thickness of Free Product (feet): <u>---</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>23.92</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" Red. Fla. Pump Dedicated Tubing

1307 @ 40PM

42.9 (Gals.) X 3 = 128.7 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	<u>6"</u>	<u>1.47</u>
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1318</u>	<u>68.40</u>	<u>7.6</u>	<u>638</u>	<u>29</u>	<u>43</u>	
<u>1329</u>	<u>68.55</u>	<u>7.6</u>	<u>643</u>	<u>34</u>	<u>86</u>	
<u>1340</u>	<u>68.58</u>	<u>7.6</u>	<u>643</u>	<u>27</u>	<u>129</u>	

Did well dewater? Yes No Gallons actually evacuated: 129

Sampling Date: 02/17/09 Sampling Time: 1340 Depth to Water: 19.50

Sample I.D.: NW-1 Laboratory: Kiff CalScience Other ON SITE

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:		mg/L
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O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:		mV
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WELL MONITORING DATA SHEET

Project #: 090217-561	Client: VVWW RA
Sampler: SG	Date: 02/17/09
Well I.D.: CW-1	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 104.14'	Depth to Water (DTW): 54.00
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 64.03	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waters
 Peristaltic
 Extraction Pump
Other 2" Galvanneal

Sampling Method: Bailer
~~Disposable Bailer~~
 Extraction Port
 Dedicated Tubing

Other: _____

4 GPM	3	= 97.8	Gals.
I Case Volume	Specified Volumes	Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	<u>4"</u>	<u>0.65</u>
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0956	71.24	8.2	725	39	33	
1004	71.26	8.2	724	8	66	
1012	71.26	8.2	727	6	99	

Did well dewater? Yes No Gallons actually evacuated: 99

Sampling Date: 02/17/09 Sampling Time: 1020 Depth to Water: 54.18

Sample I.D.: CW-1 Laboratory: Kiff CalScience Other ON Site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other See S.O.W

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:

WELL MONITORING DATA SHEET

Project #: 090217-561	Client: VVWWRRA
Sampler: <u>SG</u>	Date: 02/17/09
Well I.D.: LW-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 100.10	Depth to Water (DTW): 52.98
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 62.40	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" Red Flo Dedicated Tubing

46PM

$$\frac{30.6 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{91.8}{\text{Calculated Volume}} \text{ Gals.}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	<u>4"</u>	<u>0.63</u>
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1049	71.08	7.9	756	4	31	
1057	71.09	7.9	755	4	62	
1105	71.10	7.9	756	5	92	

Did well dewater? Yes No Gallons actually evacuated: 92

Sampling Date: 02/17/09 Sampling Time: 1115 Depth to Water: 53.05

Sample I.D.: LW-2 Laboratory: Kiff CalScience Other On Site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other See S.O.W

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: <u>090217-SG1</u>	Client: <u>VVWVRA</u>
Sampler: <u>SG</u>	Date: <u>02/17/09</u>
Well I.D.: <u>LW-3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth (TD): <u>63.18</u>	Depth to Water (DTW): <u>15.78</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>25.26</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Watterra
 Peristaltic
 Extraction Pump
Other 2" Redi-Flow Pump

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

1219 @ 36PM

$30.8 \text{ (Gals.)} \times 3 = 92.4 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td><u>4"</u></td> <td><u>0.65</u></td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	<u>4"</u>	<u>0.65</u>	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	<u>4"</u>	<u>0.65</u>														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1229	71.43	7.8	741	16	31	
1239	71.38	7.8	750	16	62	
1249	71.36	7.8	754	12	92.5	

Did well dewater? Yes No Gallons actually evacuated: 92.5

Sampling Date: 02/17/09 Sampling Time: 1300 Depth to Water: 15.94

Sample I.D.: LW-3 Laboratory: Kiff CalScience Other On Site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 090217-SG1	Client: 11VWV RA
Sampler: SG	Date: 02/17/09
Well I.D.: LW-4	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 99.35	Depth to Water (DTW): 54.41
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 63.40	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" Rediflo Dedicated Tubing

3 GPM

29.2 (Gals.) X	3	=	87.6	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1138	70.76	7.7	622	5	29.5	
1148	70.80	7.7	622	4	59	
1157	70.75	7.7	621	5	88	

Did well dewater? Yes No Gallons actually evacuated: 88

Sampling Date: 02/17/09 Sampling Time: 1210 Depth to Water: 54.68

Sample I.D.: LW-4 Laboratory: Kiff CalScience Other ON Site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL GAUGING DATA

Project # 090526-01 Date 08-26-09 Client VVWRA

Site 20111 Shan Rd - Victorville

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
NZ-119	0900	4					167.43	171.90		
NZ-91	0949	4					67.05	73.35		
NZ-123	1023	4					48.15	50.05		
SP-1	1250	4					29.31	70.60		
SP-2	1315	4					31.67	70.05		
SP-3	1350	4					41.78	27.75		
NW-3	1500	6					5.57	57.52		
LW-4	0740	4					54.19	99.65		
NW-2	0725	6					7.78	61.05		
NW-1	0840	6					18.25	47.15		
OW-1	0930	6					19.50	38.86		
OW-4	1015	6					26.22	44.31		
OW-6	1130	6					4.20	29.30		
LW-3	1200	4					15.65	63.15		
LW-2	1230	4					52.90	100.00		
LW-1	1318	4					54.25	103.83		
SP-4	1415	4					111.32	147.10	↓	

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>CD</u>	Date: <u>08-27-09</u>
Well I.D.: <u>LW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>103.83</u>	Depth to Water (DTW): <u>54.25</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>64.16</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other: 2" Corros

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: Tubing

32.3 (Gals.) X 3 = 96.9 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1338	<u>23.3</u>	<u>7.6</u>	<u>719.8</u>	<u>6</u>	<u>32.5</u>	
1343	<u>22.7</u>	<u>7.5</u>	<u>720.9</u>	<u>5</u>	<u>65.0</u>	
1347	<u>22.7</u>	<u>7.5</u>	<u>717.7</u>	<u>3</u>	<u>697.0</u>	

Did well dewater? Yes No Gallons actually evacuated: 97

Sampling Date: 08-27-09 Sampling Time: 1350 Depth to Water: 54.50

Sample I.D.: LW-1 Laboratory: Kiff CalScience Other: BAB

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SOW

EB I.D. (if applicable): Eqw. Pment @ Blank Sample Time: 1405 Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See C.P.L.

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>Q</u>	Date: <u>08-27-09</u>
Well I.D.: <u>LW-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth (TD): <u>100.00</u>	Depth to Water (DTW): <u>52.90</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>62.32</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other: 2 1/2" Boreholes Other: Dedicated Tubing

$$30.6 \text{ (Gals.)} \times 3 = 91.8 \text{ Gals.}$$
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1243	23.0	7.4	724.6	4	31	
1248	22.6	7.4	724.8	2	61.5	
1253	22.8	7.4	722.7	1	92	

Did well dewater? Yes No Gallons actually evacuated: 92

Sampling Date: 08-27-09 Sampling Time: 1255 Depth to Water: 54.13

Sample I.D.: LW-2 Laboratory: Kiff CalScience Other: Bob

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 1 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9A1922-01	3600 NZ-91 Grab Wastewater Semi-Annual	Liquid	01/21/09 10:15	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-02	3601 NZ-119 Grab Wastewater Semi-Annual	Liquid	01/21/09 12:15	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-03	3602 NZ-123 Grab Wastewater Semi-Annual	Liquid	01/21/09 11:08	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-04	3603 Equipment Blank Grab Wastewater Semi-Annual	Liquid	01/21/09 12:30	Chris Davis	01/22/09 14:35	Courier (J. Mendez)

mailing

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location

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 Riverside, CA 92507-0704

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 2 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3600 NZ-91 Grab Semi-Annual	Liquid	01/21/09 10:15	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	55	1.0	mg/L	EPA 200.7	02/02/09 15:56	lmt	
Anions							
Chloride	14	1.0	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Sulfate	53	0.50	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Nitrate as N	3.8	0.20	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.08	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:42	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 10:31	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Surrogate: 1,2-Dichloroethane-d4	115	% 50-150		EPA 524.2	01/23/09 08:42	jes	
Surrogate: Bromofluorobenzene	112	% 50-150		EPA 524.2	01/23/09 08:42	jes	
Surrogate: Toluene-d8	97.4	% 50-150		EPA 524.2	01/23/09 08:42	jes	

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 3 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Work Order Number: A9A1922

Report Date: 03-Feb-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3601 NZ-119 Grab Semi-Annual	Liquid	01/21/09 12:15	01/22/09 14:35

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium	64	5.0	mg/L	EPA 200.7	02/02/09 15:58	lmt	
Anions							
Chloride	3.6	1.0	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Sulfate	130	0.50	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Nitrate as N	0.84	0.20	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	3.5	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.07	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:44	sll	
Kjeldahl Nitrogen	0.48	0.10	mg/L	EPA 351.2	01/28/09 10:34	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Surrogate: 1,2-Dichloroethane-d4	115	% 50-150		EPA 524.2	01/23/09 11:34	jes	
Surrogate: Bromofluorobenzene	108	% 50-150		EPA 524.2	01/23/09 11:34	jes	
Surrogate: Toluene-d8	96.5	% 50-150		EPA 524.2	01/23/09 11:34	jes	

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CA ELAP no. 1156
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 4 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3602 NZ-123 Grab Semi-Annual	Liquid	01/21/09 11:08	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	83	1.0	mg/L	EPA 200.7	02/02/09 15:59	lmt	
Anions							
Chloride	98	1.0	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Sulfate	130	0.50	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Nitrate as N	5.6	0.20	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	3.5	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.09	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:47	sll	
Kjeldahl Nitrogen	1.3	0.10	mg/L	EPA 351.2	01/28/09 10:36	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Surrogate: 1,2-Dichloroethane-d4	116	% 50-150		EPA 524.2	01/23/09 12:07	jes	
Surrogate: Bromofluorobenzene	111	% 50-150		EPA 524.2	01/23/09 12:07	jes	
Surrogate: Toluene-d8	96.9	% 50-150		EPA 524.2	01/23/09 12:07	jes	

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 5 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3603 Equipment Blank Grab Semi-Annual	Liquid	01/21/09 12:30	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Surrogate: 1,2-Dichloroethane-d4	116	% 50-150		EPA 524.2	01/23/09 12:40	jes	
Surrogate: Bromofluorobenzene	108	% 50-150		EPA 524.2	01/23/09 12:40	jes	
Surrogate: Toluene-d8	96.5	% 50-150		EPA 524.2	01/23/09 12:40	jes	

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 6 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Notes and Definitions

- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

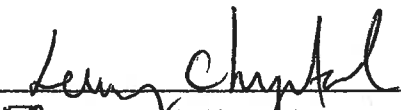
* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Lorenzo Rodriguez
 Project Manager

Allison Mackenzie
 General Manager


 Lawrence J. Chrystal
 Laboratory Director

cc:

ESB_Short_Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Semi-annual Groundwater Monitoring Wells			Laboratory Analyses Requested										Total # of Containers	Sample Preservation Methods					Sample Matrix (W, DW, GW, SG)										
VWVRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type		MBAS	TKN	Nitrite - N	Nitrate - N	Chloride	Sulfate	THM's (EPA 5242)	T.O.C	T.P.H (EPA 418.1)	Sodium	Refrigeration	H ₂ SO ₄ pH > 2	HNO ₃ pH > 2	Na ₂ S ₂ O ₃	NaOH pH > 12	HCl								
				Grab	Composite																								
3000	NZ-91	1/21/09	1015	X		X	X	X	X	X	X	X	X	X	X		1	3	1	2			7						GW
3001	NZ-119	1/21/09	1215	X		X	X	X	X	X	X	X	X	X	X		1	3	1	2			7						GW
3002	NZ-123	1/21/09	1108	X		X	X	X	X	X	X	X	X	X	X		1	3	1	2			7						GW
3003	Equipment Blank	1/21/09	1230	X							X	X	X	X	X		2	2	2				7					DW	

Relinquished By (Sign): <i>Chris Davis</i> Print: Chris Davis Company: BTS	Date/Time: 1/21/09 1238	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VWVRA	Date/Time: 1-22-9 12:40
Relinquished By (Sign): <i>L. Mender</i> Print: L. Mender Company: D.F.	Date/Time: 1-22-9 2:35	Relinquished By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VWVRA	Date/Time: 1-22-9

Sample Condition Upon Receipt by Laboratory: Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temperature _____ °C	Laboratory Notes:
--	---------------------------

Received By (Sign): <i>L. Mender</i> Print: L. Mender Company: D.F.	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VWVRA
--	---

Received By (Sign): <i>L. Mender</i> Print: L. Mender Company: D.F.	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VWVRA
--	---

Print: _____ Company: _____

Print: _____ Company: _____

Print: _____ Company: _____

Print: _____ Company: _____



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 1 of 5
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 04-Feb-2009

Work Order Number: A9A1925

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9A1925-01	3604 SP-1 Grab Wastewater Semi-Annual	Liquid	01/21/09 13:20	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1925-02	3605 SP-2 Grab Wastewater Semi-Annual	Liquid	01/21/09 13:55	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1925-03	3606 SP-4 Grab Wastewater Semi-Annual	Liquid	01/21/09 14:33	Chris Davis	01/22/09 14:35	Courier (J. Mendez)



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 2 of 5
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 04-Feb-2009

Work Order Number: A9A1925

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1925-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3604 SP-1 Grab Semi-Annual	Liquid	01/21/09 13:20	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	95	1.0	mg/L	EPA 200.7	02/02/09 15:39	lmt	
Anions							
Chloride	61	1.0	mg/L	EPA 300.0	01/23/09 06:08	SBD	
Sulfate	41	0.50	mg/L	EPA 300.0	01/23/09 06:08	SBD	
Nitrate as N	9.5	0.20	mg/L	EPA 300.0	01/23/09 06:08	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	0.74	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.05	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:49	sll	
Kjeldahl Nitrogen	0.17	0.10	mg/L	EPA 351.2	02/02/09 16:35	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	3.7	0.50	ug/L	EPA 524.2	01/23/09 13:13	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 13:13	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 13:13	jes	
Chloroform	3.4	0.50	ug/L	EPA 524.2	01/23/09 13:13	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 13:13	jes	
Surrogate: 1,2-Dichloroethane-d4	114	% 50-150		EPA 524.2	01/23/09 13:13	jes	
Surrogate: Bromofluorobenzene	114	% 50-150		EPA 524.2	01/23/09 13:13	jes	
Surrogate: Toluene-d8	96.3	% 50-150		EPA 524.2	01/23/09 13:13	jes	

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Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 3 of 5
Project Name: VVWRA-Lab
Project Number: [none]

Work Order Number: A9A1925

Report Date: 04-Feb-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1925-02

Sample Description: 3605 SP-2 Grab Semi-Annual
Matrix: Liquid
Sampled Date/Time: 01/21/09 13:55
Received Date/Time: 01/22/09 14:35

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Sodium), Anions (Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons), Surfactants (MBAS), Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen), and Volatile Organic Compounds by EPA 524.2 (Total Trihalomethanes, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, and various surrogates).

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CA ELAP no. 1156
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 4 of 5
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 04-Feb-2009

Work Order Number: A9A1925

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1925-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3606 SP-4 Grab Semi-Annual	Liquid	01/21/09 14:33	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	84	1.0	mg/L	EPA 200.7	02/02/09 16:23	lmt	
Anions							
Chloride	58	1.0	mg/L	EPA 300.0	01/23/09 06:28	SBD	
Sulfate	39	0.50	mg/L	EPA 300.0	01/23/09 06:28	SBD	
Nitrate as N	9.4	0.20	mg/L	EPA 300.0	01/23/09 06:28	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	3.5	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:57	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 10:59	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	4.0	0.50	ug/L	EPA 524.2	01/23/09 14:20	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 14:20	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 14:20	jes	
Chloroform	3.8	0.50	ug/L	EPA 524.2	01/23/09 14:20	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 14:20	jes	
Surrogate: 1,2-Dichloroethane-d4	114	% 50-150		EPA 524.2	01/23/09 14:20	jes	
Surrogate: Bromofluorobenzene	112	% 50-150		EPA 524.2	01/23/09 14:20	jes	
Surrogate: Toluene-d8	96.6	% 50-150		EPA 524.2	01/23/09 14:20	jes	

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 5 of 5
Project Name: VVWRA-Lab
Project Number: [none]

Work Order Number: A9A1925

Report Date: 04-Feb-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Notes and Definitions

- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

- Lorenzo Rodriguez
Project Manager
- Allison Mackenzie
General Manager
- Lawrence J. Chrystal
Laboratory Director

cc:

ESB_Short_Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Semi-annual Groundwater Monitoring Wells

Project Contact: Gina Cloutier (760) 246-8638 ext. 216

Sampler Name: *Chris Davis*

Sampler Signature: *[Signature]*

VWVRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab	Composite	Laboratory Analyses Requested										Total # of Containers	Sample Preservation Methods					Sample Matrix (WW, DW, GW, SG)					
						MBAS	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Chloride	Sulfate	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)		Sodium	Refrigeration	H ₂ SO ₄ pH<2	HNO ₃ pH<2	Na ₂ S ₂ O ₃		NaOH pH>12	HCl			
36004	SP - 1	1/21/09	1320	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
36005	SP - 2	1/21/09	1355	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
36010	SP - 4	1/21/09	1433	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW

Relinquished By (Sign): <i>[Signature]</i> Print: <i>Chris Davis</i> Company: <i>RTS</i>	Date/Time: 1/21/09 1453	Received By (Sign): <i>[Signature]</i> Print: <i>Gina Cloutier</i> Company: <i>VVWWRA</i>	Relinquished By (Sign): <i>[Signature]</i> Print: <i>Gina Cloutier</i> Company: <i>VVWWRA</i>	Date/Time: 1-22-9 12:40	Received By (Sign): <i>[Signature]</i> Print: <i>J. Mender</i> Company: _____
Relinquished By (Sign): <i>[Signature]</i> Print: <i>J. Mender</i> Company: <i>DL</i>	Date/Time: 1-22-9 2:35	Received By (Sign): <i>[Signature]</i> Print: <i>Gina Cloutier</i> Company: <i>VVWWRA</i>	Relinquished By (Sign): <i>[Signature]</i> Print: _____ Company: _____	Date/Time:	Received By (Sign): <i>[Signature]</i> Print: _____ Company: _____

Sample Condition Upon Receipt by Laboratory:

Samples Received on Ice? Yes No

Samples Received Intact? Yes No

Temperature _____ °C

Laboratory Notes



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 8
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9A1927-01	3619 SP-3 Grab Wastewater Semi-Annual	Liquid	01/21/09 07:43	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1927-02	3620 NW-2 Grab Wastewater Semi-Annual	Liquid	01/21/09 09:10	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1927-03	3621 NW-3 Grab Wastewater Semi-Annual	Liquid	01/21/09 10:23	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1927-04	3622 OW-4 Grab Wastewater Semi-Annual	Liquid	01/21/09 08:20	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1927-05	3623 OW-6 Grab Wastewater Semi-Annual	Liquid	01/21/09 11:05	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1927-06	3624 Equipment Blank Grab Wastewater Semi-Annual	Liquid	01/21/09 11:15	Chris Davis	01/22/09 14:35	Courier (J. Mendez)



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 2 of 8
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9A1927-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3619 SP-3 Grab Semi-Annual	Liquid	01/21/09 07:43	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	85	1.0	mg/L	EPA 200.7	02/02/09 16:24	lmt	
Anions							
Chloride	61	1.0	mg/L	EPA 300.0	01/23/09 06:38	SBD	
Sulfate	43	0.50	mg/L	EPA 300.0	01/23/09 06:38	SBD	
Nitrate as N	10	0.20	mg/L	EPA 300.0	01/23/09 06:38	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	1.1	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.06	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:59	sil	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 11:01	sil	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	1.8	0.50	ug/L	EPA 524.2	01/24/09 16:21	JES	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 16:21	JES	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/24/09 16:21	JES	
Chloroform	1.5	0.50	ug/L	EPA 524.2	01/24/09 16:21	JES	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 16:21	JES	
Surrogate: 1,2-Dichloroethane-d4	88.6	% 50-150		EPA 524.2	01/24/09 16:21	JES	
Surrogate: Bromofluorobenzene	95.5	% 50-150		EPA 524.2	01/24/09 16:21	JES	
Surrogate: Toluene-d8	102	% 50-150		EPA 524.2	01/24/09 16:21	JES	

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 3 of 8
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1927-02

Sample Description: 3620 NW-2 Grab Semi-Annual
Matrix: Liquid
Sampled Date/Time: 01/21/09 09:10
Received Date/Time: 01/22/09 14:35

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Sodium), Anions (Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons), Surfactants (MBAS), Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen), and Volatile Organic Compounds by EPA 524.2 (Total Trihalomethanes, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, and various Surrogate compounds).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 8
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1927-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3621 NW-3 Grab Semi-Annual	Liquid	01/21/09 10:23	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	120	1.0	mg/L	EPA 200.7	02/02/09 16:27	lmt	
Anions							
Chloride	100	1.0	mg/L	EPA 300.0	01/23/09 06:59	SBD	
Sulfate	43	0.50	mg/L	EPA 300.0	01/23/09 06:59	SBD	
Nitrate as N	0.29	0.20	mg/L	EPA 300.0	01/23/09 06:59	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	2.8	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.08	0.05	mg/L	SM 5540C	01/22/09 21:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 11:03	sll	
Kjeldahl Nitrogen	0.41	0.10	mg/L	EPA 351.2	01/28/09 11:05	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/24/09 17:34	JES	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 17:34	JES	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/24/09 17:34	JES	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/24/09 17:34	JES	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 17:34	JES	
Surrogate: 1,2-Dichloroethane-d4	96.6	% 50-150		EPA 524.2	01/24/09 17:34	JES	
Surrogate: Bromofluorobenzene	94.4	% 50-150		EPA 524.2	01/24/09 17:34	JES	
Surrogate: Toluene-d8	96.8	% 50-150		EPA 524.2	01/24/09 17:34	JES	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 8
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1927-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3622 OW-4 Grab Semi-Annual	Liquid	01/21/09 08:20	01/22/09 14:35

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium	110	1.0	mg/L	EPA 200.7	02/02/09 16:28	lmt	
Anions							
Chloride	62	1.0	mg/L	EPA 300.0	01/23/09 07:09	SBD	
Sulfate	43	0.50	mg/L	EPA 300.0	01/23/09 07:09	SBD	
Nitrate as N	8.7	0.20	mg/L	EPA 300.0	01/23/09 07:09	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.06	0.05	mg/L	SM 5540C	01/22/09 21:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 11:05	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 11:08	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	2.9	0.50	ug/L	EPA 524.2	01/24/09 18:10	JES	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 18:10	JES	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/24/09 18:10	JES	
Chloroform	2.5	0.50	ug/L	EPA 524.2	01/24/09 18:10	JES	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 18:10	JES	
Surrogate: 1,2-Dichloroethane-d4	91.7	% 50-150		EPA 524.2	01/24/09 18:10	JES	
Surrogate: Bromofluorobenzene	96.0	% 50-150		EPA 524.2	01/24/09 18:10	JES	
Surrogate: Toluene-d8	97.0	% 50-150		EPA 524.2	01/24/09 18:10	JES	

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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 6 of 8
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1927-05

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3623 OW-6 Grab Semi-Annual	Liquid	01/21/09 11:05	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	77	1.0	mg/L	EPA 200.7	02/02/09 16:29	lmt	
Anions							
Chloride	36	1.0	mg/L	EPA 300.0	01/23/09 13:21	SBD	
Sulfate	85	0.50	mg/L	EPA 300.0	01/23/09 13:21	SBD	
Nitrate as N	2.2	0.20	mg/L	EPA 300.0	01/23/09 13:21	SBD	N_HTa
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.05	0.05	mg/L	SM 5540C	01/22/09 21:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 11:07	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 11:10	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/24/09 18:46	JES	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 18:46	JES	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/24/09 18:46	JES	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/24/09 18:46	JES	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 18:46	JES	
Surrogate: 1,2-Dichloroethane-d4	95.6	% 50-150		EPA 524.2	01/24/09 18:46	JES	
Surrogate: Bromofluorobenzene	98.3	% 50-150		EPA 524.2	01/24/09 18:46	JES	
Surrogate: Toluene-d8	99.3	% 50-150		EPA 524.2	01/24/09 18:46	JES	

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 CA ELAP no. 1156
 EPA no. CA00102



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 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 7 of 8
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9A1927-06

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3624 Equipment Blank Grab Semi-Annual	Liquid	01/21/09 11:15	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/29/09 03:41	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/24/09 19:23	JES	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 19:23	JES	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/24/09 19:23	JES	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/24/09 19:23	JES	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/24/09 19:23	JES	
Surrogate: 1,2-Dichloroethane-d4	103	% 50-150		EPA 524.2	01/24/09 19:23	JES	
Surrogate: Bromofluorobenzene	91.3	% 50-150		EPA 524.2	01/24/09 19:23	JES	
Surrogate: Toluene-d8	93.6	% 50-150		EPA 524.2	01/24/09 19:23	JES	

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 8 of 8
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1927

Received on Ice (Y/N): Yes Temp: 8 °C

Notes and Definitions

- N_HTa Sample analyzed outside of the EPA recommended holding time.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Lorenzo Rodriguez Project Manager
 Allison Mackenzie General Manager
 Lawrence J. Chrystal Laboratory Director

cc:

ESB_Short_Report

42
21
3
14
7-2/21

LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California
 Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com



Project Name: Semi-annual Groundwater Monitoring Wells			Laboratory Analyses Requested										Total # of Containers	Sample Preservation Methods					Sample Matrix (W, DW, GW, SG)		
VWVRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type		TKN	Nitrite - N	Nitrate - N	Chloride	Sulfate	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)	Sodium	Refrigeration	H ₂ SO ₄ pH <	HNO ₃ pH >	NaOH pH >12	HCl		
				Grab	Composite																
3019	SP - 3	1-21-09	0743	X		X	X	X	X	X	X	X	X	X	1	3	1	2		GW	
3020	NW - 2	1-21-09	0710	X		X	X	X	X	X	X	X	X	X	1	3	1	2		GW	
3021	NW - 3	1-21-09	1023	X		X	X	X	X	X	X	X	X	X	1	3	1	2		GW	
3022	OW - 4	1-21-09	0820	X		X	X	X	X	X	X	X	X	X	1	3	1	2		GW	
3023	OW - 6	1-21-09	1105	X		X	X	X	X	X	X	X	X	X	1	3	1	2		GW	
3024	Equipment Blank	1-21-09	1115	X						X	X	X	X		4	2	2			DW	
Relinquished By (Sign): <i>Chris Davis</i>		Date/Time: 1/22/09		Received By (Sign): <i>Gina Cloutier</i>		Date/Time: 1-22-9		Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 1-22-9		Received By (Sign): <i>Jim Mendez</i>		Date/Time: 1-22-9		Relinquished By (Sign): <i>J. Mendez</i>		Date/Time: 12:40		Received By (Sign): <i>J. Mendez</i>	
Print: <i>Chris Davis</i>		Company: <i>BT's</i>		Print: <i>Gina Cloutier</i>		Company: <i>VVWRA</i>		Print: <i>Gina Cloutier</i>		Company: <i>VVWRA</i>		Print: <i>J. Mendez</i>		Company: <i>D.E.</i>		Print: <i>J. Mendez</i>		Company: <i>D.E.</i>		Print: <i>J. Mendez</i>	
Relinquished By (Sign): <i>Jim Mendez</i>		Date/Time: 1-22-9		Received By (Sign): <i>Chris Davis</i>		Date/Time: 1-22-9		Relinquished By (Sign): <i>Chris Davis</i>		Date/Time: 1-22-9		Received By (Sign): <i>Chris Davis</i>		Date/Time: 1-22-9		Relinquished By (Sign): <i>Chris Davis</i>		Date/Time: 1-22-9		Received By (Sign): <i>Chris Davis</i>	
Print: <i>J. Mendez</i>		Company: <i>D.E.</i>		Print: <i>Chris Davis</i>		Company: <i>VVWRA</i>		Print: <i>Chris Davis</i>		Company: <i>VVWRA</i>		Print: <i>Chris Davis</i>		Company: <i>VVWRA</i>		Print: <i>Chris Davis</i>		Company: <i>VVWRA</i>		Print: <i>Chris Davis</i>	
Sample Condition Upon Receipt by Laboratory:																					
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										Temperature: <u>20</u> °C											
Samp Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																					
Laboratory Notes																					
Samples sent via courier to: E.S. Babcock Laboratories																					
Lab#: AGA 927 AB																					



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 1 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes . Temp: 11 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9B1754-01	3883 LW-1 Wastewater Semi-Annual GW MW	Liquid	02/17/09 10:20	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-02	3884 LW-2 Wastewater Semi-Annual GW MW	Liquid	02/17/09 11:15	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-03	3885 LW-3 Wastewater Semi-Annual GW MW	Liquid	02/17/09 13:00	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-04	3886 LW-4 Wastewater Semi-Annual GW MW	Liquid	02/17/09 12:10	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-05	3887 NW-1 Wastewater Semi-Annual GW MW	Liquid	02/17/09 13:40	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-06	3888 OW-1 Wastewater Semi-Annual GW MW	Liquid	02/17/09 09:15	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)
A9B1754-07	3889 Equipment Blank Wastewater Semi-Annual GW MW	Liquid	02/17/09 13:55	Sean Greenma	02/18/09 13:30	Courier (J. Mendez)

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NELAP no. 02101CA
CA ELAP no. 1156
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 2 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3883 LW-1 Semi-Annual GW MW	Liquid	02/17/09 10:20	02/18/09 13:30

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium	47	1.0	mg/L	EPA 200.7	02/24/09 15:47	lmt	
Anions							
Chloride	32	1.0	mg/L	EPA 300.0	02/19/09 01:01	SWC	
Sulfate	32	0.50	mg/L	EPA 300.0	02/19/09 01:01	SWC	
Nitrate as N	5.1	0.20	mg/L	EPA 300.0	02/19/09 21:48	SBD	N_HTC
Aggregate Organic Compounds							
Total Organic Carbon	6.7	0.70	mg/L	SM 5310B	02/26/09 19:58	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	02/25/09 16:47	tdm	
Surfactants							
MBAS	0.36	0.05	mg/L	SM 5540C	02/18/09 23:02	kam	
Nutrients							
Nitrite as N	0.25	0.10	mg/L	SM 4500NO2 B	02/18/09 22:40	ara	
Ammonia-Nitrogen	3.9	1.0	mg/L	SM4500NH3H	02/23/09 12:08	sl	
Kjeldahl Nitrogen	5.8	0.40	mg/L	EPA 351.2	02/24/09 13:40	sl	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	02/20/09 16:02	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	02/20/09 16:02	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	02/20/09 16:02	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	02/20/09 16:02	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	02/20/09 16:02	eec	
Surrogate: 1,2-Dichloroethane-d4	98.4	% 50-150		EPA 524.2	02/20/09 16:02	eec	
Surrogate: Bromofluorobenzene	98.7	% 50-150		EPA 524.2	02/20/09 16:02	eec	
Surrogate: Toluene-d8	101	% 50-150		EPA 524.2	02/20/09 16:02	eec	

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NELAP no. 02101CA
CA ELAP no. 1156
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 3 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3884 LW-2 Semi-Annual GW MW	Liquid	02/17/09 11:15	02/18/09 13:30

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	130	1.0	mg/L	EPA 200.7	02/24/09 15:49	lmt	
Anions							
Chloride	90	1.0	mg/L	EPA 300.0	02/19/09 01:11	SWC	
Sulfate	93	0.50	mg/L	EPA 300.0	02/19/09 01:11	SWC	
Nitrate as N	24	1.0	mg/L	EPA 300.0	02/19/09 21:58	SBD	N_HTh
Aggregate Organic Compounds							
Total Organic Carbon	ND	1.4	mg/L	SM 5310B	02/26/09 19:58	krv	N_RLm
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	02/25/09 16:47	tdm	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	02/18/09 23:02	kam	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	02/18/09 22:40	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	02/23/09 12:10	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	02/24/09 13:42	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	2.0	0.50	ug/L	EPA 524.2	02/20/09 17:14	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	02/20/09 17:14	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	02/20/09 17:14	eec	
Chloroform	1.9	0.50	ug/L	EPA 524.2	02/20/09 17:14	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	02/20/09 17:14	eec	
Surrogate: 1,2-Dichloroethane-d4	101	% 50-150		EPA 524.2	02/20/09 17:14	eec	
Surrogate: Bromofluorobenzene	96.3	% 50-150		EPA 524.2	02/20/09 17:14	eec	
Surrogate: Toluene-d8	101	% 50-150		EPA 524.2	02/20/09 17:14	eec	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3885 LW-3 Semi-Annual GW MW	Liquid	02/17/09 13:00	02/18/09 13:30

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	170	1.0	mg/L	EPA 200.7	02/24/09 15:53	lmt	
Anions							
Chloride	80	1.0	mg/L	EPA 300.0	02/19/09 01:22	SWC	
Sulfate	94	0.50	mg/L	EPA 300.0	02/19/09 01:22	SWC	
Nitrate as N	16	0.20	mg/L	EPA 300.0	02/19/09 22:07	SBD	N_HTC
Aggregate Organic Compounds							
Total Organic Carbon	1.3	0.70	mg/L	SM 5310B	02/26/09 19:58	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	02/25/09 16:47	tdm	
Surfactants							
MBAS	0.17	0.05	mg/L	SM 5540C	02/18/09 23:02	kam	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	02/18/09 22:40	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	02/23/09 12:12	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	02/24/09 13:44	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	0.67	0.50	ug/L	EPA 524.2	02/21/09 01:36	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 01:36	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	02/21/09 01:36	eec	
Chloroform	0.67	0.50	ug/L	EPA 524.2	02/21/09 01:36	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 01:36	eec	
Surrogate: 1,2-Dichloroethane-d4	94.1	% 50-150		EPA 524.2	02/21/09 01:36	eec	
Surrogate: Bromofluorobenzene	96.0	% 50-150		EPA 524.2	02/21/09 01:36	eec	
Surrogate: Toluene-d8	98.8	% 50-150		EPA 524.2	02/21/09 01:36	eec	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 9
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3886 LW-4 Semi-Annual GW MW	Liquid	02/17/09 12:10	02/18/09 13:30

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	90	1.0	mg/L	EPA 200.7	02/24/09 15:56	lmt	
Anions							
Chloride	46	1.0	mg/L	EPA 300.0	02/19/09 02:42	SWC	
Sulfate	93	0.50	mg/L	EPA 300.0	02/19/09 02:42	SWC	
Nitrate as N	9.3	0.20	mg/L	EPA 300.0	02/19/09 02:42	SWC	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	02/27/09 02:24	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	02/25/09 16:47	tdm	
Surfactants							
MBAS	0.11	0.05	mg/L	SM 5540C	02/18/09 23:02	kam	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	02/18/09 22:40	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	02/23/09 12:14	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	02/24/09 13:46	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	02/21/09 02:12	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 02:12	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	02/21/09 02:12	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	02/21/09 02:12	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 02:12	eec	
Surrogate: 1,2-Dichloroethane-d4	101	% 50-150		EPA 524.2	02/21/09 02:12	eec	
Surrogate: Bromofluorobenzene	95.8	% 50-150		EPA 524.2	02/21/09 02:12	eec	
Surrogate: Toluene-d8	100	% 50-150		EPA 524.2	02/21/09 02:12	eec	

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 6 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-05

Sample Description: 3887 NW-1 Semi-Annual GW MW
Matrix: Liquid
Sampled Date/Time: 02/17/09 13:40
Received Date/Time: 02/18/09 13:30

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Sodium), Anions (Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons), Surfactants (MBAS), Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen), and Volatile Organic Compounds by EPA 524.2 (Total Trihalomethanes, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, and various surrogates).

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Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 7 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-06

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3888 OW-1 Semi-Annual GW MW	Liquid	02/17/09 09:15	02/18/09 13:30

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	97	1.0	mg/L	EPA 200.7	02/25/09 14:19	lmt	
Anions							
Chloride	32	1.0	mg/L	EPA 300.0	02/19/09 03:02	SWC	
Sulfate	240	0.50	mg/L	EPA 300.0	02/19/09 03:02	SWC	
Nitrate as N	ND	0.20	mg/L	EPA 300.0	02/19/09 03:02	SWC	
Aggregate Organic Compounds							
Total Organic Carbon	1.7	0.70	mg/L	SM 5310B	02/27/09 02:24	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	02/25/09 16:47	tdm	
Surfactants							
MBAS	0.07	0.05	mg/L	SM 5540C	02/18/09 23:02	kam	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	02/18/09 22:40	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	02/23/09 12:18	sll	
Kjeldahl Nitrogen	0.23	0.10	mg/L	EPA 351.2	02/26/09 10:14	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	02/21/09 03:23	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 03:23	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	02/21/09 03:23	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	02/21/09 03:23	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	02/21/09 03:23	eec	
Surrogate: 1,2-Dichloroethane-d4	99.9	% 50-150		EPA 524.2	02/21/09 03:23	eec	
Surrogate: Bromofluorobenzene	92.6	% 50-150		EPA 524.2	02/21/09 03:23	eec	
Surrogate: Toluene-d8	99.7	% 50-150		EPA 524.2	02/21/09 03:23	eec	

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6100 Quail Valley Court
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NELAP no. 02101CA
CA/EELAP no. 1156
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est. 1906

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Hesperia, CA 92345

Analytical Report: Page 8 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

A9B1754-07

Sample Description: 3889 Equipment Blank Semi-Annual GW MW
Matrix: Liquid
Sampled Date/Time: 02/17/09 13:55
Received Date/Time: 02/18/09 13:30

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Aggregate Organic Compounds, Total Organic Carbon, Total Petroleum Hydrocarbons, Volatile Organic Compounds by EPA 524.2, and various surrogate compounds.

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NELAP no. 02101CA
CA ELAP no. 1156
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 9 of 9
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 02-Mar-2009

Work Order Number: A9B1754
Received on Ice (Y/N): Yes Temp: 11 °C

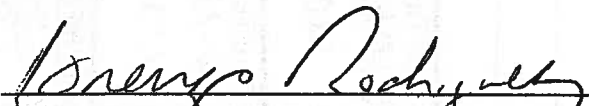
Notes and Definitions

- N_HTc Original sample was run within holding time. Sample was reanalyzed and confirmed the original results. Reanalysis was performed outside EPA recommended holding time due to QC failure in the original batch.
- N_HTh Original sample was run within holding time. Due to a high original result, the sample was diluted and reanalyzed outside of EPA recommended holding time .
- N_RLm Due to sample matrix, the reporting limit has been raised.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.



Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
Project Manager General Manager Laboratory Director

cc: ESB_Short_.Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California
 Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Semi-annual Groundwater Monitoring Wells			Laboratory Analyses Requested										Sample Preservation Methods				Sample Matrix (WW, DW, GW, SG)						
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Sample Type		Date/Time										Total # of Containers								
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab	MBAS	Ammonia-N	TKN	Nitrite-N	Nitrate-N	Chloride	Sulfate	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)	Sodium	Refrigeration	H ₂ SO ₄ pH Δ	HNO ₃ pH Δ	Na ₂ S ₂ O ₃	NaOH pH-12	HCl		
3883	LW - 1	2/17/09	1020	X	X	X	X	X	X	X	X	X	X	X	X	X	1	3	1	2			GW
3884	LW - 2	2/17/09	1115	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
3885	LW - 3	2/17/09	1300	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
3886	LW - 4	2/17/09	1210	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
3887	NW - 1	2/17/09	1340	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
3888	OW - 1	2/17/09	0915	X	X	X	X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW
3889	Equipment Blank	2/17/09	1355	X								X	X	X	X		4	2	2				DW
Reinquisitioned By (Sign): Sean Greenman		Date/Time: 2/17/09 1401		Received By (Sign): Gina Cloutier		Date/Time: 2-18-9		Reinquisitioned By (Sign): Gina Cloutier		Date/Time: 12.05		Received By (Sign): L. Mendez		Date/Time:		Total # of Containers: 7		Sample Matrix: GW					
Print: Sean Greenman		Company: Blake Tech Ser.		Print: Gina Cloutier		Company: VVWRA		Print: Gina Cloutier		Company: VVWRA		Print: L. Mendez		Company: D.F.		Total # of Containers: 7		Sample Matrix: GW					
Reinquisitioned By (Sign): L. Mendez		Date/Time: 2-19-8		Received By (Sign): LANNON TAYLOR		Date/Time: 1.30		Reinquisitioned By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Total # of Containers: 4		Sample Matrix: DW					
Print: L. Mendez		Company: D.F.		Print: LANNON TAYLOR		Company: VVWRA		Print: LANNON TAYLOR		Company: VVWRA		Print: LANNON TAYLOR		Company: VVWRA		Total # of Containers: 4		Sample Matrix: DW					
Sample Condition Upon Receipt by Laboratory:		Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Samples-Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Temperature: 11 °C		Laboratory Note:		Laboratory Note:		Laboratory Note:		Laboratory Note:		Total # of Containers: 4		Sample Matrix: DW					
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Samples-Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Temperature: 11 °C		Laboratory Note:		Laboratory Note:		Laboratory Note:		Laboratory Note:		Laboratory Note:		Total # of Containers: 4		Sample Matrix: DW					
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Samples-Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Temperature: 11 °C		Laboratory Note:		Laboratory Note:		Laboratory Note:		Laboratory Note:		Laboratory Note:		Total # of Containers: 4		Sample Matrix: DW					

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>Q</u>	Date: <u>08-27-09</u>
Well I.D.: <u>LW-3</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>63.15</u>	Depth to Water (DTW): <u>15.65</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PV2</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>25.15</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
Other 2" Grout

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: 12b.08

30.9 (Gals.) X 3 = 92.7 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1214</u>	<u>22.4</u>	<u>7.3</u>	<u>747.6</u>	<u>65</u>	<u>31</u>	
<u>1218</u>	<u>22.1</u>	<u>7.2</u>	<u>758.1</u>	<u>34</u>	<u>62</u>	
<u>1223</u>	<u>22.1</u>	<u>7.3</u>	<u>762.2</u>	<u>13</u>	<u>95</u>	

Did well dewater? Yes No Gallons actually evacuated: 93

Sampling Date: 08-27-09 Sampling Time: 1225 Depth to Water: 16.76

Sample I.D.: LW-3 Laboratory: Kiff CalScience Other Bab

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: X

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VWVRA</u>
Sampler: <u>Q</u>	Date: <u>08-27-09</u>
Well I.D.: <u>LW-4</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>99.65</u>	Depth to Water (DTW): <u>54.49</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PV2</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>63.52</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other: 2" Grout Dedicated Tubing

Other: Tubing

29.4 (Gals.) X 3 = 88.2 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0657	21.4	7.0	637.9	3	29.5	
0701	21.5	7.0	627.9	1	59	
0705	21.5	7.1	626.8	0	88.5	

Did well dewater? Yes No Gallons actually evacuated: 88.5

Sampling Date: 08-27-09 Sampling Time: 0710 Depth to Water: 55.16

Sample I.D.: LW-4 Laboratory: Kiff CalScience Other on site

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable): 6782 @ 0630

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See C.O.C.

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>WWRRA</u>
Sampler: <u>CD</u>	Date: <u>08-27-09</u>
Well I.D.: <u>NW-1</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>47.15</u>	Depth to Water (DTW): <u>18.25</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>24.03</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Watrera
 Peristaltic
 Extraction Pump
 Other: 2" Grooves

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: 100in

42.5 (Gals.) X 3 = 127.5 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0851	20.3	7.1	667.6	388	42.5	
0856	20.5	7.3	672.1	376	85	
0902	20.6	7.3	677.3	257	127.5	

Did well dewater? Yes No

Gallons actually evacuated: 127.5

Sampling Date: 08-27-09 Sampling Time: 0905 Depth to Water: 21.32

Sample I.D.: ~~AA~~ NW-1 Laboratory: Kiff CalScience Other: Sub.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VWVWRA</u>
Sampler: <u>CD</u>	Date: <u>08-27-09</u>
Well I.D.: <u>NW-2</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>61.05</u>	Depth to Water (DTW): <u>7.78</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>18.13</u>	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water Peristaltic Extraction Pump Others: Groundrost

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: Tubing

78.3 (Gals.) X 3 = 234.9 Gals.

I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0740	20.2	7.3	679.1	9	78.5	
0750	20.0	7.4	680.1	10	157.0	
0801	20.2	7.3	681.3	7	235	

Did well dewater? Yes No Gallons actually evacuated: 235

Sampling Date: 08-27-09 Sampling Time: 0804 Depth to Water: 8.05

Sample I.D.: NW-2 Laboratory: Kiff CalScience Other Bab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWVRA</u>
Sampler: <u>Q</u>	Date: <u>0826-09</u>
Well I.D.: <u>NW-3</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>57.52</u>	Depth to Water (DTW): <u>5.57</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.96</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waters
 Peristaltic
 Extraction Pump
 Other: 2" Grundfos

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: 10' bling

76.4 (Gals.) X 3 = 229.20 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1509	22.7	7.3	969.4	7	76.5	
1519	21.3	7.3	972.8	4	153	
1529	21.3	7.3	946.5	2	229.5	

Did well dewater? Yes No Gallons actually evacuated: 229.5

Sampling Date: 08-26-09 Sampling Time: 1531 Depth to Water: 7.25

Sample I.D.: NW-3 Laboratory: Kiff CalScience Other: Lab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>0826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>CD</u>	Date: <u>08-26-09</u>
Well I.D.: <u>NZ-91</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>73.35</u>	Depth to Water (DTW): <u>67.05</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>68.71</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" GP Dedicated Tubing
 Other: Feibly

4.1 (Gals.) X _____ = _____ Gals.
 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1001	22.5	7.6	500.0	33	4.5	
Well dewatered @ 4.5 gal						
1130	23.0	7.6	508.1	346	-	

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 08-26-09 Sampling Time: 1130 Depth to Water: 67.11

Sample I.D.: NZ-91 Laboratory: Kiff CalScience Other: Babcock

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>090826-CD1</u>	Client: <u>W W W R A</u>
Sampler: <u>CD</u>	Date: <u>08-26-09</u>
Well I.D.: <u>NZ-119</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>171.90</u>	Depth to Water (DTW): <u>167.43</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>168.32</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible

Waters
 Peristaltic
 Extraction Pump
 Other: 2" Gordhos

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: Tubing

2.9 (Gals.) X 3 = 8.7 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0930	22.4	8.0	457.5	17	3	
			<u>Well de-aerated @ 4.5</u>			
1200	23.9	8.2	470.2	119	—	

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 08-26-09 Sampling Time: 1200 Depth to Water: 168.32

Sample I.D.: NZ-119 Laboratory: Kiff CalScience Other: Bab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWVRA</u>
Sampler: <u>Ⓚ</u>	Date: <u>08-26-09</u>
Well I.D.: <u>NZ-123</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>50.05</u>	Depth to Water (DTW): <u>48.15</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>48.53</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

1.3 (Gals.) X 3 = 3.9 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1032</u>	<u>22.3</u>	<u>7.1</u>	<u>953.4</u>	<u>229</u>	<u>1.5</u>	
<u>1040</u>	<u>22.2</u>	<u>7.2</u>	<u>930.2</u>	<u>361</u>	<u>3.0</u>	
<u>1050</u>	<u>22.1</u>	<u>7.2</u>	<u>921.4</u>	<u>404</u>	<u>4.0</u>	

Did well dewater? Yes No Gallons actually evacuated: 4.0

Sampling Date: 08-26-09 Sampling Time: 1100 Depth to Water: 48.50

Sample I.D.: NZ-123 Laboratory: Kiff CalScience Other Lab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>WWRA</u>
Sampler: <u>Q</u>	Date: <u>08-27-09</u>
Well I.D.: <u>QW-1</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>38.86</u>	Depth to Water (DTW): <u>19.50</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>23.37</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

WATERRA
 Peristaltic
 Extraction Pump
 Other: 2 GONDIOS

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: WATER

28.5 (Gals.) X 3 = 85.5 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0945	19.9	7.3	1070	22	28.5	
0949	19.8	7.2	1051	7	57	
0952	19.9	7.2	1037	5	85.5	

Did well dewater? Yes No

Gallons actually evacuated: 85.5

Sampling Date: 08-27-09 Sampling Time: 0955 Depth to Water: 21.65

Sample I.D.: QW-1 Laboratory: Kiff CalScience Other Rob.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>090826 CD1</u>	Client: <u>VWVRA</u>
Sampler: <u>CD</u>	Date: <u>08-27-09</u>
Well I.D.: <u>OW-4</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>44.34</u>	Depth to Water (DTW): <u>26.22</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>29.84</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waters
 Peristaltic
 Extraction Pump
Other 2" Grundfos

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: Tubing

26.7 (Gals.) X 3 = 80.1 Gals.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1026	21.9	7.8	698.7	2	27	
1030	21.5	7.8	685.3	2	53.5	
1033	21.3	7.8	683.8	2	80.5	

Did well dewater? Yes No Gallons actually evacuated: 80.5

Sampling Date: 08-27-09 Sampling Time: 1037 Depth to Water: 26.25

Sample I.D.: OW-4 Laboratory: Kiff CalScience Other B&B

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>WWWA</u>
Sampler: <u>CD</u>	Date: <u>08-27-09</u>
Well I.D.: <u>0W-6</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>29.30</u>	Depth to Water (DTW): <u>4.20</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>9.22</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waters
 Peristaltic
 Extraction Pump
 Other: 2" Gravel

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: Tubing

36.9 (Gals.) X 3 = 110.7 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1143	22.0	7.4	618.1	51	37	
1148	21.5	7.3	616.3	13	74	
1152	22.1	7.3	616.7	4	111	

Did well dewater? Yes No Gallons actually evacuated: 111

Sampling Date: 08-27-09 Sampling Time: 1155 Depth to Water: 4.45

Sample I.D.: 0W-6 Laboratory: Kiff CalScience Other: Bab

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SOLN.

EB I.D. (if applicable): @ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>Q</u>	Date: <u>08-26-09</u>
Well I.D.: <u>SP-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>70.60</u>	Depth to Water (DTW): <u>29.31</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>37.50</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" GP Dedicated Tubing
 Other: Tubing

26.9 (Gals.) X 3 = 80.7 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1301	21.6	7.1	702.4	24	27	
1305	20.6	7.1	706.3	54	54	
1308	20.7	7.2	708.9	81	81	

Did well dewater? Yes No Gallons actually evacuated: 81

Sampling Date: 08-26-09 Sampling Time: 1310 Depth to Water: 31.15

Sample I.D.: SP-1 Laboratory: Kiff CalScience Other Rob.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.A.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>WVWRA</u>
Sampler: <u>D</u>	Date: <u>08-26-09</u>
Well I.D.: <u>SP-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth (TD): <u>70.05</u>	Depth to Water (DTW): <u>31.67</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>39.34</u>	

Purge Method: Bailer Water Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other: 21 Grundfos Dedicated Tubing
 Other: 100%

<u>25.0</u> (Gals.) X <u>3</u>	<u>=</u> <u>75.0</u> Gals.	
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1330</u>	<u>23.3</u>	<u>7.4</u>	<u>749.1</u>	<u>46</u>	<u>25</u>	
<u>1333</u>	<u>22.1</u>	<u>7.4</u>	<u>746.7</u>	<u>26</u>	<u>50</u>	
<u>1337</u>	<u>22.1</u>	<u>7.3</u>	<u>746.4</u>	<u>20</u>	<u>75</u>	

Did well dewater? Yes No Gallons actually evacuated: 75

Sampling Date: 08-26-09 Sampling Time: 1340 Depth to Water: 32.11

Sample I.D.: SP-2 Laboratory: Kiff CalScience Other Rob.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL MONITORING DATA SHEET

Project #: <u>090826-01</u>	Client: <u>VVWRA</u>
Sampler: <u>CV</u>	Date: <u>08-26-09</u>
Well I.D.: <u>SP-3</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>77.75</u>	Depth to Water (DTW): <u>41.78</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVS</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>48.47</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 2" Grundfos Dedicated Tubing
 Other: 106m

23.4 (Gals.) X 3 = 70.2 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1700 1403	26.7	6.9	650.8	30	23.5	
171406	26.9	6.7	645.1	14	47	
1410	26.8	6.7	644.3	7	70.5	

Did well dewater? Yes No Gallons actually evacuated: 70.5

Sampling Date: 08-26-09 Sampling Time: 1415 Depth to Water: 43.13

Sample I.D.: SP-3 Laboratory: Kiff CalScience Other lab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.V.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>0826-01</u>	Client: <u>VVMWRA</u>
Sampler: <u>1</u>	Date: <u>08-27-09</u>
Well I.D.: <u>SP-4</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>147.10</u>	Depth to Water (DTW): <u>113.2</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>118.47</u>	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other: 2" Gaskets

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: Tubing

23.3 (Gals.) X 3 = 69.9 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1430</u>	<u>23.8</u>	<u>7.4</u>	<u>323</u>	<u>323</u>	<u>23.5</u>	
<u>1434</u>	<u>22.7</u>	<u>7.2</u>	<u>689.3</u>	<u>185</u>	<u>47.5</u>	
<u>1438</u>	<u>22.5</u>	<u>7.3</u>	<u>687.3</u>	<u>420</u>	<u>70.0</u>	

Did well dewater? Yes No Gallons actually evacuated: 70

Sampling Date: 08-27-09 Sampling Time: 1440 Depth to Water: 114.44

Sample I.D.: SP-4 Laboratory: Kiff CalScience Other: Bab.

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See S.O.W.

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client VVWRA Date 06-26-09

Site Address 20111 Shay Rd - Victorville

Job Number 090626-CDV Technician CD

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12" or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12" or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
NZ-119	X	X	X							
NZ-91	X									
NZ-123	X									
SP-1	X									
SP-2	X									
SP-3	X									
NW-3	X									
LW-4	X									
NW-2	X									
NW-1	X									
OW-1	X	X	X							
OW-4	X									
OW-6	X									
LW-3	X									
LW-2	X									
LW-1	X									
SP-4	X									

NOTES: _____



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Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 1 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2899-01	6767 NZ-123	Liquid	08/26/09 11:00	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2899-02	6768 NZ-91	Liquid	08/26/09 11:30	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2899-03	6769 NZ-119	Liquid	08/26/09 12:00	CD/CW	08/27/09 14:00	Courier (J. Mendez)

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	280	3.0	mg/L	SM 3120B	09/03/09 14:09	lmt	
Calcium	71	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Magnesium	24	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Sodium	83	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Potassium	6.3	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Anions							
Total Alkalinity	140	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	170	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	98	1.0	mg/L	EPA 300.0	08/28/09 02:42	ss	
Sulfate	140	0.50	mg/L	EPA 300.0	08/28/09 02:42	ss	
Nitrate as N	5.1	0.20	mg/L	EPA 300.0	08/28/09 02:42	ss	
Aggregate Organic Compounds							
Total Organic Carbon	0.73	0.70	mg/L	SM 5310B	09/01/09 01:35	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:50	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:11	sl	

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CA ELAP no. 2698
EPA no. CA00102



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Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

Sample Description: 6767 NZ-123
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:00
Received Date/Time: 08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

Sample Description: 6767 NZ-123
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:00
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

Sample Description: 6767 NZ-123
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 624 and Semivolatile Organic Compounds by EPA 625.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/01/09 22:04	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
a-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Aldrin	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Anthracene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
b-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzidine	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

Sample Description: 6767 NZ-123
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:00
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Phenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Pyrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
y-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Surrogate: 2,4,6-Tribromophenol	59.8	% 33-101		EPA 625	09/01/09 22:04	DF	
Surrogate: 2-Fluorobiphenyl	50.7	% 29-94		EPA 625	09/01/09 22:04	DF	
Surrogate: 2-Fluorophenol	30.2	% 15-52		EPA 625	09/01/09 22:04	DF	
Surrogate: 4-Terphenyl-d14	58.0	% 37-105		EPA 625	09/01/09 22:04	DF	
Surrogate: Nitrobenzene-d5	51.7	% 30-90		EPA 625	09/01/09 22:04	DF	
Surrogate: Phenol-d6	19.0	% 8-47		EPA 625	09/01/09 22:04	DF	



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Analytical Report: Page 9 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description
6768 NZ-91

Matrix
Liquid

Sampled Date/Time
08/26/09 11:30

Received Date/Time
08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons, Phenols), Surfactants (MBAS), and General Inorganics (Cyanide).

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
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Analytical Report: Page 10 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/27/09 20:27	jc	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:01	sl	
Kjeldahl Nitrogen	0.17	0.10	mg/L	EPA 351.2	08/28/09 18:23	sl	
Metals and Metalloids							
Iron	16000	500	ug/L	EPA 200.7	09/03/09 15:02	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Barium	170	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Boron	100	100	ug/L	EPA 200.7	09/03/09 14:13	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Total Chromium	20	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Copper	14	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Manganese	490	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:05	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:05	ap	
Vanadium	61	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Zinc	59	10	ug/L	EPA 200.8	09/02/09 20:05	ap	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Surrogate: 1,2-Dichloroethane-d4	106	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Surrogate: Bromofluorobenzene	94.8	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Surrogate: Toluene-d8	98.8	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 06:46	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:46	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:46	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	

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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description Matrix Sampled Date/Time Received Date/Time
6768 NZ-91 Liquid 08/26/09 11:30 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description: 6768 NZ-91
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:30
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Semivolatile Organic Compounds by EPA 625, listing various chemicals and their detection results.

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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description: 6768 NZ-91
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:30
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Analytical Report: Page 15 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description: 6768 NZ-91
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:30
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various Surrogate compounds.

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 Hesperia, CA 92345

Analytical Report: Page 16 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6769 NZ-119	Liquid	08/26/09 12:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	110	3.0	mg/L	SM 3120B	09/03/09 14:17	lmt	
Calcium	27	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Magnesium	11	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Sodium	59	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Potassium	4.6	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Anions							
Total Alkalinity	68	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	83	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	3.5	1.0	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Sulfate	130	0.50	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Nitrate as N	0.84	0.20	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.1	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:54	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:14	sil	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6769 NZ-119	Liquid	08/26/09 12:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 07:19	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 07:19	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 07:19	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 07:19	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 07:19	jes	
Surrogate: 1,2-Dichloroethane-d4	104	% 50-150		EPA 524.2	08/29/09 07:19	jes	
Surrogate: Bromofluorobenzene	95.0	% 50-150		EPA 524.2	08/29/09 07:19	jes	
Surrogate: Toluene-d8	97.7	% 50-150		EPA 524.2	08/29/09 07:19	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 07:19	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 07:19	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 07:19	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 624 and Semivolatile Organic Compounds by EPA 625.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Semivolatile Organic Compounds by EPA 625, listing various chemicals and their detection results.

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Analytical Report: Page 22 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various surrogate compounds like 2,4,6-Tribromophenol, 2-Fluorobiphenyl, etc.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Notes and Definitions

- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- NMout The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 9
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2901-01	6773 NW-3	Liquid	08/26/09 15:31	CD/CW	08/27/09 14:00	Courier (J. Mendez)

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 2 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6773 NW-3	Liquid	08/26/09 15:31	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	170	3.0	mg/L	SM 3120B	09/03/09 14:46	lmt	
Calcium	56	1.0	mg/L	EPA 200.7	09/03/09 14:46	lmt	
Magnesium	8.0	1.0	mg/L	EPA 200.7	09/03/09 14:46	lmt	
Sodium	130	1.0	mg/L	EPA 200.7	09/03/09 14:46	lmt	
Potassium	1.2	1.0	mg/L	EPA 200.7	09/03/09 14:46	lmt	
Anions							
Total Alkalinity	290	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	350	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	94	1.0	mg/L	EPA 300.0	08/28/09 10:20	ss	
Sulfate	46	0.50	mg/L	EPA 300.0	08/28/09 10:20	ss	
Nitrate as N	0.29	0.20	mg/L	EPA 300.0	08/28/09 10:20	ss	
Aggregate Organic Compounds							
Total Organic Carbon	3.2	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:04	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:21	sl	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 3 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

Sample Description: 6773 NW-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 15:31
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2901

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

Sample Description: 6773 NW-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 15:31
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Analytical Report: Page 5 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

Sample Description: 6773 NW-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 15:31
Received Date/Time: 08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, 1,2,4-Trichlorobenzene, etc.).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 6 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

Sample Description: 6773 NW-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 15:31
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 7 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2901-01

Sample Description: 6773 NW-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 15:31
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 8 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2901-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6773 NW-3	Liquid	08/26/09 15:31	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 02:08	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 02:08	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 02:08	DF	
Surrogate: 2,4,6-Tribromophenol	67.0	% 33-101		EPA 625	09/02/09 02:08	DF	
Surrogate: 2-Fluorobiphenyl	61.0	% 29-94		EPA 625	09/02/09 02:08	DF	
Surrogate: 2-Fluorophenol	38.6	% 15-52		EPA 625	09/02/09 02:08	DF	
Surrogate: 4-Terphenyl-d14	67.2	% 37-105		EPA 625	09/02/09 02:08	DF	
Surrogate: Nitrobenzene-d5	60.4	% 30-90		EPA 625	09/02/09 02:08	DF	
Surrogate: Phenol-d6	23.4	% 8-47		EPA 625	09/02/09 02:08	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 9 of 9
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2901

Received on Ice (Y/N): Yes Temp: 7 °C

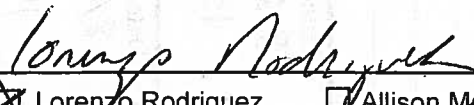
Notes and Definitions

- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc: ESB_Short_Report



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Client Name: Victor Valley Reclamation Authority
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 Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2900-01	6770 SP-1	Liquid	08/26/09 13:10	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2900-02	6771 SP-2	Liquid	08/26/09 13:40	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2900-03	6772 SP-3	Liquid	08/26/09 14:15	CD/CW	08/27/09 14:00	Courier (J. Mendez)

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 CA ELAP no. 2698
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6770 SP-1	Liquid	08/26/09 13:10	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	120	3.0	mg/L	SM 3120B	09/03/09 14:21	lmt	
Calcium	37	1.0	mg/L	EPA 200.7	09/03/09 14:21	lmt	
Magnesium	5.5	1.0	mg/L	EPA 200.7	09/03/09 14:21	lmt	
Sodium	93	1.0	mg/L	EPA 200.7	09/03/09 14:21	lmt	
Potassium	2.9	1.0	mg/L	EPA 200.7	09/03/09 14:21	lmt	
Anions							
Total Alkalinity	160	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	200	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	62	1.0	mg/L	EPA 300.0	08/28/09 04:12	ARA	
Sulfate	40	0.50	mg/L	EPA 300.0	08/28/09 04:12	ARA	
Nitrate as N	7.9	0.20	mg/L	EPA 300.0	08/28/09 04:12	ARA	
Aggregate Organic Compounds							
Total Organic Carbon	1.1	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:55	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:16	sll	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Work Order Number: A9H2900

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 624 and Semivolatile Organic Compounds by EPA 625.

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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-01

Sample Description: 6770 SP-1
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:10
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various surrogate compounds like 2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, 4-Terphenyl-d14, Nitrobenzene-d5, and Phenol-d6.

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Analytical Report: Page 9 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Work Order Number: A9H2900

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-02

Sample Description: 6771 SP-2
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:40
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons, Phenols), Surfactants (MBAS), and General Inorganics (Cyanide).



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 10 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2900-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6771 SP-2	Liquid	08/26/09 13:40	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/27/09 20:27	jc	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:08	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	08/28/09 18:28	sll	
Metals and Metalloids							
Iron	1000	50	ug/L	EPA 200.7	09/03/09 14:23	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:14	ap	
Barium	84	20	ug/L	EPA 200.8	09/02/09 20:14	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Boron	250	100	ug/L	EPA 200.7	09/03/09 14:23	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:14	ap	
Total Chromium	ND	20	ug/L	EPA 200.8	09/02/09 20:14	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Copper	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Manganese	300	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:14	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:14	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:14	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:14	ap	
Vanadium	11	10	ug/L	EPA 200.8	09/02/09 20:14	ap	
Zinc	ND	10	ug/L	EPA 200.8	09/02/09 20:14	ap	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-02

Sample Description: 6771 SP-2
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:40
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-02

Sample Description: 6771 SP-2
Matrix: Liquid
Sampled Date/Time: 08/26/09 13:40
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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Client Name: Victor Valley Reclamation Authority
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Address: 15776 Main St. Suite 3
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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-02

Sample Description

6771 SP-2

Matrix

Liquid

Sampled Date/Time

08/26/09 13:40

Received Date/Time

08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Client Name: Victor Valley Reclamation Authority
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Address: 15776 Main St. Suite 3
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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2900-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6771 SP-2	Liquid	08/26/09 13:40	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Benzo(b)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Benzo(ghi)perylene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Benzo(k)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Bis(2-chloroethoxy)methane	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Bis(2-Chloroethyl)ether	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Bis(2-chloroisopropyl)Ether	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/L	EPA 625	09/02/09 01:06	DF	
Butyl benzyl phthalate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Chlordane (screen)	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Chrysene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
d-BHC	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Di-n-butylphthalate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Di-n-octylphthalate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Dibenzo(a,h)anthracene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Dieldrin	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Diethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Dimethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Endosulfan I	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Endosulfan II	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Endosulfan Sulfate	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Endrin	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Fluoranthene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Fluorene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Heptachlor	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Heptachlor Epoxide	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Hexachlorobenzene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Hexachlorobutadiene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Hexachlorocyclopentadiene	ND	50	ug/L	EPA 625	09/02/09 01:06	DF	
Hexachloroethane	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 15 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6771 SP-2	Liquid	08/26/09 13:40	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 01:06	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 01:06	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 01:06	DF	
Surrogate: 2,4,6-Tribromophenol	53.9	% 33-101		EPA 625	09/02/09 01:06	DF	
Surrogate: 2-Fluorobiphenyl	53.3	% 29-94		EPA 625	09/02/09 01:06	DF	
Surrogate: 2-Fluorophenol	24.6	% 15-52		EPA 625	09/02/09 01:06	DF	
Surrogate: 4-Terphenyl-d14	54.2	% 37-105		EPA 625	09/02/09 01:06	DF	
Surrogate: Nitrobenzene-d5	52.5	% 30-90		EPA 625	09/02/09 01:06	DF	
Surrogate: Phenol-d6	17.0	% 8-47		EPA 625	09/02/09 01:06	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 16 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2900-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6772 SP-3	Liquid	08/26/09 14:15	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	78	3.0	mg/L	SM 3120B	09/03/09 14:44	lmt	
Calcium	24	1.0	mg/L	EPA 200.7	09/03/09 14:44	lmt	
Magnesium	4.2	1.0	mg/L	EPA 200.7	09/03/09 14:44	lmt	
Sodium	85	1.0	mg/L	EPA 200.7	09/03/09 14:44	lmt	
Potassium	10	1.0	mg/L	EPA 200.7	09/03/09 14:44	lmt	
Anions							
Total Alkalinity	130	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	160	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	64	1.0	mg/L	EPA 300.0	08/28/09 04:38	ARA	
Sulfate	36	0.50	mg/L	EPA 300.0	08/28/09 04:38	ARA	
Nitrate as N	6.7	0.20	mg/L	EPA 300.0	08/28/09 04:38	ARA	
Aggregate Organic Compounds							
Total Organic Carbon	20	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:02	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:19	sl	



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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-03

Sample Description: 6772 SP-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 14:15
Received Date/Time: 08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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EPA no. CA00102



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Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2900-03

Sample Description: 6772 SP-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 14:15
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-03

Sample Description: 6772 SP-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 14:15
Received Date/Time: 08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-03

Sample Description: 6772 SP-3
Matrix: Liquid
Sampled Date/Time: 08/26/09 14:15
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2900-03

Sample Description
6772 SP-3

Matrix
Liquid

Sampled Date/Time
08/26/09 14:15

Received Date/Time
08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various chemical names like Benzo(b)fluoranthene, etc.

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 22 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2900-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6772 SP-3	Liquid	08/26/09 14:15	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 01:37	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 01:37	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 01:37	DF	
Surrogate: 2,4,6-Tribromophenol	61.2	% 33-101		EPA 625	09/02/09 01:37	DF	
Surrogate: 2-Fluorobiphenyl	54.0	% 29-94		EPA 625	09/02/09 01:37	DF	
Surrogate: 2-Fluorophenol	25.0	% 15-52		EPA 625	09/02/09 01:37	DF	
Surrogate: 4-Terphenyl-d14	63.4	% 37-105		EPA 625	09/02/09 01:37	DF	
Surrogate: Nitrobenzene-d5	52.2	% 30-90		EPA 625	09/02/09 01:37	DF	
Surrogate: Phenol-d6	18.6	% 8-47		EPA 625	09/02/09 01:37	DF	



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Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2900

Received on Ice (Y/N): Yes Temp: 7 °C

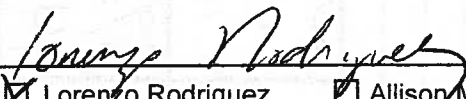
Notes and Definitions

- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- NMout The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc: ESB_Short_Report



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902
 Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2902-01	6782 LW-4 Duplicate	Liquid	08/27/09 06:30	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2902-02	6783 LW-4	Liquid	08/27/09 07:10	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2902-03	6784 NW-2	Liquid	08/27/09 08:04	CD/CW	08/27/09 14:00	Courier (J. Mendez)



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6782 LW-4 Duplicate	Liquid	08/27/09 06:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	93	3.0	mg/L	SM 3120B	09/03/09 14:50	lmt	
Calcium	30	1.0	mg/L	EPA 200.7	09/03/09 14:50	lmt	
Magnesium	4.4	1.0	mg/L	EPA 200.7	09/03/09 14:50	lmt	
Sodium	86	1.0	mg/L	EPA 200.7	09/03/09 14:50	lmt	
Potassium	1.9	1.0	mg/L	EPA 200.7	09/03/09 14:50	lmt	
Anions							
Total Alkalinity	120	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	150	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	45	1.0	mg/L	EPA 300.0	08/28/09 10:32	ss	
Sulfate	74	0.50	mg/L	EPA 300.0	08/28/09 10:32	ss	
Nitrate as N	7.1	0.20	mg/L	EPA 300.0	08/28/09 10:32	ss	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	0.89	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:06	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 15:00	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:30	sl	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6782 LW-4 Duplicate	Liquid	08/27/09 06:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:14	slf	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	09/02/09 14:10	slf	
Metals and Metalloids							
Iron	ND	50	ug/L	EPA 200.7	09/03/09 14:51	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:35	ap	
Barium	54	20	ug/L	EPA 200.8	09/02/09 20:35	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Boron	120	100	ug/L	EPA 200.7	09/03/09 14:51	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:35	ap	
Total Chromium	ND	20	ug/L	EPA 200.8	09/02/09 20:35	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Copper	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Manganese	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:35	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:35	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:35	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:35	ap	
Vanadium	22	10	ug/L	EPA 200.8	09/02/09 20:35	ap	
Zinc	ND	10	ug/L	EPA 200.8	09/02/09 20:35	ap	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6782 LW-4 Duplicate	Liquid	08/27/09 06:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 12:48	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 12:48	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 12:48	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 12:48	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 12:48	jes	
Surrogate: 1,2-Dichloroethane-d4	101	% 50-150		EPA 524.2	08/29/09 12:48	jes	
Surrogate: Bromofluorobenzene	98.0	% 50-150		EPA 524.2	08/29/09 12:48	jes	
Surrogate: Toluene-d8	97.5	% 50-150		EPA 524.2	08/29/09 12:48	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 12:48	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 12:48	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 12:48	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 12:48	jes	



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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-01

Sample Description: 6782 LW-4 Duplicate
Matrix: Liquid
Sampled Date/Time: 08/27/09 06:30
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6782 LW-4 Duplicate	Liquid	08/27/09 06:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/02/09 02:40	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/02/09 02:40	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
a-BHC	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Aldrin	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Anthracene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
b-BHC	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Benzidine	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-01

Sample Description: 6782 LW-4 Duplicate
Matrix: Liquid
Sampled Date/Time: 08/27/09 06:30
Received Date/Time: 08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows list various organic compounds like Benzo(b)fluoranthene, Chlordane, etc., with their respective results (ND, 3.0) and RDL values.

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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6782 LW-4 Duplicate	Liquid	08/27/09 06:30	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 02:40	DF	
γ-BHC	ND	10	ug/L	EPA 625	09/02/09 02:40	DF	
Surrogate: 2,4,6-Tribromophenol	63.4	% 33-101		EPA 625	09/02/09 02:40	DF	
Surrogate: 2-Fluorobiphenyl	62.1	% 29-94		EPA 625	09/02/09 02:40	DF	
Surrogate: 2-Fluorophenol	38.2	% 15-52		EPA 625	09/02/09 02:40	DF	
Surrogate: 4-Terphenyl-d14	65.3	% 37-105		EPA 625	09/02/09 02:40	DF	
Surrogate: Nitrobenzene-d5	60.5	% 30-90		EPA 625	09/02/09 02:40	DF	
Surrogate: Phenol-d6	23.3	% 8-47		EPA 625	09/02/09 02:40	DF	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 9 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-02

Sample Description
6783 LW-4

Matrix
Liquid

Sampled Date/Time
08/27/09 07:10

Received Date/Time
08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	92	3.0	mg/L	SM 3120B	09/03/09 14:53	lmt	
Calcium	30	1.0	mg/L	EPA 200.7	09/03/09 14:52	lmt	
Magnesium	4.3	1.0	mg/L	EPA 200.7	09/03/09 14:53	lmt	
Sodium	85	1.0	mg/L	EPA 200.7	09/03/09 14:52	lmt	
Potassium	1.9	1.0	mg/L	EPA 200.7	09/03/09 14:53	lmt	
Anions							
Total Alkalinity	120	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	140	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	44	1.0	mg/L	EPA 300.0	08/28/09 10:48	ss	
Sulfate	73	0.50	mg/L	EPA 300.0	08/28/09 10:48	ss	
Nitrate as N	7.1	0.20	mg/L	EPA 300.0	08/28/09 10:48	ss	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:07	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 15:00	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:31	sll	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 10 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
 Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6783 LW-4	Liquid	08/27/09 07:10	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:16	sll	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	09/02/09 14:11	sll	
Metals and Metalloids							
Iron	ND	50	ug/L	EPA 200.7	09/03/09 14:53	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:38	ap	
Barium	53	20	ug/L	EPA 200.8	09/02/09 20:38	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Boron	120	100	ug/L	EPA 200.7	09/03/09 14:53	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:38	ap	
Total Chromium	ND	20	ug/L	EPA 200.8	09/02/09 20:38	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Copper	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Manganese	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:38	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:38	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:38	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:38	ap	
Vanadium	22	10	ug/L	EPA 200.8	09/02/09 20:38	ap	
Zinc	ND	10	ug/L	EPA 200.8	09/02/09 20:38	ap	



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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-02

Sample Description: 6783 LW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 07:10
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6783 LW-4	Liquid	08/27/09 07:10	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Chloromethane	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 13:20	jes	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/29/09 13:20	jes	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Toluene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Trichloroethene	3.0	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/29/09 13:20	jes	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 13:20	jes	
Surrogate: 1,2-Dichloroethane-d4	104	% 78.5-125		EPA 624	08/29/09 13:20	jes	
Surrogate: Bromofluorobenzene	97.9	% 80-120		EPA 624	08/29/09 13:20	jes	
Surrogate: Toluene-d8	101	% 80-120		EPA 624	08/29/09 13:20	jes	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/02/09 03:11	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: **A9H2902**
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
6783 LW-4	Liquid	08/27/09 07:10	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/02/09 03:11	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/02/09 03:11	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
a-BHC	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Aldrin	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Anthracene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
b-BHC	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Benzidine	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6783 LW-4	Liquid	08/27/09 07:10	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Benzo(b)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Benzo(ghi)perylene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Benzo(k)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Bis(2-chloroethoxy)methane	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Bis(2-Chloroethyl)ether	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Bis(2-chloroisopropyl)Ether	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/L	EPA 625	09/02/09 03:11	DF	
Butyl benzyl phthalate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Chlordane (screen)	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Chrysene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
d-BHC	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Di-n-butylphthalate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Di-n-octylphthalate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Dibenzo(a,h)anthracene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Dieldrin	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Diethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Dimethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Endosulfan I	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Endosulfan II	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Endosulfan Sulfate	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Endrin	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Fluoranthene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Fluorene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Heptachlor	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Heptachlor Epoxide	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Hexachlorobenzene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Hexachlorobutadiene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Hexachlorocyclopentadiene	ND	50	ug/L	EPA 625	09/02/09 03:11	DF	
Hexachloroethane	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	EPA 625	09/02/09 03:11	DF	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 15 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-02

Sample Description
6783 LW-4

Matrix
Liquid

Sampled Date/Time
08/27/09 07:10

Received Date/Time
08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various surrogate compounds.



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 16 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6784 NW-2	Liquid	08/27/09 08:04	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	96	3.0	mg/L	SM 3120B	09/03/09 14:55	lmt	
Calcium	31	1.0	mg/L	EPA 200.7	09/03/09 14:55	lmt	
Magnesium	4.5	1.0	mg/L	EPA 200.7	09/03/09 14:55	lmt	
Sodium	99	1.0	mg/L	EPA 200.7	09/03/09 14:55	lmt	
Potassium	1.9	1.0	mg/L	EPA 200.7	09/03/09 14:55	lmt	
Anions							
Total Alkalinity	150	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	190	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	66	1.0	mg/L	EPA 300.0	08/28/09 11:01	ss	
Sulfate	42	0.50	mg/L	EPA 300.0	08/28/09 11:01	ss	
Nitrate as N	6.1	0.20	mg/L	EPA 300.0	08/28/09 11:01	ss	
Aggregate Organic Compounds							
Total Organic Carbon	1.2	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:09	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 15:00	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:33	slf	



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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-03

Sample Description: 6784 NW-2
Matrix: Liquid
Sampled Date/Time: 08/27/09 08:04
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 18 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6784 NW-2	Liquid	08/27/09 08:04	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 14:26	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 14:26	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 14:26	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 14:26	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 14:26	jes	
Surrogate: 1,2-Dichloroethane-d4	106	% 50-150		EPA 524.2	08/29/09 14:26	jes	
Surrogate: Bromofluorobenzene	98.9	% 50-150		EPA 524.2	08/29/09 14:26	jes	
Surrogate: Toluene-d8	99.1	% 50-150		EPA 524.2	08/29/09 14:26	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 14:26	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 14:26	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 14:26	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 14:26	jes	

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 CA ELAP no. 2698
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-03

Sample Description: 6784 NW-2
Matrix: Liquid
Sampled Date/Time: 08/27/09 08:04
Received Date/Time: 08/27/09 14:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, 1,2,4-Trichlorobenzene, etc.).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6784 NW-2	Liquid	08/27/09 08:04	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/02/09 10:36	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/02/09 10:36	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
a-BHC	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Aldrin	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Anthracene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
b-BHC	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Benzidine	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2902-03

Sample Description
6784 NW-2

Matrix
Liquid

Sampled Date/Time
08/27/09 08:04

Received Date/Time
08/27/09 14:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various chemical compounds like Benzo(b)fluoranthene, Benzo(ghi)perylene, etc.

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 22 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2902
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2902-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6784 NW-2	Liquid	08/27/09 08:04	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 10:36	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 10:36	DF	
Surrogate: 2,4,6-Tribromophenol	59.6	% 33-101		EPA 625	09/02/09 10:36	DF	
Surrogate: 2-Fluorobiphenyl	58.2	% 29-94		EPA 625	09/02/09 10:36	DF	
Surrogate: 2-Fluorophenol	30.4	% 15-52		EPA 625	09/02/09 10:36	DF	
Surrogate: 4-Terphenyl-d14	70.1	% 37-105		EPA 625	09/02/09 10:36	DF	
Surrogate: Nitrobenzene-d5	59.6	% 30-90		EPA 625	09/02/09 10:36	DF	
Surrogate: Phenol-d6	20.9	% 8-47		EPA 625	09/02/09 10:36	DF	



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Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2902

Received on Ice (Y/N): Yes Temp: 7 °C


Notes and Definitions

- N_RLm Due to sample matrix, the reporting limit has been raised.
- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2977-01	6787 NW-1	Liquid	08/27/09 09:05	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2977-02	6788 OW-1	Liquid	08/27/09 09:55	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2977-03	6789 OW-4	Liquid	08/27/09 10:37	CD/CW	08/28/09 15:00	Courier (J. Mendez)

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 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 2 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977
 Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6787 NW-1	Liquid	08/27/09 09:05	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	190	3.0	mg/L	SM 3120B	09/04/09 15:40	lmt	
Calcium	55	1.0	mg/L	EPA 200.7	09/04/09 15:40	lmt	
Magnesium	12	1.0	mg/L	EPA 200.7	09/04/09 15:40	lmt	
Sodium	63	1.0	mg/L	EPA 200.7	09/04/09 15:40	lmt	
Potassium	3.3	1.0	mg/L	EPA 200.7	09/04/09 15:40	lmt	
Anions							
Total Alkalinity	140	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	170	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	68	1.0	mg/L	EPA 300.0	08/29/09 01:13	ss	
Sulfate	70	0.50	mg/L	EPA 300.0	08/29/09 01:13	ss	
Nitrate as N	ND	0.20	mg/L	EPA 300.0	08/29/09 01:13	ss	
Aggregate Organic Compounds							
Total Organic Carbon	0.84	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 12:12	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 20:30	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 14:09	sl	



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Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6787 NW-1	Liquid	08/27/09 09:05	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	0.17	0.10	mg/L	SM4500NH3H	08/31/09 10:37	sll	
Kjeldahl Nitrogen	1.5	0.20	mg/L	EPA 351.2	09/02/09 14:18	sll	
Metals and Metalloids							
Iron	12000	500	ug/L	EPA 200.7	09/04/09 16:55	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Arsenic	7.5	5.0	ug/L	EPA 200.8	09/04/09 12:03	krv	
Barium	290	20	ug/L	EPA 200.8	09/04/09 12:03	krv	
Beryllium	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Boron	200	100	ug/L	EPA 200.7	09/04/09 15:41	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/04/09 12:03	krv	
Total Chromium	ND	20	ug/L	EPA 200.8	09/04/09 12:03	krv	
Cobalt	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Copper	10	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Lead	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Manganese	1300	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Mercury	ND	0.50	ug/L	EPA 200.8	09/04/09 12:03	krv	
Molybdenum	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Nickel	ND	20	ug/L	EPA 200.8	09/04/09 12:03	krv	
Selenium	ND	5.0	ug/L	EPA 200.8	09/04/09 12:03	krv	
Silver	ND	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Thallium	ND	200	ug/L	EPA 200.8	09/04/09 12:03	krv	
Vanadium	21	10	ug/L	EPA 200.8	09/04/09 12:03	krv	
Zinc	29	10	ug/L	EPA 200.8	09/04/09 12:03	krv	

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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-01

<u>Sample Description</u> 6787 NW-1	<u>Matrix</u> Liquid	<u>Sampled Date/Time</u> 08/27/09 09:05	<u>Received Date/Time</u> 08/28/09 15:00
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Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/31/09 13:36	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 13:36	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 13:36	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/31/09 13:36	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 13:36	eec	
Surrogate: 1,2-Dichloroethane-d4	102	% 50-150		EPA 524.2	08/31/09 13:36	eec	
Surrogate: Bromofluorobenzene	101	% 50-150		EPA 524.2	08/31/09 13:36	eec	
Surrogate: Toluene-d8	100	% 50-150		EPA 524.2	08/31/09 13:36	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 13:36	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 13:36	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 13:36	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 13:36	eec	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

Sample Description: 6787 NW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:05
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

Sample Description: 6787 NW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and detection limits.

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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

Sample Description: 6787 NW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2977

Report Date: 14-Sep-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-01

Sample Description: 6787 NW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various surrogate compounds.



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Analytical Report: Page 9 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-02

Sample Description

6788 OW-1

Matrix

Liquid

Sampled Date/Time

08/27/09 09:55

Received Date/Time

08/28/09 15:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons, Phenols), Surfactants (MBAS), and General Inorganics (Cyanide).

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Analytical Report: Page 10 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6788 OW-1	Liquid	08/27/09 09:55	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	0.11	0.10	mg/L	SM4500NH3H	08/31/09 10:40	sll	
Kjeldahl Nitrogen	0.70	0.20	mg/L	EPA 351.2	09/02/09 14:20	sll	
Metals and Metalloids							
Iron	560	50	ug/L	EPA 200.7	09/04/09 15:45	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/04/09 12:06	krv	
Barium	76	20	ug/L	EPA 200.8	09/04/09 12:06	krv	
Beryllium	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Boron	130	100	ug/L	EPA 200.7	09/04/09 15:45	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/04/09 12:06	krv	
Total Chromium	ND	20	ug/L	EPA 200.8	09/04/09 12:06	krv	
Cobalt	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Copper	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Lead	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Manganese	1400	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Mercury	ND	0.50	ug/L	EPA 200.8	09/04/09 12:06	krv	
Molybdenum	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Nickel	ND	20	ug/L	EPA 200.8	09/04/09 12:06	krv	
Selenium	ND	5.0	ug/L	EPA 200.8	09/04/09 12:06	krv	
Silver	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Thallium	ND	200	ug/L	EPA 200.8	09/04/09 12:06	krv	
Vanadium	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	
Zinc	ND	10	ug/L	EPA 200.8	09/04/09 12:06	krv	



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6788 OW-1	Liquid	08/27/09 09:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/31/09 14:13	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 14:13	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 14:13	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/31/09 14:13	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 14:13	eec	
Surrogate: 1,2-Dichloroethane-d4	101	% 50-150		EPA 524.2	08/31/09 14:13	eec	
Surrogate: Bromofluorobenzene	103	% 50-150		EPA 524.2	08/31/09 14:13	eec	
Surrogate: Toluene-d8	101	% 50-150		EPA 524.2	08/31/09 14:13	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 14:13	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 14:13	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 14:13	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6788 OW-1	Liquid	08/27/09 09:55	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Chloromethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 14:13	eec	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/31/09 14:13	eec	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Toluene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/31/09 14:13	eec	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 14:13	eec	
Surrogate: 1,2-Dichloroethane-d4	101	% 78.5-125		EPA 624	08/31/09 14:13	eec	
Surrogate: Bromofluorobenzene	103	% 80-120		EPA 624	08/31/09 14:13	eec	
Surrogate: Toluene-d8	101	% 80-120		EPA 624	08/31/09 14:13	eec	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/02/09 11:36	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 11:36	DF	

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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-02

Sample Description: 6788 OW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:55
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-02

Sample Description: 6788 OW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 09:55
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 15 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977
 Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6788 OW-1	Liquid	08/27/09 09:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 11:36	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 11:36	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 11:36	DF	
Surrogate: 2,4,6-Tribromophenol	63.9	% 33-101		EPA 625	09/02/09 11:36	DF	
Surrogate: 2-Fluorobiphenyl	62.9	% 29-94		EPA 625	09/02/09 11:36	DF	
Surrogate: 2-Fluorophenol	41.7	% 15-52		EPA 625	09/02/09 11:36	DF	
Surrogate: 4-Terphenyl-d14	65.5	% 37-105		EPA 625	09/02/09 11:36	DF	
Surrogate: Nitrobenzene-d5	62.8	% 30-90		EPA 625	09/02/09 11:36	DF	
Surrogate: Phenol-d6	27.1	% 8-47		EPA 625	09/02/09 11:36	DF	

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 CA ELAP no. 2698
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 16 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6789 OW-4	Liquid	08/27/09 10:37	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	86	3.0	mg/L	SM 3120B	09/04/09 15:46	lmt	
Calcium	28	1.0	mg/L	EPA 200.7	09/04/09 15:46	lmt	
Magnesium	3.6	1.0	mg/L	EPA 200.7	09/04/09 15:46	lmt	
Sodium	100	1.0	mg/L	EPA 200.7	09/04/09 15:46	lmt	
Potassium	1.7	1.0	mg/L	EPA 200.7	09/04/09 15:46	lmt	
Anions							
Total Alkalinity	150	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	180	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	59	1.0	mg/L	EPA 300.0	08/29/09 02:41	ss	
Sulfate	39	0.50	mg/L	EPA 300.0	08/29/09 02:41	ss	
Nitrate as N	11	0.20	mg/L	EPA 300.0	08/29/09 02:41	ss	
Aggregate Organic Compounds							
Total Organic Carbon	0.71	0.70	mg/L	SM 5310B	09/05/09 05:16	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/11/09 16:14	JE	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 20:30	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 14:12	slh	



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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-03

Sample Description: 6789 OW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 10:37
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2977-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6789 OW-4	Liquid	08/27/09 10:37	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	2.8	0.50	ug/L	EPA 524.2	08/31/09 14:49	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 14:49	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 14:49	eec	
Chloroform	2.5	0.50	ug/L	EPA 524.2	08/31/09 14:49	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 14:49	eec	
Surrogate: 1,2-Dichloroethane-d4	107	% 50-150		EPA 524.2	08/31/09 14:49	eec	
Surrogate: Bromofluorobenzene	102	% 50-150		EPA 524.2	08/31/09 14:49	eec	
Surrogate: Toluene-d8	101	% 50-150		EPA 524.2	08/31/09 14:49	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 14:49	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 14:49	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 14:49	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 14:49	eec	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-03

Sample Description: 6789 OW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 10:37
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 624 and Semivolatile Organic Compounds by EPA 625.

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EPA no. CA00102



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Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-03

Sample Description: 6789 OW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 10:37
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-03

Sample Description: 6789 OW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 10:37
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various chemical compounds like Benzo(b)fluoranthene, Heptachlor, etc.

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 22 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2977-03

Sample Description: 6789 OW-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 10:37
Received Date/Time: 08/28/09 15:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various chemical analytes like Isophorone, n-Nitrosodi-n-propylamine, etc.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2977

Received on Ice (Y/N): Yes Temp: 8 °C

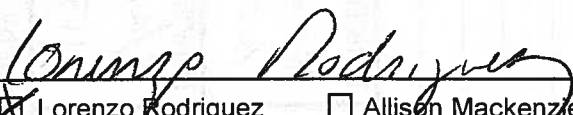
Notes and Definitions

- N_RLm Due to sample matrix, the reporting limit has been raised.
- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 1 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2981-01	6793 LW-1	Liquid	08/27/09 13:50	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2981-02	6794 Equipment Blank	Liquid	08/27/09 14:05	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2981-03	6795 SP-4	Liquid	08/27/09 14:40	CD/CW	08/28/09 15:00	Courier (J. Mendez)

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2981

Report Date: 16-Sep-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

Sample Description: 6793 LW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 13:50
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons, Phenols), Surfactants (MBAS), and General Inorganics (Cyanide).



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 3 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6793 LW-1	Liquid	08/27/09 13:50	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/31/09 10:54	sll	
Kjeldahl Nitrogen	ND	0.40	mg/L	EPA 351.2	09/02/09 15:36	sll	N_RLm
Metals and Metalloids							
Iron	ND	50	ug/L	EPA 200.7	09/04/09 15:55	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/04/09 12:34	krv	
Barium	74	20	ug/L	EPA 200.8	09/04/09 12:34	krv	
Beryllium	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Boron	200	100	ug/L	EPA 200.7	09/04/09 15:55	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/04/09 12:34	krv	
Total Chromium	ND	20	ug/L	EPA 200.8	09/04/09 12:34	krv	
Cobalt	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Copper	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Lead	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Manganese	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Mercury	ND	0.50	ug/L	EPA 200.8	09/04/09 12:34	krv	
Molybdenum	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Nickel	ND	20	ug/L	EPA 200.8	09/04/09 12:34	krv	
Selenium	ND	5.0	ug/L	EPA 200.8	09/04/09 12:34	krv	
Silver	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Thallium	ND	200	ug/L	EPA 200.8	09/04/09 12:34	krv	
Vanadium	21	10	ug/L	EPA 200.8	09/04/09 12:34	krv	
Zinc	ND	10	ug/L	EPA 200.8	09/04/09 12:34	krv	

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 CA ELAP no. 2698
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Address: 15776 Main St. Suite 3
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

Sample Description: 6793 LW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 13:50
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

Sample Description: 6793 LW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 13:50
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, etc.).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2981-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6793 LW-1	Liquid	08/27/09 13:50	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/02/09 13:38	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/02/09 13:38	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
a-BHC	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Aldrin	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Anthracene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
b-BHC	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Benzidine	ND	50	ug/L	EPA 625	09/02/09 13:38	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/02/09 13:38	DF	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

Sample Description: 6793 LW-1
Matrix: Liquid
Sampled Date/Time: 08/27/09 13:50
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-01

Sample Description Matrix Sampled Date/Time Received Date/Time
6793 LW-1 Liquid 08/27/09 13:50 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatle Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various Surrogate compounds.



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 9 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6794 Equipment Blank	Liquid	08/27/09 14:05	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	ND	3.0	mg/L	SM 3120B	09/04/09 15:57	lmt	
Calcium	ND	1.0	mg/L	EPA 200.7	09/04/09 15:57	lmt	
Magnesium	ND	1.0	mg/L	EPA 200.7	09/04/09 15:57	lmt	
Sodium	ND	1.0	mg/L	EPA 200.7	09/04/09 15:57	lmt	
Potassium	ND	1.0	mg/L	EPA 200.7	09/04/09 15:57	lmt	
Anions							
Total Alkalinity	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	ND	1.0	mg/L	EPA 300.0	08/29/09 03:59	ss	
Sulfate	ND	0.50	mg/L	EPA 300.0	08/29/09 03:59	ss	
Nitrate as N	ND	0.20	mg/L	EPA 300.0	08/29/09 03:59	ss	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/05/09 05:16	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/11/09 16:25	JE	
Surfactants							
MBAS	0.25	0.05	mg/L	SM 5540C	08/28/09 20:30	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	09/02/09 12:51	sll	

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Analytical Report: Page 10 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

Sample Description: 6794 Equipment Blank
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Analytical Report: Page 11 of 23
Project Name: VVRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

Sample Description: 6794 Equipment Blank
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2981-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6794 Equipment Blank	Liquid	08/27/09 14:05	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Chloromethane	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 18:30	eec	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/31/09 18:30	eec	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Toluene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/31/09 18:30	eec	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 18:30	eec	
Surrogate: 1,2-Dichloroethane-d4	103	% 78.5-125		EPA 624	08/31/09 18:30	eec	
Surrogate: Bromofluorobenzene	101	% 80-120		EPA 624	08/31/09 18:30	eec	
Surrogate: Toluene-d8	99.5	% 80-120		EPA 624	08/31/09 18:30	eec	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/02/09 14:40	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/02/09 14:40	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/02/09 14:40	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/02/09 14:40	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/02/09 14:40	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/02/09 14:40	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 14:40	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

Sample Description: 6794 Equipment Blank
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:05
Received Date/Time: 08/28/09 15:00

Table with 9 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of 37 semivolatile organic compounds and their detection results.

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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

Sample Description: 6794 Equipment Blank
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 15 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-02

Sample Description: 6794 Equipment Blank
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:05
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various Surrogate compounds.

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Analytical Report: Page 16 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2981

Report Date: 16-Sep-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6795 SP-4	Liquid	08/27/09 14:40	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	140	3.0	mg/L	SM 3120B	09/04/09 16:18	lmt	
Calcium	41	1.0	mg/L	EPA 200.7	09/04/09 16:18	lmt	
Magnesium	8.7	1.0	mg/L	EPA 200.7	09/04/09 16:18	lmt	
Sodium	91	1.0	mg/L	EPA 200.7	09/04/09 16:18	lmt	
Potassium	4.2	1.0	mg/L	EPA 200.7	09/04/09 16:18	lmt	
Anions							
Total Alkalinity	160	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	190	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	62	1.0	mg/L	EPA 300.0	08/29/09 04:09	ss	
Sulfate	36	0.50	mg/L	EPA 300.0	08/29/09 04:09	ss	
Nitrate as N	8.9	0.20	mg/L	EPA 300.0	08/29/09 04:09	ss	
Aggregate Organic Compounds							
Total Organic Carbon	1.0	0.70	mg/L	SM 5310B	09/05/09 05:16	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/11/09 16:26	JE	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 21:48	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	09/02/09 12:53	sll	

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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-03

Sample Description: 6795 SP-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:40
Received Date/Time: 08/28/09 15:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2981-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6795 SP-4	Liquid	08/27/09 14:40	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	3.8	0.50	ug/L	EPA 524.2	08/31/09 19:07	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 19:07	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 19:07	eec	
Chloroform	3.4	0.50	ug/L	EPA 524.2	08/31/09 19:07	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 19:07	eec	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101	% 50-150		EPA 524.2	08/31/09 19:07	eec	
<i>Surrogate: Bromofluorobenzene</i>	102	% 50-150		EPA 524.2	08/31/09 19:07	eec	
<i>Surrogate: Toluene-d8</i>	101	% 50-150		EPA 524.2	08/31/09 19:07	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 19:07	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 19:07	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 19:07	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 19:07	eec	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-03

Sample Description: 6795 SP-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:40
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, 1,2,4-Trichlorobenzene, etc.).

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Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-03

Sample Description: 6795 SP-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:40
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2981-03

Sample Description: 6795 SP-4
Matrix: Liquid
Sampled Date/Time: 08/27/09 14:40
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 22 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 16-Sep-2009

Work Order Number: A9H2981

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2981-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6795 SP-4	Liquid	08/27/09 14:40	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 15:12	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 15:12	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 15:12	DF	
Surrogate: 2,4,6-Tribromophenol	58.7	% 33-101		EPA 625	09/02/09 15:12	DF	
Surrogate: 2-Fluorobiphenyl	58.2	% 29-94		EPA 625	09/02/09 15:12	DF	
Surrogate: 2-Fluorophenol	34.3	% 15-52		EPA 625	09/02/09 15:12	DF	
Surrogate: 4-Terphenyl-d14	60.6	% 37-105		EPA 625	09/02/09 15:12	DF	
Surrogate: Nitrobenzene-d5	56.1	% 30-90		EPA 625	09/02/09 15:12	DF	
Surrogate: Phenol-d6	20.7	% 8-47		EPA 625	09/02/09 15:12	DF	



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Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 16-Sep-2009

Work Order Number: A9H2981
Received on Ice (Y/N): Yes Temp: 8 °C

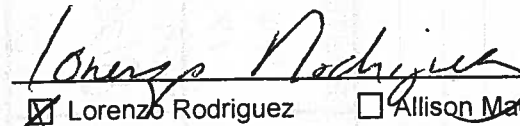
Notes and Definitions

- N_RLm Due to sample matrix, the reporting limit has been raised.
- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- NMint Due to matrix interference, the matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report

LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

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 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com



Project Name: Annual Groundwater Monitoring Wells		Sample Type		Laboratory Analyses Requested											Sample Preservation Methods		Sample Matrix																		
VWVRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab	Composite	MBAS	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Chloride & Sulfate	Alkalinity	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)	Cyanide	Phenols	EPA 625 (BNA) w/Dioxin	EPA 624 w/MTBE	Total # of Containers	Refrigeration	H ₂ SO ₄ pH < 2	HNO ₃ pH < 2	Na ₂ S ₂ O ₃	NaOH pH > 12	HCl									
																																		(WW, DW, GW, SG)	
6793	LW-1	8/27/09	1350	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2								GW
6794	Expans 1 Blank	8/27/09	1405	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2								GW
6795	SP-4	8/27/09	1440	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2								GW

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>	8/27/09 1458	<i>[Signature]</i>	8/28/09 12:15
Print: Chris Wells Company: VVWRA		Print: Gina Cloutier Company: VVWRA	
Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>	8/28/09 15:00	<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: Angie Brown Company: ESB	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>[Signature]</i>		<i>[Signature]</i>	
Print: J. Mendez Company: D.F.E.		Print: L. Mendez Company: D.F.E.	

Samples received on Ice? Yes No
 Samples Received Temperature: _____
 Laboratory Note: _____
 Samples sent via _____
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Environmental Laboratories *est 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 1 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2980-01	6790 OW-6	Liquid	08/27/09 11:55	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2980-02	6791 LW-3	Liquid	08/27/09 12:25	CD/CW	08/28/09 15:00	Courier (J. Mendez)
A9H2980-03	6792 LW-2	Liquid	08/28/09 12:55	CD/CW	08/28/09 15:00	Courier (J. Mendez)

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6790 OW-6	Liquid	08/27/09 11:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	120	3.0	mg/L	SM 3120B	09/04/09 15:48	lmt	
Calcium	39	1.0	mg/L	EPA 200.7	09/04/09 15:48	lmt	
Magnesium	4.7	1.0	mg/L	EPA 200.7	09/04/09 15:48	lmt	
Sodium	75	1.0	mg/L	EPA 200.7	09/04/09 15:48	lmt	
Potassium	2.1	1.0	mg/L	EPA 200.7	09/04/09 15:48	lmt	
Anions							
Total Alkalinity	140	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	170	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	34	1.0	mg/L	EPA 300.0	08/29/09 02:51	ss	
Sulfate	82	0.50	mg/L	EPA 300.0	08/29/09 02:51	ss	
Nitrate as N	1.8	0.20	mg/L	EPA 300.0	08/29/09 02:51	ss	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/05/09 05:16	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/11/09 16:16	JE	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 20:30	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 14:14	sll	



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

Sample Description: 6790 OW-6
Matrix: Liquid
Sampled Date/Time: 08/27/09 11:55
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6790 OW-6	Liquid	08/27/09 11:55	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/31/09 16:03	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 16:03	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 16:03	eec	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/31/09 16:03	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 16:03	eec	
Surrogate: 1,2-Dichloroethane-d4	105	% 50-150		EPA 524.2	08/31/09 16:03	eec	
Surrogate: Bromofluorobenzene	101	% 50-150		EPA 524.2	08/31/09 16:03	eec	
Surrogate: Toluene-d8	100	% 50-150		EPA 524.2	08/31/09 16:03	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 16:03	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 16:03	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 16:03	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: **A9H2980**

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
6790 OW-6	Liquid	08/27/09 11:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Chloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 16:03	eec	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/31/09 16:03	eec	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Toluene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/31/09 16:03	eec	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 16:03	eec	
Surrogate: 1,2-Dichloroethane-d4	105	% 78.5-125		EPA 624	08/31/09 16:03	eec	
Surrogate: Bromofluorobenzene	101	% 80-120		EPA 624	08/31/09 16:03	eec	
Surrogate: Toluene-d8	100	% 80-120		EPA 624	08/31/09 16:03	eec	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/02/09 12:36	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 6 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6790 OW-6	Liquid	08/27/09 11:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/02/09 12:36	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/02/09 12:36	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
a-BHC	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Aldrin	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Anthracene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
b-BHC	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Benzidine	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6790 OW-6	Liquid	08/27/09 11:55	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Benzo(b)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Benzo(ghi)perylene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Benzo(k)fluoranthene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Bis(2-chloroethoxy)methane	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Bis(2-Chloroethyl)ether	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Bis(2-chloroisopropyl)Ether	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/L	EPA 625	09/02/09 12:36	DF	
Butyl benzyl phthalate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Chlordane (screen)	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Chrysene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
d-BHC	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Di-n-butylphthalate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Di-n-octylphthalate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Dibenzo(a,h)anthracene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Dieldrin	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Diethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Dimethyl phthalate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Endosulfan I	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Endosulfan II	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Endosulfan Sulfate	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Endrin	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Fluoranthene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Fluorene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Heptachlor	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Heptachlor Epoxide	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Hexachlorobenzene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Hexachlorobutadiene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Hexachlorocyclopentadiene	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Hexachloroethane	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 8 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980
 Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2980-01

Sample Description Matrix Sampled Date/Time Received Date/Time
 6790 OW-6 Liquid 08/27/09 11:55 08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 12:36	DF	
y-BHC	ND	10	ug/L	EPA 625	09/02/09 12:36	DF	
Surrogate: 2,4,6-Tribromophenol	59.1	% 33-101		EPA 625	09/02/09 12:36	DF	
Surrogate: 2-Fluorobiphenyl	61.6	% 29-94		EPA 625	09/02/09 12:36	DF	
Surrogate: 2-Fluorophenol	37.8	% 15-52		EPA 625	09/02/09 12:36	DF	
Surrogate: 4-Terphenyl-d14	66.5	% 37-105		EPA 625	09/02/09 12:36	DF	
Surrogate: Nitrobenzene-d5	60.2	% 30-90		EPA 625	09/02/09 12:36	DF	
Surrogate: Phenol-d6	23.0	% 8-47		EPA 625	09/02/09 12:36	DF	

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 9 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2980

Report Date: 14-Sep-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6791 LW-3	Liquid	08/27/09 12:25	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	110	3.0	mg/L	SM 3120B	09/04/09 15:50	lmt	
Calcium	36	1.0	mg/L	EPA 200.7	09/04/09 15:50	lmt	
Magnesium	4.8	1.0	mg/L	EPA 200.7	09/04/09 15:50	lmt	
Sodium	100	1.0	mg/L	EPA 200.7	09/04/09 15:50	lmt	
Potassium	7.1	1.0	mg/L	EPA 200.7	09/04/09 15:50	lmt	
Anions							
Total Alkalinity	160	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Bicarbonate	200	3.0	mg/L	SM 2320B	09/08/09 16:54	je	
Chloride	64	1.0	mg/L	EPA 300.0	08/29/09 03:00	ss	
Sulfate	51	0.50	mg/L	EPA 300.0	08/29/09 03:00	ss	
Nitrate as N	11	0.20	mg/L	EPA 300.0	08/29/09 03:00	ss	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/05/09 05:16	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	09/01/09 16:36	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/11/09 16:17	JE	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/28/09 20:30	kam	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 14:16	sl	



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Analytical Report: Page 10 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6791 LW-3	Liquid	08/27/09 12:25	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/28/09 18:10	ara	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/31/09 10:46	sll	
Kjeldahl Nitrogen	ND	0.20	mg/L	EPA 351.2	09/02/09 14:25	sll	N_RLm
Metals and Metalloids							
Iron	140	50	ug/L	EPA 200.7	09/04/09 15:51	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Arsenic	9.3	5.0	ug/L	EPA 200.8	09/04/09 12:28	krv	
Barium	180	20	ug/L	EPA 200.8	09/04/09 12:28	krv	
Beryllium	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Boron	270	100	ug/L	EPA 200.7	09/04/09 15:51	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/04/09 12:28	krv	
Total Chromium	ND	20	ug/L	EPA 200.8	09/04/09 12:28	krv	
Cobalt	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Copper	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Lead	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Manganese	1300	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Mercury	ND	0.50	ug/L	EPA 200.8	09/04/09 12:28	krv	
Molybdenum	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Nickel	ND	20	ug/L	EPA 200.8	09/04/09 12:28	krv	
Selenium	ND	5.0	ug/L	EPA 200.8	09/04/09 12:28	krv	
Silver	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Thallium	ND	200	ug/L	EPA 200.8	09/04/09 12:28	krv	
Vanadium	31	10	ug/L	EPA 200.8	09/04/09 12:28	krv	
Zinc	ND	10	ug/L	EPA 200.8	09/04/09 12:28	krv	

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 EPA no. CA00102



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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6791 LW-3	Liquid	08/27/09 12:25	08/28/09 15:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	1.4	0.50	ug/L	EPA 524.2	08/31/09 16:40	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 16:40	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 16:40	eec	
Chloroform	1.4	0.50	ug/L	EPA 524.2	08/31/09 16:40	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 16:40	eec	
Surrogate: 1,2-Dichloroethane-d4	102	% 50-150		EPA 524.2	08/31/09 16:40	eec	
Surrogate: Bromofluorobenzene	100	% 50-150		EPA 524.2	08/31/09 16:40	eec	
Surrogate: Toluene-d8	101	% 50-150		EPA 524.2	08/31/09 16:40	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 16:40	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 16:40	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 16:40	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	

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Environmental Laboratories *est 1906*

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Address: 15776 Main St. Suite 3
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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6791 LW-3	Liquid	08/27/09 12:25	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 624							
Chloroform	1.4	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Chloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 16:40	eec	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/31/09 16:40	eec	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Toluene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/31/09 16:40	eec	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/31/09 16:40	eec	
Surrogate: 1,2-Dichloroethane-d4	102	% 78.5-125		EPA 624	08/31/09 16:40	eec	
Surrogate: Bromofluorobenzene	100	% 80-120		EPA 624	08/31/09 16:40	eec	
Surrogate: Toluene-d8	101	% 80-120		EPA 624	08/31/09 16:40	eec	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/02/09 13:07	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/02/09 13:07	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/02/09 13:07	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/02/09 13:07	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/02/09 13:07	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/02/09 13:07	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/02/09 13:07	DF	

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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

Sample Description: 6791 LW-3
Matrix: Liquid
Sampled Date/Time: 08/27/09 12:25
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

Sample Description: 6791 LW-3
Matrix: Liquid
Sampled Date/Time: 08/27/09 12:25
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Analytical Report: Page 15 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-02

Sample Description: 6791 LW-3
Matrix: Liquid
Sampled Date/Time: 08/27/09 12:25
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625 and various surrogate compounds like 2,4,6-Tribromophenol.

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Analytical Report: Page 16 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

Sample Description: 6792 LW-2
Matrix: Liquid
Sampled Date/Time: 08/28/09 12:55
Received Date/Time: 08/28/09 15:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Cations (Total Hardness, Calcium, Magnesium, Sodium, Potassium), Anions (Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Chloride, Sulfate, Nitrate as N), Aggregate Organic Compounds (Total Organic Carbon, Total Petroleum Hydrocarbons, Phenols), Surfactants (MBAS), and General Inorganics (Cyanide).

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Analytical Report: Page 17 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

Sample Description: 6792 LW-2
Matrix: Liquid
Sampled Date/Time: 08/28/09 12:55
Received Date/Time: 08/28/09 15:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6792 LW-2	Liquid	08/28/09 12:55	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	2.2	0.50	ug/L	EPA 524.2	08/31/09 17:17	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 17:17	eec	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/31/09 17:17	eec	
Chloroform	2.0	0.50	ug/L	EPA 524.2	08/31/09 17:17	eec	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/31/09 17:17	eec	
Surrogate: 1,2-Dichloroethane-d4	102	% 50-150		EPA 524.2	08/31/09 17:17	eec	
Surrogate: Bromofluorobenzene	101	% 50-150		EPA 524.2	08/31/09 17:17	eec	
Surrogate: Toluene-d8	100	% 50-150		EPA 524.2	08/31/09 17:17	eec	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/31/09 17:17	eec	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 17:17	eec	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/31/09 17:17	eec	
Benzene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Bromoform	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Bromomethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	
Chloroethane	ND	0.50	ug/L	EPA 624	08/31/09 17:17	eec	

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK & Sons, Inc.

Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2980

Report Date: 14-Sep-2009

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

Sample Description: 6792 LW-2
Matrix: Liquid
Sampled Date/Time: 08/28/09 12:55
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Volatile Organic Compounds by EPA 624 (Chloroform, Chloromethane, etc.) and Semivolatile Organic Compounds by EPA 625 (2,3,7,8-TCDD, 1,2,4-Trichlorobenzene, etc.).

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

Sample Description: 6792 LW-2
Matrix: Liquid
Sampled Date/Time: 08/28/09 12:55
Received Date/Time: 08/28/09 15:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and RDL values.

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



E.S.BABCOCK&Sons,Inc.

Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980
Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number
A9H2980-03

Sample Description: 6792 LW-2
Matrix: Liquid
Sampled Date/Time: 08/28/09 12:55
Received Date/Time: 08/28/09 15:00

Table with 7 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 22 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 14-Sep-2009

Work Order Number: A9H2980

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9H2980-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6792 LW-2	Liquid	08/28/09 12:55	08/28/09 15:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/02/09 14:09	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Phenol	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Pyrene	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/02/09 14:09	DF	
γ-BHC	ND	10	ug/L	EPA 625	09/02/09 14:09	DF	
Surrogate: 2,4,6-Tribromophenol	60.8	% 33-101		EPA 625	09/02/09 14:09	DF	
Surrogate: 2-Fluorobiphenyl	58.6	% 29-94		EPA 625	09/02/09 14:09	DF	
Surrogate: 2-Fluorophenol	31.6	% 15-52		EPA 625	09/02/09 14:09	DF	
Surrogate: 4-Terphenyl-d14	58.2	% 37-105		EPA 625	09/02/09 14:09	DF	
Surrogate: Nitrobenzene-d5	60.5	% 30-90		EPA 625	09/02/09 14:09	DF	
Surrogate: Phenol-d6	19.8	% 8-47		EPA 625	09/02/09 14:09	DF	

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NELAP no. 02101CA
 CA ELAP no. 2698
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 23 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 14-Sep-2009

Work Order Number: A9H2980
 Received on Ice (Y/N): Yes Temp: 8 °C

Notes and Definitions

- N_RLm Due to sample matrix, the reporting limit has been raised.
- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

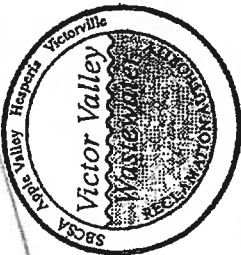
Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Alison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: geloutier@vvwwra.com

Project Name: Annual Groundwater Monitoring Wells			Laboratory Analyses Requested										Sample Preservation Methods				Sample Matrix (WW, DW, GW, SG)														
VWVRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type		MBAS	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Chloride & Sulfate	Alkalinity	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)	Cyanide		Phenols	EPA 625 (BNA) w/Dioxin	EPA 624 w/MTBE	Metals & Hardness	Total # of Containers	Refrigeration	H ₂ SO ₄ pH<	HNO ₃ pH<	Na ₂ S ₂ O ₃	NaOH pH>12	HCl			
				Grab	Composite																										
6790	OW-6	8-27-09	1:55	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2	1	2	GW
6791	LW-3	8-27-09	12:05	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2	1	2	GW
6792	LW-2	8-27-09	12:55	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	3	4	1	2	1	2	1	2	GW

Relinquished By (Sign):	Received By (Sign):	Date/Time:	Relinquished By (Sign):	Received By (Sign):	Date/Time:
<i>[Signature]</i> Print: <u>Chen Will</u> Company: <u>VWVRA</u>	<i>[Signature]</i> Print: <u>Gina Cloutier</u> Company: <u>VVWRA</u>	8-27-09 13:12	<i>[Signature]</i> Print: <u>Gina Cloutier</u> Company: <u>VVWRA</u>	<i>[Signature]</i> Print: <u>J. Mendez</u> Company: <u>D.F.</u>	8/28/09 12:15
<i>[Signature]</i> Print: <u>J. Mendez</u> Company: <u>D.F.</u>	<i>[Signature]</i> Print: <u>Angie Brown</u> Company: <u>J.F.S.B.</u>	8/28/09 15:00	<i>[Signature]</i> Print: <u>Angie Brown</u> Company: <u>J.F.S.B.</u>	<i>[Signature]</i> Print: <u>Angie Brown</u> Company: <u>J.F.S.B.</u>	8/28/09 15:00

Sample Condition Upon Receipt by Laboratory:	Temperature
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8 °C
Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Print: Aug 28 2009
 Company: AGILCO
 Samples sent via courier to:
 E.S. Babcock Laboratories



E.S.BABCOCK & Sons, Inc.
 Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 1 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 25-Nov-2009

Work Order Number: A9K1699

Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9K1699-01	Trip Blank #7693	Liquid	11/16/09 07:27	GC/AW	11/17/09 14:10	Courier (J. Mendez)
A9K1699-02	Equipment Blank #7694	Liquid	11/16/09 08:36	GC/AW	11/17/09 14:10	Courier (J. Mendez)
A9K1699-03	SP-3 #7695	Liquid	11/16/09 09:06	GC/AW	11/17/09 14:10	Courier (J. Mendez)
A9K1699-04	SP-3 Duplicate #7696	Liquid	11/16/09 09:07	GC/AW	11/17/09 14:10	Courier (J. Mendez)



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 2 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 25-Nov-2009

Work Order Number: A9K1699

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9K1699-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Trip Blank #7693	Liquid	11/16/09 07:27	11/17/09 14:10

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
-------------------	---------------	------------	--------------	---------------	----------------------	----------------	-------------

Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	11/24/09 02:28	krv	



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 3 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Work Order Number: A9K1699

Report Date: 25-Nov-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9K1699-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
Equipment Blank #7694	Liquid	11/16/09 08:36	11/17/09 14:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds Total Organic Carbon	ND	0.70	mg/L	SM 5310B	11/24/09 02:28	krv	



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 4 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 25-Nov-2009

Work Order Number: A9K1699

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9K1699-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
SP-3 #7695	Liquid	11/16/09 09:06	11/17/09 14:10

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Aggregate Organic Compounds Total Organic Carbon	1.3	0.70	mg/L	SM 5310B	11/24/09 02:28	krv	



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 5 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 25-Nov-2009

Work Order Number: A9K1699

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9K1699-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
SP-3 Duplicate #7696	Liquid	11/16/09 09:07	11/17/09 14:10

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Aggregate Organic Compounds							
Total Organic Carbon	1.4	0.70	mg/L	SM 5310B	11/24/09 02:28	krv	

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NELAP no. 02101CA
 CA ELAP no. 2698
 EPA no. CA00102



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Environmental Laboratories est 1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 6 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 25-Nov-2009

Work Order Number: A9K1699

Received on Ice (Y/N): Yes Temp: 7 °C

Notes and Definitions

- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
NR: Not Reported
RDL: Reportable Detection Limit
MDL: Method Detection Limit

*/ (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Lorenzo Rodriguez (signature)

- [X] Lorenzo Rodriguez Project Manager
[] Allison Mackenzie General Manager
[] Lawrence J. Chrystal Laboratory Director

cc:

ESB_Short_Report



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 Environmental Laboratories est 1906

9100 Quail Valley Court Riverside, CA 92507
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 www.babcocklabs.com

Chain of Custody & Sample Information Record

Client: Verde Valley Water Reclamation Authority Contact: John Anderson Fax No. 761-442-5000

Phone No. 760-246-6438 x216 or 219 email: john@verdeva.com

Project Name: Groundwater Monitoring Network Turn Around Time: Routine *72 Hour Rush *48 Hour Rush *24 Hour Rush

Project Location: SP-3 (Sample TDS) *Lab TAT Approval: By: [Signature] *Additional Charges Apply

Additional Reporting Requests
 Include QC Data Package: Yes No
 FAX Results: Yes No
 Email Results: Yes No
 State EDT: Yes No
 (Include Source Number in Notes)

Sample ID	Date	Time	# of Containers & Preservatives								Total # of Containers	Sample Type			Analysis Requested	Matrix	Notes
			Unpreserved	H ₂ SO ₄	HCl	HNO ₃	Na ₂ S ₂ O ₃	NaOH	NaOH/Zn Acetate	NH ₄ Cl		MCAA	Routine	Resample			
Trip Blank # 91093	11/16/09	0830L	X								1	X			DW		
Equipment Blank # 91094	11/16/09	0830L	X								1	X			DW		
SP-3 # 91095	11/16/09	0830L	X								1	X			DW		
SP-3 duplicate # 91096	11/16/09	0830L	X								1	X			DW		

Relinquished By (sign) [Signature] Print Name / Company Verde Valley Water Date / Time 11-16-09 11:15 Received By (sign) [Signature] Print Name / Company [Signature]

(For Lab Use Only) Sample Integrity Upon Receipt Lab Notes

Sample(s) Submitted on Ice? Yes No Temperature 7 °C
 Custody Seal(s) Intact? Yes No
 Sample(s) Intact? Yes No Cooler Blank

Lab No. AK10910 Page 1
 NOV 17 2009 Rev. 8/07

WELL GAUGING DATA

Project # 091116-AW1 Date 11-16-09 Client VVWRA

Site VVWRA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
SP-3	0839	4					41.26	77.73	TOL	

WELL MONITORING DATA SHEET

Project #: 091116-AW1	Client: AVRA VVWVRA
Sampler: AW	Date: 11-16-09
Well I.D.: SP-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 77.73	Depth to Water (DTW): 41.26
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 48.55	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Water Peristaltic Extraction Pump <u>Other: 2" Grundfos</u>	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing <u>Other: New Tubing</u>
--	--	---

$$\frac{23.8 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{71.4 \text{ Gals.}}{\text{Specified Volumes}} \text{ Calculated Volume}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0851	19.63	7.01	675	7	24	
0855	23.96	6.91	664	5	48	
0901	23.76	6.99	662	2	72	

Did well dewater? Yes No Gallons actually evacuated: 72

Sampling Date: 11-16-09 Sampling Time: 0906 Depth to Water: 41.26

Sample I.D.: SP-3 #7695 Laboratory: Kiff CalScience Other

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: Se COC

EB I.D. (if applicable): Equipment Blank #7695 @ 0836 Duplicate I.D. (if applicable): 0907 SP-3 Duplicate #7696

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SECTION 8

SURFACE MONITORING

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VWRA
Surface Water Monitoring
Quarterly
2009

UPSTREAM

Sample Date	pH (pH Units)	Temperature (° C)	Turbidity (NTU)	Chlorine Residual (mg/L)	Dissolved Oxygen (mg/L)	Total Coliform (mpn/100 mL)	Ammonia as N (mg/L)	Nitrite as N (mg/L)	Nitrate as N (mg/L)	TKN (mg/L)	T.D.S. (mg/L)	Trihalo-Methanes (mg/L)	Total Hardness (mg/L)	Haloacetic Acids (mg/L)	Ortho-Phosphate (mg/L P)
01/06/09	8.4	7.8	0.00	<0.010	9.1	75	<0.10	<0.10	0.23	0.1	420	<0.5000	138.1	<5.00	0.11
04/07/09	8.3	15.3	1.50	<0.010	7.1	170	<0.10	<0.10	<0.20	0.3	436	<0.5000	142.7	<5.00	0.13
07/07/09	7.4	23.8	0.00	<0.010	3.0	240	<0.10	<0.10	<0.20	0.3	501	<0.5000	83.2	<5.00	0.31
10/13/09	7.3	15.3	1.10	<0.010	5.0	500	<0.10	<0.10	<0.20	0.2	498	<0.5000	180.0	<5.00	0.16

DOWNSTREAM

Sample Date	pH (pH Units)	Temperature (° C)	Turbidity (NTU)	Chlorine Residual (mg/L)	Dissolved Oxygen (mg/L)	Total Coliforms (mpn/100 mL)	Ammonia as N (mg/L)	Nitrite as N (mg/L)	Nitrate as N (mg/L)	TKN (mg/L)	T.D.S. (mg/L)	Trihalo-Methanes (mg/L)	Total Hardness (mg/L)	Haloacetic Acids (mg/L)	Ortho-Phosphate (mg/L)
01/06/09	7.70	10.0	0.00	0.014	7.94	9000	<0.10	<0.10	4.60	0.56	430	5.0	71.1	<5.0	0.37
04/07/09	7.75	13.1	0.00	<0.010	6.74	1600	<0.10	<0.10	2.60	0.53	448	3.5	81.8	<5.0	0.39
07/07/09	7.50	19.4	0.00	<0.010	5.30	500	<0.10	<0.10	2.20	0.80	478	1.9	141.5	<5.0	1.20
10/13/09	7.31	16.2	0.80	0.010	5.30	500	<0.10	<0.10	1.70	0.46	473	2.3	99.0	<5.0	0.80

SECTION 11

**ANNUAL
RECYCLED WATER
MONITORING REPORT**

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Victor Valley
Wastewater Reclamation Authority
A joint Powers Authority and Public Agency of the State of California

20111 Shay Road Victorville California 92394
Telephone (760) 246-8638 Fax (760) 246-5194
E-mail: mail@vwwra.com

February 24, 2010

Mr. Harold Singer, Executive Officer
Lahontan Regional Water Quality Control Board
14440 Civic Drive, Suite 200
Victorville, CA 92392

RE: Annual Recycled Water Monitoring Report for Calendar Year 2009
Water Recycling Requirements for the Westwinds Golf Course at SCLA
Board Order No. RV6-2003-028, RWQCB WDID No. 6B360207001

Dear Mr. Singer:

Enclosed please find the 2009 Annual SCLA Recycled Water Monitoring Report for the Victor Valley Wastewater Reclamation Authority. This report includes narrative and tabular data of operational parameters reported during calendar year 2009, as well as the results of annual testing required by the Waste Discharge Requirements.

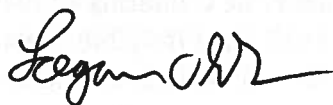
During 2009 a total of 124.84 million gallons (383 acre-feet) of recycled water were delivered for irrigation needs at Westwinds. The recycled water was pumped into a storage pond at Westwinds for use on the golf course. Samples were collected quarterly from the storage pond and analyzed for total dissolved solids. Pond freeboard was measured and reported at least weekly.

Monthly static water elevations were collected at upgradient monitoring well NZ-119, downgradient monitoring wells NZ-91 and NZ-123, and storage pond monitoring well NZ-120. Groundwater samples were collected and analyzed for the required parameters during January and August.

Recycled water has been pumped to the Westwinds golf course pond using two 250-HP 4-stage pumps with variable frequency drive (VFD) units and fully-automated controls.

If you should have any further questions, please feel free to contact me at your convenience.

Sincerely,



Logan Olds
General Manager

Attachments

cc: **SWRCB Discharge Monitoring Report Processing Center**
Jon Roberts, City Manager, City of Victorville
Gilbert Perez, Director of Operations
Marce Delaney, Pretreatment & Regulatory Compliance Supervisor
Operations/Control Room Posting

Date February 24, 2010

California Regional Water Quality Control Board
Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392

Facility Name: Victor Valley Wastewater Reclamation Authority

Address: 2011 Shay Road
Victorville, CA 92394

Contact Person: Logan Olds

Job Title: General Manager

Phone: (760) 246-8638

Email: lolds@vwwra.com

WDR/NPDES Order Number: R6V-2003-028 (SCLA Reclamation)

WDID Number: 6B360207001

Type of Report (circle one): Monthly Quarterly Semi-Annual Other

Month(s) (circle applicable month(s)*: FEB MAR APR MAY JUN
JUL AUG SEP OCT NOV DEC
*annual Reports (circle the first month of the reporting period)

Year: 2009

Violation(s)? (Please check one): X NO YES*

***If YES is marked complete a-g (Attach Additional information as necessary)**

a) Brief Description of Violation: _____

b) Section(s) of WDRs/NPDES Permit Violated: _____

c) Reported Value(s) or Volume:

d) WDRs/NPDES

Limit/Condition:

e) Date(s) and Duration of Violation(s):

f) Explanation of Cause(s):

g) Corrective Action(s)

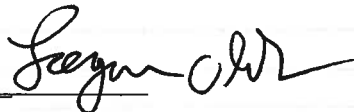
(Specify actions taken and a schedule for actions to be taken):

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or require additional information, please contact Logan Olds or Gilbert Perez at the number provided above.

Sincerely,

Signature:



Name: Logan Olds

Title: General Manager

WESTWIND GOLF COURSE
 Recycled Water Flow Report
 2009

Date	January		February		March		April		May		June	
	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)
1	0.00	0.00	0.40	2.40	0.39	2.50	0.36	2.37	0.00	0.00	0.49	2.24
2	0.00	0.00	0.35	2.15	0.00	0.00	0.36	2.24	0.40	2.49	0.47	2.21
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	1.94	0.24	2.23
4	0.34	0.00	0.35	2.15	0.39	2.54	0.39	2.54	0.38	2.20	0.43	2.32
5	0.00	0.00	0.00	0.00	0.00	0.00	0.34	1.94	0.41	2.20	0.45	2.26
6	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.06	0.43	2.43	0.45	2.03
7	0.00	0.00	0.00	0.00	0.00	0.00	0.37	2.41	0.00	2.25	0.45	2.02
8	0.00	0.00	0.00	0.00	0.40	2.54	0.34	2.10	0.89	2.30	0.46	2.23
9	0.00	0.00	0.00	0.00	0.00	0.00	0.35	2.11	0.44	2.02	0.47	2.27
10	0.00	0.00	0.00	0.00	0.36	2.14	0.34	2.02	0.45	2.04	0.46	2.24
11	0.39	2.51	0.00	0.00	0.34	1.92	0.00	0.00	0.47	2.27	0.48	2.11
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	2.49	0.00	0.00
13	0.00	0.00	0.00	0.62	0.00	0.00	0.42	2.17	0.51	2.44	0.47	2.25
14	0.37	2.55	0.00	0.00	0.00	0.00	0.34	2.13	0.50	2.44	0.00	3.58
15	0.00	0.00	0.00	0.00	0.38	2.39	0.34	2.24	0.50	2.40	0.91	1.76
16	0.00	0.00	0.00	0.00	0.37	2.40	0.03	2.38	0.48	1.99	0.46	1.88
17	0.00	0.00	0.00	0.00	0.38	2.47	0.59	2.24	0.48	2.03	0.45	1.71
18	0.36	0.00	0.00	0.00	0.00	0.00	0.36	2.17	0.54	2.31	0.47	1.89
19	0.00	1.99	0.01	0.00	0.39	2.42	0.34	2.05	0.54	2.35	0.47	1.84
20	0.00	0.00	0.00	0.00	0.00	3.58	0.36	2.26	0.51	2.45	0.45	1.74
21	0.39	0.00	0.00	2.40	0.00	0.00	0.41	2.26	0.49	2.38	0.45	1.64
22	0.00	2.58	0.00	0.00	0.39	2.49	0.45	2.53	0.49	2.49	0.47	1.86
23	0.00	0.00	0.00	0.00	0.35	2.13	0.13	2.37	0.46	1.97	0.49	2.04
24	0.00	0.00	0.42	2.54	0.36	2.24	0.39	2.50	0.45	2.00	0.48	1.71
25	0.34	1.99	0.00	0.00	0.35	2.19	0.36	2.13	0.46	2.02	0.49	1.95
26	0.00	0.00	0.00	0.00	0.37	2.46	0.36	1.98	0.48	2.38	0.50	1.95
27	0.00	0.00	0.02	0.00	0.34	2.10	0.36	2.13	0.55	2.21	0.50	2.10
28	0.37	2.43	0.00	0.00	0.33	1.98	0.36	2.20	0.48	2.31	0.54	1.72
29	0.00	0.00	0.33	2.01	0.33	2.01	0.36	2.19	0.48	2.88	0.59	2.20
30	0.00	0.00	0.34	2.19	0.34	2.19	0.38	2.24	0.46	2.02	0.58	1.85
31	0.00	0.00	0.00	2.20	0.00	2.20	0.00	0.00	0.46	2.05	0.00	0.00
TOTAL (mg)	2.56		1.55	2.54	6.56	3.58	9.53	2.54	14.07	2.88	13.62	
Average (mgd)	0.08		0.06	0.08	0.22	0.40	0.32	0.45	0.45	0.45	0.45	3.58
Maximum (mgd)	0.39		0.42	2.54	0.40	3.58	0.59	2.54	0.89	2.88	0.91	
Acre Feet/month	7.86		4.76		20.14		29.26		43.19		41.81	

WESTWINDS GOLF COURSE
Recycled Water Flow Report
2009

Date	July		August		September		October		November		December	
	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)	Reclaimed Flow to SCLA (mgd)	Peak (MGD)
1	0.55	2.02	0.59	2.28	0.56	2.28	0.46	2.57	0.53	3.05	0.06	0.00
2	0.60	2.32	0.57	2.08	0.56	2.02	0.00	0.00	0.46	1.83	0.50	3.58
3	0.53	2.24	0.57	2.23	0.51	1.88	0.47	2.31	0.03	0.00	0.04	0.00
4	0.51	2.03	0.61	2.28	0.51	2.42	0.00	0.00	0.50	2.98	0.04	0.00
5	0.52	2.04	0.60	2.35	0.50	2.26	0.44	2.88	0.45	2.01	0.14	0.00
6	0.56	2.35	0.57	2.25	0.47	2.01	0.43	2.05	0.02	0.00	0.53	2.62
7	0.60	2.29	0.57	2.26	0.46	2.03	0.00	0.00	0.05	0.00	0.02	0.00
8	0.55	2.54	0.56	2.09	0.51	2.47	0.53	2.65	0.49	2.44	0.06	0.00
9	0.55	2.23	0.57	2.08	0.51	2.46	0.02	0.85	0.48	2.25	0.14	0.00
10	0.55	2.28	0.60	2.23	0.53	2.57	0.06	1.17	0.04	0.00	0.14	0.00
11	0.54	2.23	0.59	2.55	0.51	2.29	0.51	1.96	0.04	0.00	0.11	0.00
12	0.53	2.06	0.60	2.29	0.50	2.47	0.45	2.05	0.53	3.20	0.06	0.00
13	0.54	2.25	0.61	2.36	0.45	1.99	0.08	2.88	0.02	0.00	0.05	0.00
14	0.61	2.31	0.60	2.32	0.48	2.29	0.56	2.95	0.03	0.00	0.04	0.00
15	0.62	2.33	0.57	2.65	0.00	0.00	0.50	2.95	0.48	2.98	0.01	0.00
16	0.62	2.40	0.57	2.04	0.54	2.50	0.05	2.96	0.01	0.00	0.07	0.00
17	0.59	2.41	0.59	2.28	0.48	2.37	0.08	2.98	0.08	0.00	0.03	0.00
18	0.60	2.00	0.59	2.26	0.48	2.42	0.58	3.60	0.51	2.38	0.26	2.39
19	0.57	2.09	0.57	2.28	0.46	2.22	0.56	2.94	0.03	0.00	0.02	0.00
20	0.60	2.36	0.56	2.28	0.45	2.04	0.07	2.87	0.05	0.00	0.39	1.62
21	0.69	2.46	0.56	2.62	0.47	2.37	0.51	3.01	0.02	0.00	0.01	0.00
22	0.62	2.35	0.51	2.06	0.45	2.32	0.49	2.99	0.50	3.22	0.00	0.00
23	0.63	2.33	0.51	2.04	0.47	2.43	0.09	1.09	0.02	0.00	0.08	0.00
24	0.59	2.25	0.54	2.24	0.48	2.40	0.07	2.86	0.50	2.81	0.05	0.00
25	0.59	2.20	0.55	2.29	0.46	2.21	0.52	2.83	0.03	0.00	0.05	0.00
26	0.59	2.09	0.56	2.30	0.46	2.21	0.47	1.98	0.06	0.00	0.01	0.00
27	0.62	2.26	0.57	2.39	0.46	2.04	0.00	0.00	0.21	0.00	0.47	2.17
28	0.63	2.37	0.57	2.37	0.45	2.33	0.01	0.00	0.03	0.00	0.00	0.00
29	0.60	2.24	0.56	2.26	0.45	2.35	0.48	2.36	0.49	3.01	0.04	0.00
30	0.60	2.25	0.53	2.05	0.00	0.00	0.01	0.75	0.02	0.00	0.00	0.00
31	0.58	2.13	0.56	2.34	0.00	0.00	0.02	1.64	0.02	0.00	0.06	0.00
TOTAL (mg)	18.08		17.70		13.59		8.54		6.70		3.46	
Average (mgd)	0.58		0.57		0.45		0.28		0.22		0.11	
Maximum (mgd)	0.69	2.54	0.61	2.65	0.56	2.57	0.58	3.60	0.53	3.22	0.53	3.58
Acres Feet/month	55.51		54.34		41.72		26.22		20.57		10.62	

TOTAL	
MG/Year	115.95
Acres Feet/Year	355.97

WESTWINDS GOLF COURSE
Recycled Water Monitoring Schedule
2009

Parameter	Station	Units	Type of Sample	Frequency
Flow	Final Effluent Station	mgd	continuous	continuous
Turbidity	Chlorine Contact Tank	NTU	continuous	continuous
Chlorine Residual	Chlorine Contact Tank (effluent prior to dechloronation)	mg/L	continuous	continuous
CT	Chlorine Contact Tank	mg-minutes/L	Calculated	Daily
Total Coliform	Chlorine Contact Tank	MPN/100 mL	Grab	Daily
pH	SMBS	pH Units	Grab	Daily
Dissolved Oxygen	Chlorine Contact Tank	mg/L	Grab	Weekly
Total Dissolved Solids (TDS)	Storage Pond	mg/L	Grab	Quarterly

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

FEBRUARY

Date	Recycled Flow			Turbidity			Chlorine Residual		Total Coliform		Modal CT Value			pH		Weekly		Quarterly	
	Flow mgd	Peak mgd	24 HR ntu	Daily Max ntu	> 5 ntu % of day	Daily Min mg/L	Daily Max mg/L	Min minutes	Max minutes	Min CT Mg/min/L	Max CT Mg/min/L	Min minutes	Max minutes	Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L	
1.00	0.40	2.40	1.04	1.30	0.00	3.70	4.80	126.00	141.00	464.00	678.00	126.00	141.00	464.00	678.00	6.54			
2.00	0.35	2.15	0.90	1.10	0.00	3.60	4.90	132.00	149.00	475.00	729.00	132.00	149.00	475.00	729.00	6.67			
3.00	0.00	0.00	0.83	1.00	0.00	3.60	5.10	125.00	143.00			125.00	143.00			6.80			
4.00	0.35	2.15	0.82	0.00	0.00	4.40	5.20	126.00	130.00	554.00	676.00	126.00	130.00	554.00	676.00	6.65			
5.00	0.00	0.00	0.84	1.00	0.00	4.60	5.50	123.00	132.00			123.00	132.00			6.56			
6.00	0.00	0.00	0.82	1.40	0.00	3.70	4.80	122.00	131.00			122.00	131.00			6.55			
7.00	0.00	0.00	0.84	9.90	0.00	5.20	5.80	109.00	125.00			109.00	125.00			6.58			
8.00	0.00	0.00	0.81	1.00	0.00	4.40	4.90	118.00	145.00			118.00	145.00			6.61			
9.00	0.00	0.00	0.79	1.00	0.00	5.30	4.60	111.00	139.00			111.00	139.00			6.64			
10.00	0.00	0.00	0.81	0.90	0.00	5.30	5.50	122.00	138.00			122.00	138.00			6.58			
11.00	0.00	0.00	0.84	0.90	0.00	3.90	4.90	115.00	143.00			115.00	143.00			6.67			
12.00	0.00	0.00	0.85	1.20	0.00	3.90	5.00	112.00	159.00			112.00	159.00			6.68	6.80		
13.00	0.00	0.62	0.89	1.10	0.00	3.90	5.20	117.00	141.00			117.00	141.00			6.72			
14.00	0.00	0.00	0.90	2.00	0.00	4.90	4.20	124.00	132.00			124.00	132.00			6.72			
15.00	0.00	0.00	1.00	1.40	0.00	5.20	4.60	120.00	133.00			120.00	133.00			6.70			
16.00	0.00	0.00	1.00	1.40	0.00	3.70	4.80	112.00	133.00			112.00	133.00			6.79			
17.00	0.00	0.00	1.00	1.20	0.00	4.00	4.60	125.00	141.00			125.00	141.00			6.73			
18.00	0.00	0.00	1.00	1.10	0.00	5.30	4.60	128.00	152.00	460.00	805.00	128.00	152.00	460.00	805.00	6.80	7.12		
19.00	0.01	0.00	0.96	9.90	0.00	3.60	5.30	123.00	142.00			123.00	142.00			6.75			
20.00	0.00	0.00	0.94	1.30	0.00	4.00	4.20	116.00	141.00			116.00	141.00			6.77			
21.00	0.00	2.40	1.27	9.90	0.00	4.00	5.80	128.00	136.00			128.00	136.00			6.74			
22.00	0.00	0.00	1.02	1.20	0.00	3.70	4.00	128.00	148.00			128.00	148.00			6.73			
23.00	0.00	0.00	1.00	1.20	0.00	4.30	4.80	125.00	143.00			125.00	143.00			6.78			
24.00	0.42	2.54	1.13	1.40	0.00	3.60	4.40	124.00	145.00			124.00	145.00			6.84			
25.00	0.00	0.00	1.21	1.90	0.00	3.70	4.70	127.00	134.00			127.00	134.00			8.28			
26.00	0.00	0.00	1.39	9.90	0.00	3.70	4.90	129.00	124.00			129.00	124.00			6.71			
27.00	0.02	0.00	1.26	1.70	0.00	4.30	5.40	126.00	138.00			126.00	138.00			6.73			
28.00	0.00	0.00	1.00	1.20	0.00	4.30	4.30												
TOTAL	1.55																		
AVG	0.06		0.97	2.45		4.22	4.89	122.00	139.00	493.00	698.00	122.00	139.00	493.00	698.00	6.0-9.0	7.40		
LIMIT	1.50		2.00	10.00	5.00	3.60	4.00	90.00		450.00		90.00		450.00			1.00		
MIN	0.00	0.00	0.79	0.00	0.00	3.60	4.00	109.00	124.00	451.00	631.00	109.00	124.00	451.00	631.00	6.54	6.80		
MAX	0.42	2.54	1.39	9.90	0.00	5.30	5.80	132.00	159.00	554.00	805.00	132.00	159.00	554.00	805.00	6.84	8.28		

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

Date	Continuous			Daily				Weekly				Quarterly		
	Flow mgd	Recycled Flow Peak mgd	Turbidity Daily Max ntu	Chlorine Residual Daily Min mg/L	Chlorine Residual Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Max minutes	Modal CT Value Mg/min/L	Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.36	2.37	1.40	4.20	5.00	<2.00	116.00	136.00	488.00	681.00	6.58			
2.00	0.36	2.24	1.60	5.70	6.50	<2.00	115.00	122.00	656.00	792.00	6.73	7.85		
3.00	0.00	0.00	1.30	4.10	6.50	<2.00	118.00	128.00			6.72			
4.00	0.39	2.54	1.40	6.50	6.50	<2.00	117.00	129.00	763.00	838.00	6.67			
5.00	0.34	1.94	1.30	5.50	4.80	<2.00	118.00	133.00	651.00	638.00	6.67			
6.00	0.34	2.06	1.10	4.00	4.70	<2.00	122.00	143.00	490.00	673.00	6.69	8.00		
7.00	0.37	2.41	1.20	5.70	4.70	<2.00	118.00	130.00	672.00	611.00	6.72		400.00	
8.00	0.34	2.10	1.40	5.30	4.30	<2.00	119.00	122.00	629.00	526.00	6.66			
9.00	0.35	2.11	0.90	4.60	5.70	2.00	112.00	125.00	516.00	712.00	6.67	7.80		
10.00	0.34	2.02	0.80	8.40	8.40	<2.00	110.00	141.00	926.00	1187.00	6.61			
11.00	0.00	0.00	0.97	5.50	5.00	<2.00	118.00	126.00			6.78			
12.00	0.00	0.00	1.30	3.60	4.50	<2.00	119.00	132.00			6.62			
13.00	0.42	2.17	1.40	4.50	4.80	<2.00	117.00	134.00	525.00	645.00	6.61	7.50		
14.00	0.34	2.13	0.90	5.40	5.20	<2.00	121.00	180.00	653.00	935.00	6.65			
15.00	0.34	2.24	0.90	5.50	4.90	<2.00	123.00	130.00	677.00	637.00	6.68			
16.00	0.03	2.38	5.50	5.60	5.90	<2.00	121.00	128.00	675.00	754.00	6.71	7.92		
17.00	0.59	2.24	1.75	8.40	6.60	<2.00	122.00	310.00	1021.00	2049.00	6.75			
18.00	0.36	2.17	0.90	5.80	6.30	<2.00	116.00	140.00	673.00	882.00	6.67			
19.00	0.34	2.05	2.70	5.60	4.80	<2.00	106.00	128.00	593.00	612.00	6.82			
20.00	0.36	2.26	1.45	5.70	4.90	<2.00	122.00	144.00	698.00	707.00	6.80	7.85		
21.00	0.41	2.26	1.65	4.00	4.80	<2.00	122.00	144.00	486.00	691.00	6.71			
22.00	0.45	2.53	0.90	3.70	4.60	<2.00	122.00	139.00	452.00	638.00	6.64			
23.00	0.13	2.37	0.90	4.20	5.20	<2.00	126.00	158.00	530.00	820.00	6.60	7.50		
24.00	0.39	2.50	1.70	1.40	4.80	<2.00	155.00	306.00	217.00	1470.00	6.66			
25.00	0.36	2.13	1.40	4.00	6.00	<2.00	172.00	185.00	687.00	1109.00	6.75			
26.00	0.36	1.98	1.20	4.20	5.60	<2.00	151.00	157.00	633.00	880.00	6.76			
27.00	0.36	2.13	1.60	3.40	4.50	<2.00	131.00	146.00	447.00	657.00	6.68	7.40		
28.00	0.36	2.20	1.80	5.10	6.30	<2.00	133.00	141.00	680.00	885.00	6.58			
29.00	0.36	2.19	1.62	4.60	7.30	<2.00	141.00	173.00	650.00	1259.00	6.52			
30.00	0.38	2.24	0.90	2.90	7.50	<2.00	135.00	141.00	391.00	1061.00	6.57	7.50		
TOTAL	8.53													400.00
AVG	0.32		4.45	4.90	5.55		125.00	152.00	610.00	865.00		7.70		
LIMIT	1.50		10.00	1.40	4.30	<2.00	90.00	122.00	450.00	526.00	6.0-9.0	1.00		
MIN	0.00	0.00	1.10	8.40	8.40	2.00	106.00	310.00	217.00	2049.00	6.52	7.40		
MAX	0.59	2.54	9.90	8.40	8.40		172.00		1021.00		6.82	8.00		

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

MAY

Date	Continuous					Daily					Weekly			Quarterly	
	Flow mgd	Peak mgd	24 HR ntu	Turbidity Daily Max ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Modal CT Value Max minutes	Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.00	0.00	1.27	1.60	0.00	5.30	7.60	<2.00	128.00	135.00	758.00	1252.00	6.51		
2.00	0.40	2.49	1.03	9.90	0.00	5.90	9.50	<2.00	128.00	132.00	758.00	1252.00	6.62		
3.00	0.35	1.94	0.93	1.40	0.00	5.20	6.60	<2.00	126.00	130.00	657.00	860.00	6.64		
4.00	0.38	2.20	0.94	1.30	0.00	4.90	5.30	2.00	125.00	128.00	612.00	680.00	6.69	6.15	
5.00	0.41	2.20	0.91	1.10	0.00	5.10	5.70	<2.00	123.00	130.00	629.00	743.00	6.75		
6.00	0.43	2.43	0.89	1.10	0.00	5.00	5.70	<2.00	124.00	129.00	621.00	733.00	6.73		
7.00	0.00	2.25	0.78	1.30	0.00	4.60	6.60	<2.00	112.00	216.00			6.75	7.68	
8.00	0.89	2.30	0.75	2.90	0.00	5.70	6.40	<2.00	114.00	140.00	652.00	895.00	6.64		
9.00	0.44	2.02	0.75	1.10	0.00	5.00	5.70	<2.00	126.00	134.00	632.00	765.00	6.73		
10.00	0.45	2.04	0.67	1.20	0.00	5.20	5.80	<2.00	108.00	134.00	559.00	778.00	6.65		
11.00	0.47	2.27	0.73	2.30	0.00	4.70	5.10	<2.00	126.00	133.00	591.00	677.00	6.69	6.60	
12.00	0.53	2.49	0.77	1.40	0.00	4.40	5.20	<2.00	128.00	141.00	564.00	733.00	6.76		
13.00	0.51	2.44	0.77	9.90	0.00	4.40	5.20	<2.00	125.00	134.00	551.00	699.00	6.68		
14.00	0.50	2.44	0.71	0.90	0.00	5.00	6.00	<2.00	130.00	148.00	651.00	890.00	6.71	7.80	
15.00	0.50	2.40	0.75	1.50	0.00	5.00	5.00	<2.00	126.00	206.00	631.00	1030.00	6.69		
16.00	0.48	1.99	0.75	2.30	0.00	4.50	4.80	<2.00	136.00	147.00	610.00	708.00	6.68		
17.00	0.48	2.03	0.66	1.20	0.00	4.10	4.60	<2.00	129.00	151.00	529.00	695.00	6.68		
18.00	0.54	2.31	0.68	1.20	0.00	4.50	4.70	<2.00	127.00	132.00	573.00	619.00	6.68	7.50	
19.00	0.54	2.35	0.82	1.10	0.00	4.60	10.90	<2.00	125.00	151.00	574.00	1648.00	6.70		
20.00	0.51	2.45	0.88	2.00	0.00	5.50	5.50	<2.00	131.00	132.00	719.00	724.00	6.61		
21.00	0.49	2.38	1.00	2.20	0.00	4.40	4.90	<2.00	132.00	156.00	580.00	765.00	6.61	6.54	
22.00	0.49	2.49	1.04	3.60	0.00	5.10	5.60	<2.00	129.00	134.00	660.00	750.00	6.77		
23.00	0.46	1.97	1.00	9.90	0.00	4.90	5.70	<2.00	128.00	133.00	628.00	757.00	6.75		
24.00	0.45	2.00	0.87	1.30	0.00	4.80	5.20	<2.00	133.00	142.00	636.00	736.00	6.70	5.02	
25.00	0.46	2.02	0.86	1.20	0.00	4.30	5.20	<2.00	124.00	139.00	533.00	722.00	6.80		
26.00	0.48	2.38	0.83	4.20	0.00	4.60	5.00	<2.00	126.00	137.00	580.00	684.00	6.88		
27.00	0.55	2.21	1.22	2.20	0.00	5.10	5.50	<2.00	132.00	135.00	673.00	740.00	6.79		
28.00	0.48	2.31	1.44	9.90	0.00	4.60	5.20	<2.00	127.00	153.00	586.00	797.00	6.66	7.20	
29.00	0.48	2.88	1.38	9.90	0.00	4.70	5.20	<2.00	128.00	149.00	603.00	775.00	6.69		
30.00	0.46	2.02	1.08	9.90	0.00	5.20	5.90	<2.00	126.00	135.00	656.00	796.00	6.84		
31.00	0.46	2.05	1.19	2.10	0.00	4.60	5.20	<2.00	126.00	142.00	579.00	739.00	7.27		
TOTAL	14.07														
AVG	0.45		0.91	3.33		4.87	5.82		126.00	143.00	615.00	807.00		6.81	
LIMIT	1.50		2.00	10.00	5.00				90.00		450.00			1.00	
MIN	0.00	0.00	0.66	0.90	0.00	4.10	4.60	<2.00	108.00	128.00	529.00	619.00		6.51	
MAX	0.89	2.88	1.44	9.90	0.00	5.90	10.90	2.00	136.00	216.00	758.00	1648.00		7.80	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

JUNE

Date	Continuous			Daily				Weekly			Quarterly				
	Flow mgd	Recycled Flow Peak mgd	Turbidity Daily Max ntu	24 HR ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Max minutes	Modal CT Value Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.49	2.24	2.30	1.47	0.00	4.40	5.00	2.00	133.00	150.00	587.00	749.00	6.88	7.06	
2.00	0.47	2.21	1.80	1.47	0.00	5.20	5.30	<2.00	131.00	147.00	679.00	781.00	6.87		
3.00	0.24	2.23	9.90	1.58	0.00	5.10	5.40	<2.00	152.00	161.00	778.00	867.00	6.83		
4.00	0.43	2.32	9.90	1.18	0.00	5.40	5.50	<2.00	130.00	131.00	701.00	721.00	6.84	6.82	
5.00	0.45	2.26	1.40	1.10	0.00	6.30	6.80	2.00	117.00	178.00	740.00	1211.00	6.73		
6.00	0.45	2.03	5.50	0.91	0.00	5.90	6.20	<2.00	130.00	149.00	758.00	924.00	6.89		
7.00	0.45	2.02	1.10	0.78	0.00	4.10	5.10	<2.00	128.00	136.00	531.00	750.00	6.80		
8.00	0.46	2.23	1.10	0.91	0.00	4.30	5.60	<2.00	128.00	136.00	550.00	759.00	6.81	7.50	
9.00	0.47	2.27	1.00	0.72	0.00	6.00	6.10	<2.00	129.00	132.00	771.00	806.00	6.77		
10.00	0.46	2.24	4.30	0.75	0.00	5.50	5.90	<2.00	117.00	142.00	643.00	840.00	6.76		
11.00	0.48	2.11	1.20	0.93	0.00	5.40	7.30	<2.00	124.00	129.00	670.00	944.00	6.82	7.29	
12.00	0.00	0.00	7.20	0.83	0.00	5.60	6.40	<2.00	125.00	140.00	600.00	814.00	6.80		
13.00	0.47	2.25	7.20	0.80	0.00	4.70	5.60	<2.00	128.00	145.00	600.00	814.00	6.84		
14.00	0.00	3.58	9.90	1.13	0.00	3.20	13.00	<2.00	117.00	144.00	755.00	1288.00	6.85		
15.00	0.91	1.76	0.90	0.70	0.00	5.70	6.90	30.00	133.00	187.00	755.00	1288.00	6.79	7.00	
16.00	0.46	1.88	0.90	0.64	0.00	5.50	7.70	<2.00	126.00	177.00	693.00	1364.00	6.76		
17.00	0.45	1.71	0.80	0.67	0.00	5.80	6.50	<2.00	134.00	166.00	776.00	1078.00	6.74		
18.00	0.47	1.89	0.80	0.84	0.00	4.70	5.40	<2.00	131.00	168.00	617.00	908.00	6.77	6.87	
19.00	0.47	1.84	0.70	0.67	0.00	4.60	5.30	<2.00	132.00	163.00	605.00	865.00	6.81		
20.00	0.45	1.74	0.80	0.63	0.00	5.50	7.40	<2.00	130.00	165.00	713.00	1218.00	6.89		
21.00	0.45	1.64	0.60	0.53	0.00	3.10	5.40	<2.00	130.00	169.00	403.00	911.00	6.97		
22.00	0.47	1.86	0.80	0.52	0.00	4.90	5.80	<2.00	127.00	163.00	624.00	946.00	6.83		
23.00	0.49	2.04	0.60	0.47	0.00	5.30	5.40	<2.00	121.00	159.00	643.00	860.00	6.90	7.45	
24.00	0.48	1.71	0.60	0.52	0.00	4.80	5.40	<2.00	126.00	162.00	602.00	876.00	6.74		
25.00	0.49	1.95	0.60	0.54	0.00	6.00	6.20	<2.00	124.00	166.00	745.00	1030.00	6.76	7.30	
26.00	0.50	1.95	0.64	0.55	0.00	4.05	5.21	<2.00	158.00	194.00	639.00	1012.00	7.00		
27.00	0.50	2.10	0.69	0.52	0.00	3.54	4.66	<2.00	155.00	203.00	547.00	948.00	6.84		
28.00	0.54	1.72	0.70	0.47	0.00	4.50	5.10	<2.00	127.00	178.00	571.00	909.00	6.70		
29.00	0.59	2.20	0.50	0.45	0.00	4.80	4.90	<2.00	120.00	165.00	578.00	809.00	6.74	7.20	
30.00	0.58	1.85	0.60	0.49	0.00	4.10	4.90	<2.00	125.00	161.00	513.00	787.00	6.84		
TOTAL	13.62														
AVG	0.45		2.30	0.79		4.93	6.05		130.00	159.00	644.00	928.00		7.17	
LIMIT	1.50		10.00	2.00	5.00	3.10	4.66	<2.00	90.00	129.00	450.00	721.00		1.00	
MIN	0.00	0.00	0.50	0.45	0.00	6.30	13.00		117.00	203.00	403.00	721.00		6.82	
MAX	0.91	3.58	9.90	1.58	0.00	6.30	13.00	30.00	158.00	203.00	778.00	1364.00		7.50	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

JULY

Date	Continuous			Daily										Weekly		Quarterly
	Flow mgd	Recycled Flow Peak mgd	Turbidity Daily Max ntu	24 HR ntu	Daily Max ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Max minutes	Modal CT Value Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.55	2.02	0.70	0.50	0.70	0.00	4.70	6.10	<2.00	124.00	167.00	582.00	1019.00	6.76		
2.00	0.60	2.32	2.60	0.59	2.60	0.00	4.10	5.00	<2.00	111.00	131.00	456.00	656.00	6.75	7.08	
3.00	0.53	2.24	0.70	0.59	0.70	0.00	4.40	5.40	<2.00	125.00	165.00	549.00	890.00	6.78		
4.00	0.51	2.03	0.70	0.59	0.70	0.00	4.30	5.30	<2.00	126.00	135.00	543.00	715.00	6.91		
5.00	0.52	2.04	0.70	0.59	0.70	0.00	4.80	5.00	<2.00	124.00	130.00	596.00	652.00	6.85		
6.00	0.56	2.35	0.70	0.60	0.70	0.00	5.10	6.10	<2.00	126.00	176.00	644.00	1072.00	6.75		
7.00	0.60	2.29	0.70	0.62	0.70	0.00	4.80	5.70	2.00	126.00	132.00	604.00	753.00	6.73		
8.00	0.55	2.54	1.30	0.63	1.30	0.00	6.50	9.10	<2.00	131.00	182.00	849.00	1660.00	6.75		409.00
9.00	0.55	2.23	0.70	0.63	0.70	0.00	4.50	5.00	<2.00	127.00	177.00	573.00	886.00	6.66	7.00	
10.00	0.55	2.28	0.70	0.48	0.70	0.00	5.10	5.50	<2.00	133.00	170.00	679.00	933.00	6.65		
11.00	0.54	2.23	0.60	0.44	0.60	0.00	4.60	5.50	<2.00	133.00	175.00	610.00	961.00	6.80		
12.00	0.53	2.06	0.50	0.40	0.50	0.00	6.60	7.10	<2.00	125.00	128.00	826.00	906.00	6.60		
13.00	0.54	2.25	0.60	0.42	0.60	0.00	4.50	4.90	<2.00	125.00	167.00	563.00	819.00	6.65	7.18	
14.00	0.61	2.31	0.70	0.45	0.70	0.00	5.00	6.10	<2.00	129.00	132.00	647.00	807.00	6.66		
15.00	0.62	2.33	0.80	0.67	0.80	0.00	4.30	6.50	<2.00	131.00	144.00	562.00	935.00	6.72	6.95	
16.00	0.62	2.40	1.40	0.63	1.40	0.00	5.10	5.80	<2.00	127.00	163.00	645.00	948.00	6.68		
17.00	0.59	2.41	2.40	0.71	2.40	0.00	6.40	6.60	<2.00	125.00	172.00	802.00	1133.00	6.66		
18.00	0.60	2.00	1.20	0.55	1.20	0.00	6.40	6.60	<2.00	125.00	172.00	802.00	1133.00	6.65		
19.00	0.57	2.09	0.80	0.55	0.80	0.00	5.00	6.10	<2.00	127.00	170.00	634.00	1038.00	6.63	6.60	
20.00	0.60	2.36	0.70	0.44	0.70	0.00	4.20	5.30	<2.00	125.00	169.00	526.00	896.00	6.61		
21.00	0.69	2.46	0.70	0.55	0.70	0.00	4.50	5.20	<2.00	112.00	154.00	505.00	803.00	6.66		
22.00	0.62	2.35	1.10	0.47	1.10	0.00	5.20	6.20	<2.00	124.00	159.00	645.00	984.00	6.78	6.78	
23.00	0.63	2.33	0.80	0.59	0.80	0.00	4.50	5.00	<2.00	128.00	154.00	575.00	769.00	6.67		
24.00	0.59	2.25	1.00	0.63	1.00	0.00	4.70	5.50	<2.00	123.00	150.00	580.00	823.00	6.62		
25.00	0.59	2.20	1.00	0.58	1.00	0.00	5.40	6.60	<2.00	114.00	157.00	618.00	1037.00	6.74		
26.00	0.59	2.09	0.80	0.53	0.80	0.00	4.60	5.00	<2.00	124.00	178.00	570.00	892.00	6.77		
27.00	0.62	2.26	0.70	0.53	0.70	0.00	5.00	6.40	2.00	125.00	168.00	623.00	1076.00	6.66	6.60	
28.00	0.63	2.37	0.90	0.56	0.90	0.00	5.60	6.20	2.00	121.00	170.00	679.00	1057.00	6.79		
29.00	0.60	2.24	0.60	0.53	0.60	0.00	4.70	5.00	<2.00	127.00	172.00	599.00	860.00	6.66		
30.00	0.60	2.25	1.10	0.62	1.10	0.00	4.90	5.10	<2.00	127.00	155.00	621.00	793.00	6.72		
31.00	0.58	2.13	0.80	0.58	0.80	0.00	5.10	5.60	<2.00	127.00	154.00	646.00	864.00	6.69		
TOTAL	18.08															409.00
AVG	0.58		0.98	0.56			4.99	5.82		125.00	159.00	624.00	928.00		6.88	
LIMIT	1.50		10.00	2.00		5.00				90.00		450.00			1.00	
MIN	0.51	2.00	0.50	0.40	0.50	0.00	4.10	4.90	<2.00	111.00	128.00	456.00	652.00	6.60	6.60	
MAX	0.69	2.54	2.60	0.71	2.60	0.00	6.60	9.10	2.00	133.00	182.00	849.00	1660.00	6.91	7.18	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

AUGUST

Date	Continuous				Daily				Weekly		Quarterly				
	Flow mgd	Recycled Flow Peak mgd	24 HR ntu	Turbidity Daily Max ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Modal CT Value Max minutes	Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.59	2.08	0.60	0.70	0.00	4.70	5.10	<2.00	128.00	147.00	602.00	748.00	6.70		
2.00	0.57	2.08	0.59	0.70	0.00	6.44	8.71	<2.00	124.00	173.00	824.00	1507.00	6.67		
3.00	0.57	2.23	0.62	1.00	0.00	4.20	5.10	<2.00	128.00	168.00	520.00	859.00	6.71	6.85	
4.00	0.61	2.28	0.61	5.30	0.00	6.80	5.20	<2.00	128.00	199.00	867.00	1033.00	6.79		
5.00	0.60	2.35	0.58	0.80	0.00	4.70	5.20	<2.00	127.00	165.00	596.00	860.00	6.71		
6.00	0.57	2.25	0.61	0.70	0.00	4.40	5.20	<2.00	123.00	160.00	542.00	830.00	6.73	6.71	
7.00	0.57	2.26	0.63	0.70	0.00	4.30	5.00	<2.00	129.00	151.00	553.00	757.00	6.70		
8.00	0.56	2.09	0.66	1.20	0.00	4.50	5.10	<2.00	129.00	151.00	579.00	771.00	6.83		
9.00	0.57	2.08	0.65	1.30	0.00	4.70	5.00	<2.00	128.00	197.00	602.00	985.00	6.62		
10.00	0.60	2.23	0.68	0.80	0.00	6.40	5.10	<2.00	128.00	191.00	820.00	973.00	6.68		
11.00	0.59	2.55	0.67	0.80	0.00	4.50	4.80	<2.00	128.00	193.00	574.00	926.00	6.73	7.26	
12.00	0.60	2.29	0.63	0.80	0.00	6.00	5.00	<2.00	126.00	154.00	758.00	771.00	6.67		
13.00	0.61	2.36	0.62	0.70	0.00	5.00	5.30	<2.00	124.00	152.00	620.00	805.00	6.81	6.75	
14.00	0.60	2.32	0.58	0.70	0.00	4.60	5.00	<2.00	128.00	151.00	588.00	756.00	6.72		
15.00	0.57	2.65	0.66	10.40	0.00	1.80	7.20	<2.00	98.00	156.00	176.00	1121.00	6.69		
16.00	0.57	2.04	0.65	1.30	0.00	5.50	5.50	<2.00	124.00	172.00	681.00	945.00	6.63		
17.00	0.59	2.28	0.68	1.00	0.00	5.30	6.00	<2.00	121.00	137.00	642.00	825.00	6.55		
18.00	0.59	2.26	0.61	0.90	0.00	6.20	5.50	<2.00	119.00	154.00	739.00	844.00	6.56		
19.00	0.57	2.28	0.68	0.80	0.00	4.70	5.90	<2.00	114.00	143.00	537.00	846.00	6.53	6.19	
20.00	0.56	2.28	0.68	0.90	0.00	6.40	5.30	<2.00	116.00	145.00	744.00	769.00	6.73		
21.00	0.56	2.62	0.80	1.40	0.00	6.20	5.80	<2.00	116.00	144.00	722.00	833.00	6.66		
22.00	0.51	2.06	0.87	1.10	0.00	4.60	5.50	<2.00	120.00	159.00	550.00	872.00	6.75		
23.00	0.51	2.04	0.92	1.20	0.00	6.10	5.10	<2.00	123.00	125.00	751.00	638.00	6.60		
24.00	0.54	2.24	1.03	1.30	0.00	4.50	5.00	<2.00	115.00	164.00	518.00	821.00	6.67	6.91	
25.00	0.55	2.29	1.24	1.60	0.00	6.20	5.10	2.00	117.00	169.00	726.00	861.00	6.62		
26.00	0.56	2.30	1.13	2.80	0.00	4.80	5.30	<2.00	116.00	162.00	558.00	861.00	6.63		
27.00	0.57	2.37	1.01	1.40	0.00	4.50	6.10	23.00	118.00	147.00	530.00	898.00	6.65	6.88	
28.00	0.57	2.37	0.97	1.30	0.00	5.90	5.90	<2.00	118.00	167.00	697.00	986.00	6.65		
29.00	0.56	2.26	1.03	1.40	0.00	6.30	5.50	<2.00	128.00	159.00	806.00	876.00	6.59		
30.00	0.53	2.05	0.89	6.50	0.00	4.80	5.10	<2.00	125.00	140.00	598.00	713.00	6.56		
31.00	0.56	2.34	0.56	0.90	0.00	4.80	5.10	<2.00	117.00	159.00	560.00	809.00	6.63		
TOTAL	17.68														
AVG	0.57		0.75	1.69		5.16	5.47		122.00	160.00	632.00	874.00		6.79	
LIMIT	1.50		2.00	10.00	5.00				90.00		450.00			1.00	
MIN	0.51	2.04	0.56	0.70	0.00	1.80	4.80	<2.00	98.00	125.00	176.00	638.00	6.53	6.19	
MAX	0.61	2.65	1.24	10.40	0.00	6.80	8.71	23.00	129.00	199.00	867.00	1507.00	6.83	7.26	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

SEPTEMBER

Date	Continuous			Daily				Weekly				Quarterly		
	Flow mgd	Recycled Flow Peak mgd	Turbidity Daily Max ntu	24 HR ntu	Chlorine Residual Daily Min mg/L	Chlorine Residual Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Modal CT Value Max minutes	Min CT Mg/min/L	Max CT Mg/min/L	pH SU	D.O. MG/L	pond TDS mg/L
1.00	0.56	2.28	0.70	0.56	6.10	5.20	<2.00	116.00	149.00	705.00	775.00	6.62	6.83	
2.00	0.56	2.02	1.10	0.56	6.10	5.20	<2.00	119.00	141.00	727.00	733.00	6.62		
3.00	0.51	1.88	2.80	0.57	4.80	5.60	<2.00	118.00	138.00	566.00	775.00	6.54	6.73	
4.00	0.51	2.42	2.42	0.35	6.10	8.90	<2.00	120.00	157.00	729.00	1399.00	6.61		
5.00	0.50	2.26	2.26	0.36	6.10	5.70	<2.00	122.00	127.00	746.00	724.00	6.81		
6.00	0.47	2.01	0.90	0.64	4.60	5.90	<2.00	123.00	130.00	565.00	768.00	6.55		
7.00	0.46	2.03	0.90	0.59	4.70	5.10	<2.00	124.00	129.00	585.00	656.00	6.59	6.71	
8.00	0.51	2.47	0.80	0.61	4.70	5.20	<2.00	112.00	134.00	669.00	698.00	6.64		
9.00	0.51	2.46	0.80	0.62	4.70	5.10	<2.00	119.00	136.00	561.00	695.00	6.59		
10.00	0.53	2.57	0.70	0.55	4.60	5.50	<2.00	108.00	121.00	496.00	665.00	6.60	6.64	
11.00	0.51	2.29	0.70	0.53	7.00	5.80	<2.00	106.00	169.00	744.00	982.00	6.58		
12.00	0.50	2.47	0.60	0.51	6.10	5.10	<2.00	116.00	119.00	706.00	607.00	6.57		
13.00	0.45	1.99	0.70	0.54	4.30	5.10	<2.00	124.00	127.00	534.00	647.00	6.61		
14.00	0.48	2.29	0.70	0.54	4.30	5.00	<2.00	124.00	126.00	531.00	629.00	6.58	6.68	
15.00	0.00	0.00	0.70	0.53	4.30	5.30	<2.00	121.00	131.00	519.00	692.00	6.62		
16.00	0.54	2.50	1.00	0.83	4.60	5.20	<2.00	133.00	137.00	614.00	715.00	6.61		
17.00	0.48	2.37	0.80	0.65	5.90	5.50	<2.00	131.00	149.00	774.00	818.00	6.54	6.53	
18.00	0.48	2.42	0.80	0.75	4.90	5.00	<2.00	119.00	128.00	583.00	638.00	6.52		
19.00	0.46	2.22	0.90	0.64	5.50	5.10	<2.00	112.00	133.00	619.00	676.00	6.62		
20.00	0.45	2.04	0.80	0.66	6.20	5.10	<2.00	125.00	131.00	774.00	667.00	6.67		
21.00	0.47	2.37	0.90	0.77	5.30	5.00	2.00	130.00	132.00	691.00	659.00	6.59	7.09	
22.00	0.45	2.32	1.20	0.98	6.00	5.40	<2.00	127.00	127.00	763.00	688.00	6.64		
23.00	0.47	2.43	1.50	0.97	6.00	4.70	<2.00	129.00	136.00	773.00	640.00	6.63	6.68	
24.00	0.48	2.40	1.20	1.00	4.40	5.40	<2.00	122.00	136.00	535.00	733.00	6.65		
25.00	0.46	2.21	0.89	0.94	6.30	6.00	<2.00	120.00	127.00	755.00	760.00	6.58		
26.00	0.46	2.21	1.00	0.73	6.80	5.70	<2.00	125.00	131.00	853.00	745.00	6.61		
27.00	0.46	2.04	1.00	0.76	6.50	5.40	<2.00	126.00	128.00	816.00	692.00	6.58		
28.00	0.45	2.33	0.90	0.69	5.60	4.80	2.00	127.00	138.00	713.00	662.00	6.64	6.32	
29.00	0.45	2.35	3.60	0.78	4.60	5.00	<2.00	125.00	130.00	573.00	649.00	6.70		
30.00	0.00	0.00	1.40	0.71	6.30	5.40	<2.00	129.00	145.00			6.65		
TOTAL	13.62													
AVG	0.45		1.16	0.66	5.49	5.41		122.00	135.00	663.00	731.00		6.69	
LIMIT	1.50		10.00	2.00	4.30	4.70	<2.00	90.00	450.00				1.00	
MIN	0.00	0.00	0.60	0.35	7.00	8.90		106.00	119.00	496.00	607.00		6.32	
MAX	0.56	2.57	3.60	1.00	7.00	8.90	2.00	133.00	169.00	853.00	1399.00		7.09	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

OCTOBER

Date	Continuous				Daily				Weekly		Quaterly		
	Flow mgd	Recycled Flow Peak mgd	Turbidity Daily Max ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Modal CT Value Min CT Mg/min/L	Max CT Mg/min/L		pH SU	D.O. MG/L
1.00	0.46	2.57	1.00	0.00	4.00	5.30	2.00	127.00	506.00	691.00	6.61	7.04	
2.00	0.00	0.00	1.00	0.00	0.00	0.00	<2.00	133.00	0.00	0.00	6.66		
3.00	0.47	2.31	1.40	0.00	4.72	5.26	<2.00	127.00	598.00	815.00	6.99		
4.00	0.00	0.00	1.00	0.00	0.00	0.00	<2.00	126.00	142.00	0.00	6.75		
5.00	0.44	2.88	0.70	0.00	3.91	7.40	<2.00	128.00	500.00	1177.00	6.62		
6.00	0.43	2.05	0.80	0.00	4.13	7.23	<2.00	125.00	516.00	1135.00	6.65		
7.00	0.00	0.00	0.70	0.00	0.00	0.00	<2.00	121.00	0.00	0.00	6.66		
8.00	0.53	2.65	1.10	0.00	3.16	7.70	<2.00	162.00	370.00	1251.00	6.58	6.95	
9.00	0.02	0.85	0.80	0.00	0.00	0.00	<2.00	124.00	0.00	0.00	6.63		
10.00	0.06	1.17	0.60	0.00	0.00	0.00	<2.00	122.00	0.00	0.00	6.73		
11.00	0.51	1.96	0.61	0.00	4.00	7.87	<2.00	126.00	505.00	1406.00	6.65		
12.00	0.45	2.05	0.70	0.00	4.12	7.62	<2.00	134.00	551.00	1340.00	6.58		
13.00	0.08	2.88	0.80	0.00	0.00	0.00	<2.00	176.00	0.00	0.00	6.69		
14.00	0.56	2.95	1.00	0.00	4.47	9.13	<2.00	135.00	604.00	1625.00	6.68		
15.00	0.50	2.95	0.70	0.00	4.50	7.07	<2.00	129.00	581.00	1185.00	6.55	6.97	428.00
16.00	0.05	2.96	0.70	0.00	0.00	0.00	<2.00	120.00	0.00	0.00	6.61		
17.00	0.08	2.98	2.10	0.00	0.00	0.00	<2.00	126.00	0.00	0.00	6.65		
18.00	0.58	3.60	0.80	0.00	3.79	7.28	<2.00	128.00	484.00	1146.00	6.65		
19.00	0.56	2.94	0.80	0.00	4.07	7.29	<2.00	122.00	498.00	1317.00	6.54	6.87	
20.00	0.07	2.87	1.30	0.00	0.00	0.00	<2.00	122.00	0.00	0.00	6.57		
21.00	0.51	3.01	1.30	0.00	4.54	9.27	<2.00	129.00	588.00	1585.00	6.50		
22.00	0.49	2.99	1.00	0.00	4.04	7.38	<2.00	129.00	523.00	1331.00	6.50		
23.00	0.09	1.09	0.70	0.00	0.00	0.00	<2.00	124.00	0.00	0.00	6.63		
24.00	0.07	2.86	0.70	0.00	0.00	0.00	<2.00	134.00	0.00	0.00	6.67		
25.00	0.52	2.83	0.80	0.00	3.78	8.15	<2.00	123.00	473.00	1374.00	6.56		
26.00	0.47	1.98	0.80	0.00	4.03	7.47	<2.00	129.00	513.00	1169.00	6.51		
27.00	0.00	0.00	1.10	0.00	0.00	0.00	<2.00	114.00	0.00	0.00	6.60		
28.00	0.01	0.00	0.90	0.00	0.00	0.00	<2.00	127.00	0.00	0.00	6.51		
29.00	0.48	2.36	0.80	0.00	4.51	7.35	<2.00	151.00	0.00	0.00	6.60	7.67	
30.00	0.01	0.75	0.70	0.00	0.00	0.00	<2.00	132.00	596.00	1260.00	6.63		
31.00	0.02	1.64	0.90	0.00	0.00	0.00	<2.00	118.00	0.00	0.00	6.68		
TOTAL	8.52							125.00	280.00	660.00		7.00	428.00
AVG	0.27		0.91	5.00	2.12	3.83		90.00	450.00		6.0-9.0	1.00	
LIMIT	1.50		10.00		0.00	0.00		114.00	0.00	0.00	6.50	6.50	
MIN	0.00	0.00	0.60	0.00	0.00	0.00	<2.00	126.00	0.00	0.00	6.50	6.50	
MAX	0.58	3.60	2.10	0.00	4.72	9.27	2.00	135.00	604.00	1625.00	6.99	7.67	

WESTWINDS GOLF COURSE RECYCLE WATER MONITORING 2009

Date	Continuous				Daily				Weekly		Quarterly			
	Flow mgd	Recycled Flow Peak mgd	24 HR ntu	Turbidity Daily Max ntu	> 5 ntu % of day	Chlorine Residual Daily Min mg/L	Daily Max mg/L	Total Coliform #/100 ml	Min minutes	Modal CT Value Min CT Mg/min/L		Max CT Mg/min/L	pH SU	D.O. MG/L
1.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	<2.00	123.00	168.00	1025.00	6.92		
2.00	0.50	3.58	1.03	1.40	0.00	3.57	6.09	<2.00		441.00		6.93		
3.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.05		
4.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.94		
5.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.92		
6.00	0.53	2.62	0.91	1.40	0.00	3.94	4.77	<2.00	124.00	137.00	655.00	7.01	7.60	
7.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.01	7.57	
8.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.93		
9.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.95		
10.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.92		
11.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.88		
12.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.91		
13.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.00		
14.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.95		
15.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.93		
16.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.89		
17.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.94		
18.00	0.26	2.39	1.05	1.20	0.00	4.99	5.25	<2.00	118.00	130.00	684.00	6.88		
19.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	2.00				6.91		
20.00	0.39	1.62	1.15	1.91	0.00	4.44	5.13	<2.00	123.00	170.00	870.00	6.84		
21.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.96		
22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.94		
23.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.09		
24.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.07		
25.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.99		
26.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.98		
27.00	0.47	2.17	1.37	1.80	0.00	3.72	5.91	<2.00	112.00	166.00	983.00	6.92		
28.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.00		
29.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.99		
30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				7.04		
31.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	<2.00				6.94		
TOTAL	3.48		0.18	0.25		0.67	0.88		120.00	154.00	843.00		7.82	
AVG	0.11		2.00	10.00	5.00				90.00	497.00			1.00	
LIMIT	1.50		0.00	0.00	0.00	0.00	0.00	<2.00	112.00	450.00			6.0-9.0	
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00		124.00	417.00			7.14	
MAX	0.53	3.58	1.37	1.91	0.00	4.99	6.09	2.00	124.00	170.00	1025.00		8.38	

WESTWINDS GOLF COURSE
Groundwater Monitoring Schedule
2009

Parameter	Units	Type of Sample	Frequency	2009 Sample Month(s)
Total Dissolved Solids	mg/L	Grab	Semiannually	January/August
Alkalinity (Alk)	mg/L	Grab	Annually	August
Hardness 9Hrdns)	mg/L	Grab	Annually	August
Methylene blue active substances (MBAS)	mg/L	Grab	Annually	August
Calcium (Ca)	mg/L	Grab	Annually	August
Potassium (K)	mg/L	Grab	Annually	August
Magnesium (Mg)	mg/L	Grab	Annually	August
Copper (Cu)	mg/L	Grab	Annually	August
Iron (Fe)	mg/L	Grab	Annually	August
Manganese (Mn)	mg/L	Grab	Annually	August
Zinc (Zn)	mg/L	Grab	Annually	August
Chloride (Cl)	mg/L	Grab	Annually	August
Sulfate (SO4)	mg/L	Grab	Annually	August
Nitrate (NO3)	mg/L	Grab	Annually	August
Total Organic Carbon	mg/L	Grab	Annually	August

WESTWINDS GOLF COURSE
Groundwater Monitoring Semi-Annual / Annual
2009

SEMI-ANNUAL SAMPLING			
WELL NZ-91			
Sample Month	Total Dissolved Solids (mg/L)	MBAS (mg/L)	
January	388.00	0.08	
August	315.00	0.06	

WELL NZ-119			
Sample Month	Total Dissolved Solids (mg/L)	MBAS (mg/L)	
January	343.00	0.07	
August	308.00	<0.05	

WELL NZ-123			
Sample Month	Total Dissolved Solids (mg/L)	MBAS (mg/L)	
January	774.00	0.09	
August	501.00	<0.05	

ANNUAL SAMPLING														
Sample Pt	Date	Alkalinity (mg/L)	Hardness (mg/L)	Calcium (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Copper (mg/L)	Iron (mg/L)	Manganese (mg/L)	Zinc (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate as N (mg/L)	Total Organic Carbon (mg/L)
WELL NZ-91	8/26/2009	160	160	41	5.4	14	0.014	16	0.49	0.059	13	48	4.10	1.2
WELL NZ-119	8/26/2009	68	110	27	4.6	11	0.015	12	0.34	0.051	3.5	130	0.84	<0.70
WELL NZ-123	8/26/2009	140	280	71	6.3	24	0.021	20	0.53	0.052	98	140	5.10	0.73

WESTWINDS GOLF COURSE
Groundwater Monitoring
Annual
2009

Well NZ 91

Sample Date:	8/26/2009	EPA Method
Parameter	Units	Result
<u>Total Cyanides</u>	(mg/L)	ND
<u>Total Phenols</u>	(mg/L)	ND
<u>Purgeable Organics</u> Volatile Organic Cmpds All results Non-Detectable	(mg/L)	ND
<u>Base Neutral Extractable Organics</u> Semivolatile Organic Cmpds All results Non-Detectable	(mg/L)	ND
<u>Acid Extractable Organics</u> Phenol, single compound	(mg/L)	ND
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of:	(mg/L)	ND
Barium	(mg/L)	0.170
Boron	(mg/L)	0.100
Chromium, T	(mg/L)	0.020
Copper	(mg/L)	0.014
Iron	(mg/L)	16.0
Manganese	(mg/L)	0.490
Vanadium	(mg/L)	0.061
Zinc	(mg/L)	0.059

Well NZ 119

Sample Date:	8/26/2009	EPA Method
Parameter	Units	Result
<u>Total Cyanides</u>	(mg/L)	0.01
<u>Total Phenols</u>	(mg/L)	ND
<u>Purgeable Organics</u> Volatile Organic Cmpds All results Non-Detectable.	(mg/L)	ND
<u>Base Neutral Extractable Organics</u> Semivolatile Organic Cmpds All results Non-Detectable.	(mg/L)	ND
<u>Acid Extractable Organics</u> Phenol Group	(mg/L)	ND
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of:	(mg/L)	ND
Barium	(mg/L)	0.093
Chromium, T	(mg/L)	0.024
Copper	(mg/L)	0.015
Iron	(mg/L)	12.0
Manganese	(mg/L)	0.340
Vanadium	(mg/L)	0.053
Zinc	(mg/L)	0.051

Well NZ 123

Sample Date:	8/26/2009	EPA Method
Parameter	Units	Result
<u>Total Cyanides</u>	(mg/L)	ND
<u>Total Phenols</u>	(mg/L)	ND
<u>Purgeable Organics</u> Volatile Organic Cmpds All results Non-Detectable	(mg/L)	ND
<u>Base Neutral Extractable Organics</u> Semivolatile Organic Cmpds All results Non-Detectable with the exception of:	(mg/L)	ND
<u>Acid Extractable Organics</u> Phenol, single compound	(mg/L)	ND
<u>Heavy Metals</u> Metals and Metalloids All results Non-Detectable with the exception of:	(mg/L)	ND
Barium	(mg/L)	0.180
Boron	(mg/L)	0.12
Total Chromium	(mg/L)	0.025
Copper	(mg/L)	0.021
Iron	(mg/L)	20.0
Manganese	(mg/L)	0.530
Vanadium	(mg/L)	0.059
Zinc	(mg/L)	0.052



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 1 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9A1922-01	3600 NZ-91 Grab Wastewater Semi-Annual	Liquid	01/21/09 10:15	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-02	3601 NZ-119 Grab Wastewater Semi-Annual	Liquid	01/21/09 12:15	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-03	3602 NZ-123 Grab Wastewater Semi-Annual	Liquid	01/21/09 11:08	Chris Davis	01/22/09 14:35	Courier (J. Mendez)
A9A1922-04	3603 Equipment Blank Grab Wastewater Semi-Annual	Liquid	01/21/09 12:30	Chris Davis	01/22/09 14:35	Courier (J. Mendez)

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 2 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3600 NZ-91 Grab Semi-Annual	Liquid	01/21/09 10:15	01/22/09 14:35

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Sodium	55	1.0	mg/L	EPA 200.7	02/02/09 15:56	lmt	
Anions							
Chloride	14	1.0	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Sulfate	53	0.50	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Nitrate as N	3.8	0.20	mg/L	EPA 300.0	01/23/09 04:58	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.08	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:42	slf	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	01/28/09 10:31	slf	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 08:42	jes	
Surrogate: 1,2-Dichloroethane-d4	115	% 50-150		EPA 524.2	01/23/09 08:42	jes	
Surrogate: Bromofluorobenzene	112	% 50-150		EPA 524.2	01/23/09 08:42	jes	
Surrogate: Toluene-d8	97.4	% 50-150		EPA 524.2	01/23/09 08:42	jes	

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NELAP no. 02101CA
 CA ELAP no. 1156
 EPA no. CA00102



E.S.BABCOCK & Sons, Inc.
Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 3 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3601 NZ-119 Grab Semi-Annual	Liquid	01/21/09 12:15	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	64	5.0	mg/L	EPA 200.7	02/02/09 15:58	lmt	
Anions							
Chloride	3.6	1.0	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Sulfate	130	0.50	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Nitrate as N	0.84	0.20	mg/L	EPA 300.0	01/23/09 05:08	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	3.5	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.07	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:44	sll	
Kjeldahl Nitrogen	0.48	0.10	mg/L	EPA 351.2	01/28/09 10:34	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 11:34	jes	
Surrogate: 1,2-Dichloroethane-d4	115	% 50-150		EPA 524.2	01/23/09 11:34	jes	
Surrogate: Bromofluorobenzene	108	% 50-150		EPA 524.2	01/23/09 11:34	jes	
Surrogate: Toluene-d8	96.5	% 50-150		EPA 524.2	01/23/09 11:34	jes	

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NELAP no. 02101CA
CA ELAP no. 1156
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 4 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3602 NZ-123 Grab Semi-Annual	Liquid	01/21/09 11:08	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Sodium	83	1.0	mg/L	EPA 200.7	02/02/09 15:59	lmt	
Anions							
Chloride	98	1.0	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Sulfate	130	0.50	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Nitrate as N	5.6	0.20	mg/L	EPA 300.0	01/23/09 05:48	SBD	
Aggregate Organic Compounds							
Total Organic Carbon	ND	3.5	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Surfactants							
MBAS	0.09	0.05	mg/L	SM 5540C	01/22/09 20:25	ara	
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	01/22/09 18:10	kam	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	01/23/09 10:47	sll	
Kjeldahl Nitrogen	1.3	0.10	mg/L	EPA 351.2	01/28/09 10:36	sll	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:07	jes	
Surrogate: 1,2-Dichloroethane-d4	116	% 50-150		EPA 524.2	01/23/09 12:07	jes	
Surrogate: Bromofluorobenzene	111	% 50-150		EPA 524.2	01/23/09 12:07	jes	
Surrogate: Toluene-d8	96.9	% 50-150		EPA 524.2	01/23/09 12:07	jes	

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Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
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Analytical Report: Page 5 of 6
 Project Name: VVWRA-Lab
 Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Laboratory Reference Number

A9A1922-04

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
3603 Equipment Blank Grab Semi-Annual	Liquid	01/21/09 12:30	01/22/09 14:35

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	01/28/09 23:18	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	01/29/09 13:18	htt	
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	01/23/09 12:40	jes	
Surrogate: 1,2-Dichloroethane-d4	116	% 50-150		EPA 524.2	01/23/09 12:40	jes	
Surrogate: Bromofluorobenzene	108	% 50-150		EPA 524.2	01/23/09 12:40	jes	
Surrogate: Toluene-d8	96.5	% 50-150		EPA 524.2	01/23/09 12:40	jes	

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 6 of 6
Project Name: VVWRA-Lab
Project Number: [none]

Report Date: 03-Feb-2009

Work Order Number: A9A1922

Received on Ice (Y/N): Yes Temp: 8 °C

Notes and Definitions

- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Lorenzo Rodriguez
Project Manager

Allison Mackenzie
General Manager

Lawrence J. Chrystal
Laboratory Director

cc:

ESB_Short_Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Semi-annual Groundwater Monitoring Wells			Laboratory Analyses Requested										Sample Preservation Methods				Sample Matrix (WW, DW, GW, SG)						
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Sample Type		Total # of Containers										Retrigeration								
Sampler Name: Chris Davis			Grab	Composite	MBAS	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Chloride	Sulfate	THM's (EPA 524.2)	T.O.C.	T.P.H. (EPA 418.1)	Sodium	H ₂ SO ₄ pH <	HNO ₃ pH <	Na ₂ S ₂ O ₃	NaOH pH > 12	HCl			
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab	Composite	X	X	X	X	X	X	X	X	X	X	1	3	1	2	1	2	GW	
3000	NZ-91	1/21/09	1015	X		X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW	
3001	NZ-119	1/21/09	1215	X		X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW	
3002	NZ-123	1/21/09	1108	X		X	X	X	X	X	X	X	X	X	X	7	1	3	1	2		GW	
3003	Equipment Blank	1/21/09	1230	X		X	X	X	X	X	X	X	X	X	X	7	2	0	2			DW	
Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Print:		Company:		Print:		Company:	
Chris Davis		1/21/09 1238		Gina Cloutier		1-22-09		Gina Cloutier		12:40		L. Mender				L. Mender		D. F.					
Company: BTS				Company: VVWRA				Company: VVWRA				Company: VVWRA				Company: D. F.							
Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Print:		Company:		Print:		Company:	
L. Mender		1-22-09 2:35		Gina Cloutier		1-22-09		Gina Cloutier		1-22-09		L. Mender				L. Mender		D. F.					
Company: D. F.				Company: VVWRA				Company: VVWRA				Company: VVWRA				Company: D. F.							
Sample Condition Upon Receipt by Laboratory:				Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Temperature _____ °C											
Samples sent via courier to:				E.S. Babcock Laboratories				Lab # A9A1922 AB				IAN 99 2000											



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 1 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
A9H2899-01	6767 NZ-123	Liquid	08/26/09 11:00	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2899-02	6768 NZ-91	Liquid	08/26/09 11:30	CD/CW	08/27/09 14:00	Courier (J. Mendez)
A9H2899-03	6769 NZ-119	Liquid	08/26/09 12:00	CD/CW	08/27/09 14:00	Courier (J. Mendez)



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 2 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Cations							
Total Hardness	280	3.0	mg/L	SM 3120B	09/03/09 14:09	lmt	
Calcium	71	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Magnesium	24	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Sodium	83	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Potassium	6.3	1.0	mg/L	EPA 200.7	09/03/09 14:09	lmt	
Anions							
Total Alkalinity	140	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	170	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	98	1.0	mg/L	EPA 300.0	08/28/09 02:42	ss	
Sulfate	140	0.50	mg/L	EPA 300.0	08/28/09 02:42	ss	
Nitrate as N	5.1	0.20	mg/L	EPA 300.0	08/28/09 02:42	ss	
Aggregate Organic Compounds							
Total Organic Carbon	0.73	0.70	mg/L	SM 5310B	09/01/09 01:35	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:50	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:11	sll	

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 3 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

Sample Description: 6767 NZ-123
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Nutrients (Nitrite as N, Ammonia-Nitrogen, Kjeldahl Nitrogen) and Metals and Metalloids (Iron, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Total Chromium, Cobalt, Copper, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc).

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 4 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 06:13	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:13	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:13	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:13	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:13	jes	
Surrogate: 1,2-Dichloroethane-d4	104	% 50-150		EPA 524.2	08/29/09 06:13	jes	
Surrogate: Bromofluorobenzene	96.8	% 50-150		EPA 524.2	08/29/09 06:13	jes	
Surrogate: Toluene-d8	98.1	% 50-150		EPA 524.2	08/29/09 06:13	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 06:13	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:13	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:13	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 5 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Chloromethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 06:13	jes	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/29/09 06:13	jes	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Toluene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/29/09 06:13	jes	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 06:13	jes	NMout
Surrogate: 1,2-Dichloroethane-d4	104	% 78.5-125		EPA 624	08/29/09 06:13	jes	
Surrogate: Bromofluorobenzene	96.8	% 80-120		EPA 624	08/29/09 06:13	jes	
Surrogate: Toluene-d8	98.1	% 80-120		EPA 624	08/29/09 06:13	jes	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/01/09 22:04	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
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Analytical Report: Page 6 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
2,4-Dinitrotoluene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2,6-Dinitrotoluene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Chloronaphthalene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Chlorophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
2-Methyl-4,6-Dinitrophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
2-Nitrophenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
3,3'-Dichlorobenzidine	ND	20	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDD	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDE	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4,4'-DDT	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Bromophenyl phenyl ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Chloro-3-methylphenol	ND	20	ug/L	EPA 625	09/01/09 22:04	DF	
4-Chlorophenyl phenyl ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
4-Nitrophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
a-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Acenaphthene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Acenaphthylene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Aldrin	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Anthracene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1016 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1221 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1232 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1242 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1248 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1254 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Aroclor 1260 (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
b-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzidine	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(a)anthracene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(a)pyrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 7 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Benzo(b)fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(ghi)perylene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Benzo(k)fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Bis(2-chloroethoxy)methane	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Bis(2-Chloroethyl)ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Bis(2-chloroisopropyl)Ether	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/L	EPA 625	09/01/09 22:04	DF	
Butyl benzyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Chlordane (screen)	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Chrysene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
d-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Di-n-butylphthalate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Di-n-octylphthalate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Dibenzo(a,h)anthracene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Dieldrin	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Diethyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Dimethyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Endosulfan I	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Endosulfan II	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Endosulfan Sulfate	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Endrin	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Fluorene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Heptachlor	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Heptachlor Epoxide	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Hexachlorobenzene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Hexachlorobutadiene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Hexachlorocyclopentadiene	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Hexachloroethane	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	

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CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 8 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: **A9H2899**
Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-01

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6767 NZ-123	Liquid	08/26/09 11:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Phenol	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Pyrene	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/01/09 22:04	DF	
y-BHC	ND	10	ug/L	EPA 625	09/01/09 22:04	DF	
Surrogate: 2,4,6-Tribromophenol	59.8	% 33-101		EPA 625	09/01/09 22:04	DF	
Surrogate: 2-Fluorobiphenyl	50.7	% 29-94		EPA 625	09/01/09 22:04	DF	
Surrogate: 2-Fluorophenol	30.2	% 15-52		EPA 625	09/01/09 22:04	DF	
Surrogate: 4-Terphenyl-d14	58.0	% 37-105		EPA 625	09/01/09 22:04	DF	
Surrogate: Nitrobenzene-d5	51.7	% 30-90		EPA 625	09/01/09 22:04	DF	
Surrogate: Phenol-d6	19.0	% 8-47		EPA 625	09/01/09 22:04	DF	

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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 9 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
 Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number
A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	160	3.0	mg/L	SM 3120B	09/03/09 14:13	lmt	
Calcium	41	1.0	mg/L	EPA 200.7	09/03/09 14:13	lmt	
Magnesium	14	1.0	mg/L	EPA 200.7	09/03/09 14:13	lmt	
Sodium	54	1.0	mg/L	EPA 200.7	09/03/09 14:13	lmt	
Potassium	5.4	1.0	mg/L	EPA 200.7	09/03/09 14:13	lmt	
Anions							
Total Alkalinity	160	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	190	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	13	1.0	mg/L	EPA 300.0	08/28/09 03:46	ARA	
Sulfate	48	0.50	mg/L	EPA 300.0	08/28/09 03:46	ARA	
Nitrate as N	4.1	0.20	mg/L	EPA 300.0	08/28/09 03:46	ARA	
Aggregate Organic Compounds							
Total Organic Carbon	1.2	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.0	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:52	je	
Surfactants							
MBAS	0.06	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:13	sl	



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Analytical Report: Page 10 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899
 Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/27/09 20:27	jc	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:01	sll	
Kjeldahl Nitrogen	0.17	0.10	mg/L	EPA 351.2	08/28/09 18:23	sll	
Metals and Metalloids							
Iron	16000	500	ug/L	EPA 200.7	09/03/09 15:02	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Barium	170	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Boron	100	100	ug/L	EPA 200.7	09/03/09 14:13	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Total Chromium	20	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Copper	14	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Manganese	490	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:05	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:05	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:05	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:05	ap	
Vanadium	61	10	ug/L	EPA 200.8	09/02/09 20:05	ap	
Zinc	59	10	ug/L	EPA 200.8	09/02/09 20:05	ap	

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 CA ELAP no. 2698
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Analytical Report: Page 11 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2899

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Volatile Organic Compounds by EPA 524.2							
Total Trihalomethanes	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Bromoform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Chloroform	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 524.2	08/29/09 06:46	jes	
Surrogate: 1,2-Dichloroethane-d4	106	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Surrogate: Bromofluorobenzene	94.8	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Surrogate: Toluene-d8	98.8	% 50-150		EPA 524.2	08/29/09 06:46	jes	
Volatile Organic Compounds by EPA 624							
1,1,1-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1,2-Trichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,1-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,2-Dichloropropane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,3-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
1,4-Dichlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
2-Chloroethylvinyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 06:46	jes	NCEVE
Acrolein (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:46	jes	
Acrylonitrile (EPA 8260B)	ND	10	ug/L	EPA 624	08/29/09 06:46	jes	
Benzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromodichloromethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromoform	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Bromomethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Carbon Tetrachloride	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Chlorobenzene	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	
Chloroethane	ND	0.50	ug/L	EPA 624	08/29/09 06:46	jes	

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
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Analytical Report: Page 12 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description: 6768 NZ-91
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:30
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 624 and Semivolatile Organic Compounds by EPA 625.

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Analytical Report: Page 13 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

Sample Description: 6768 NZ-91
Matrix: Liquid
Sampled Date/Time: 08/26/09 11:30
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains a list of Semivolatile Organic Compounds by EPA 625 with their respective results and detection limits.

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Analytical Report: Page 14 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Benzo(b)fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Benzo(ghi)perylene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Benzo(k)fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Bis(2-chloroethoxy)methane	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Bis(2-Chloroethyl)ether	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Bis(2-chloroisopropyl)Ether	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/L	EPA 625	09/01/09 22:34	DF	
Butyl benzyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Chlordane (screen)	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Chrysene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
d-BHC	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Di-n-butylphthalate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Di-n-octylphthalate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Dibenzo(a,h)anthracene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Dieldrin	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Diethyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Dimethyl phthalate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Endosulfan I	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Endosulfan II	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Endosulfan Sulfate	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Endrin	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Fluoranthene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Fluorene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Heptachlor	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Heptachlor Epoxide	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Hexachlorobenzene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Hexachlorobutadiene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Hexachlorocyclopentadiene	ND	50	ug/L	EPA 625	09/01/09 22:34	DF	
Hexachloroethane	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	

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Analytical Report: Page 15 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2899

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-02

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6768 NZ-91	Liquid	08/26/09 11:30	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Semivolatile Organic Compounds by EPA 625							
Isophorone	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
n-Nitrosodi-n-propylamine	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
N-Nitrosodimethylamine	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
N-Nitrosodiphenylamine	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Naphthalene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Nitrobenzene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Pentachlorophenol	ND	50	ug/L	EPA 625	09/01/09 22:34	DF	
Phenanthrene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Phenol	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Pyrene	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Toxaphene (screen)	ND	50	ug/L	EPA 625	09/01/09 22:34	DF	
γ-BHC	ND	10	ug/L	EPA 625	09/01/09 22:34	DF	
Surrogate: 2,4,6-Tribromophenol	65.1	% 33-101		EPA 625	09/01/09 22:34	DF	
Surrogate: 2-Fluorobiphenyl	61.9	% 29-94		EPA 625	09/01/09 22:34	DF	
Surrogate: 2-Fluorophenol	30.0	% 15-52		EPA 625	09/01/09 22:34	DF	
Surrogate: 4-Terphenyl-d14	60.1	% 37-105		EPA 625	09/01/09 22:34	DF	
Surrogate: Nitrobenzene-d5	58.8	% 30-90		EPA 625	09/01/09 22:34	DF	
Surrogate: Phenol-d6	19.5	% 8-47		EPA 625	09/01/09 22:34	DF	

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Analytical Report: Page 16 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6769 NZ-119	Liquid	08/26/09 12:00	08/27/09 14:00

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Cations							
Total Hardness	110	3.0	mg/L	SM 3120B	09/03/09 14:17	lmt	
Calcium	27	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Magnesium	11	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Sodium	59	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Potassium	4.6	1.0	mg/L	EPA 200.7	09/03/09 14:17	lmt	
Anions							
Total Alkalinity	68	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Hydroxide	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Carbonate	ND	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Bicarbonate	83	3.0	mg/L	SM 2320B	09/03/09 17:00	je	
Chloride	3.5	1.0	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Sulfate	130	0.50	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Nitrate as N	0.84	0.20	mg/L	EPA 300.0	08/28/09 03:59	ARA	
Aggregate Organic Compounds							
Total Organic Carbon	ND	0.70	mg/L	SM 5310B	09/04/09 21:10	krv	
Total Petroleum Hydrocarbons	ND	1.1	mg/L	EPA 418.1	08/31/09 10:25	tdm	
Phenols	ND	0.020	mg/L	EPA 420.4	09/10/09 11:54	je	
Surfactants							
MBAS	ND	0.05	mg/L	SM 5540C	08/27/09 21:20	ara	
General Inorganics							
Cyanide	ND	0.005	mg/L	SM 4500CN E	08/31/09 13:14	sll	

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NELAP no. 02101CA
 CA ELAP no. 2698
 EPA no. CA00102



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 Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
 Contact: Gina Cloutier
 Address: 15776 Main St. Suite 3
 Hesperia, CA 92345

Analytical Report: Page 17 of 23
 Project Name: VVWRA-Lab
 Project Number: Annual Groundwater Monit. V

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6769 NZ-119	Liquid	08/26/09 12:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Nutrients							
Nitrite as N	ND	0.10	mg/L	SM 4500NO2 B	08/27/09 20:27	jc	
Ammonia-Nitrogen	ND	0.10	mg/L	SM4500NH3H	08/28/09 13:04	sl	
Kjeldahl Nitrogen	ND	0.10	mg/L	EPA 351.2	08/28/09 18:24	sl	
Metals and Metalloids							
Iron	12000	500	ug/L	EPA 200.7	09/03/09 15:00	lmt	
Antimony	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Arsenic	ND	5.0	ug/L	EPA 200.8	09/02/09 20:08	ap	
Barium	93	20	ug/L	EPA 200.8	09/02/09 20:08	ap	
Beryllium	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Boron	ND	100	ug/L	EPA 200.7	09/03/09 14:17	lmt	
Cadmium	ND	2.0	ug/L	EPA 200.8	09/02/09 20:08	ap	
Total Chromium	24	20	ug/L	EPA 200.8	09/02/09 20:08	ap	
Cobalt	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Copper	15	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Lead	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Manganese	340	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Mercury	ND	0.50	ug/L	EPA 200.8	09/02/09 20:08	ap	
Molybdenum	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Nickel	ND	20	ug/L	EPA 200.8	09/02/09 20:08	ap	
Selenium	ND	5.0	ug/L	EPA 200.8	09/02/09 20:08	ap	
Silver	ND	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Thallium	ND	200	ug/L	EPA 200.8	09/02/09 20:08	ap	
Vanadium	53	10	ug/L	EPA 200.8	09/02/09 20:08	ap	
Zinc	51	10	ug/L	EPA 200.8	09/02/09 20:08	ap	

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NELAP no. 02101CA
 CA ELAP no. 2698
 EPA no. CA00102



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Environmental Laboratories est.1906

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 18 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Volatile Organic Compounds by EPA 524.2 and EPA 624.

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



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Environmental Laboratories *est. 1906*

Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
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Analytical Report: Page 19 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Work Order Number: A9H2899

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
6769 NZ-119	Liquid	08/26/09 12:00	08/27/09 14:00

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Volatile Organic Compounds by EPA 624							
Chloroform	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Chloromethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
cis-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Dibromochloromethane	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Dichlorodifluoromethane (EPA 8260)	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Ethylbenzene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Methyl tert Butyl Ether	ND	5.0	ug/L	EPA 624	08/29/09 07:19	jes	
Methylene Chloride	ND	3.0	ug/L	EPA 624	08/29/09 07:19	jes	
Tetrachloroethene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Toluene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
trans-1,2-Dichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
trans-1,3-Dichloropropene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Trichloroethene	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Trichlorofluoromethane	ND	5.0	ug/L	EPA 624	08/29/09 07:19	jes	
Vinyl Chloride	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Xylenes (m+p) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Xylenes (ortho) (EPA 8260B)	ND	0.50	ug/L	EPA 624	08/29/09 07:19	jes	
Surrogate: 1,2-Dichloroethane-d4	104	% 78.5-125		EPA 624	08/29/09 07:19	jes	
Surrogate: Bromofluorobenzene	95.0	% 80-120		EPA 624	08/29/09 07:19	jes	
Surrogate: Toluene-d8	97.7	% 80-120		EPA 624	08/29/09 07:19	jes	
Semivolatile Organic Compounds by EPA 625							
2,3,7,8-TCDD (scan)	ND	0.050	ug/L	EPA 625	09/01/09 23:03	DF	
1,2,4-Trichlorobenzene	ND	10	ug/L	EPA 625	09/01/09 23:03	DF	
1,2-Diphenylhydrazine (EPA 8270)	ND	10	ug/L	EPA 625	09/01/09 23:03	DF	
2,4,6-Trichlorophenol	ND	10	ug/L	EPA 625	09/01/09 23:03	DF	
2,4-Dichlorophenol	ND	10	ug/L	EPA 625	09/01/09 23:03	DF	
2,4-Dimethylphenol	ND	10	ug/L	EPA 625	09/01/09 23:03	DF	
2,4-Dinitrophenol	ND	50	ug/L	EPA 625	09/01/09 23:03	DF	

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NELAP no. 02101CA
CA ELAP no. 2698
EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 20 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Contains data for Semivolatile Organic Compounds by EPA 625, listing various chemicals and their detection results.

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Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 21 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2899

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Lists various organic compounds and their detection results.

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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 22 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. W

Report Date: 11-Sep-2009

Work Order Number: A9H2899

Received on Ice (Y/N): Yes Temp: 7 °C

Laboratory Reference Number

A9H2899-03

Sample Description: 6769 NZ-119
Matrix: Liquid
Sampled Date/Time: 08/26/09 12:00
Received Date/Time: 08/27/09 14:00

Table with 8 columns: Analyte(s), Result, RDL, Units, Method, Analysis Date, Analyst, Flag. Rows include Semivolatile Organic Compounds by EPA 625, Isophorone, n-Nitrosodi-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, Toxaphene (screen), y-BHC, and various Surrogate compounds.

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EPA no. CA00102



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Client Name: Victor Valley Reclamation Authority
Contact: Gina Cloutier
Address: 15776 Main St. Suite 3
Hesperia, CA 92345

Analytical Report: Page 23 of 23
Project Name: VVWRA-Lab
Project Number: Annual Groundwater Monit. V

Work Order Number: A9H2899

Report Date: 11-Sep-2009

Received on Ice (Y/N): Yes Temp: 7 °C

Notes and Definitions

- NCEVE In an acidified sample, this compound degrades and is not detectable as 2-Chloroethylvinyl ether. Its degradation product is 2-Chloroethanol, which is not an analyte of this method.
- NMout The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit

* / (Non-NELAP): NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.


 Lorenzo Rodriguez Allison Mackenzie Lawrence J. Chrystal
 Project Manager General Manager Laboratory Director

cc:

ESB_Short_Report



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Annual Groundwater Monitoring Wells				Sample Type																				
Project Contact: Gina Cloutier (760) 246-8638 ext. 216				Grab					Composite															
Sampler Name: <i>Chris Davis / Chr. Well</i>				Total # of Containers																				
Sampler Signature: <i>[Signature]</i>				Laboratory Analyses Requested					Sample Preservation Methods															
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	MBAS	Ammonia-N	TKN	Nitrite-N	Nitrate-N	Chloride & Sulfate	Alkalinity	THM's (EPA 524.2)	T.P.H. (EPA 418.1)	Cyanide	Phenols	EPA 625 (BNA) w/Dioxin	EPA 624 w/MTBE	Refrigeration	H ₂ SO ₄ pH Δ	HNO ₃ pH Δ	Na ₂ S ₂ O ₃	NaOH pH >12	HCl		
6767	NZ-123	8-26-09	11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	3	4	1	2	1	2		
6768	NZ-91	8-26-09	11:30	X	X	X	X	X	X	X	X	X	X	X	X	X	3	4	1	2	1	2		
6769	NZ-119	8-26-09	12:00	X	X	X	X	X	X	X	X	X	X	X	X	X	3	4	1	2	1	2		

Relinquished By (Sign): <i>[Signature]</i>	Date/Time: 8-26-09	Received By (Sign): <i>[Signature]</i>	Date/Time: 8/27/09
Print: <i>Chris Well</i>	12:37	Print: <i>Gina Cloutier</i>	12:28
Company: <i>VVWRA</i>		Company: <i>VVWRA</i>	
Relinquished By (Sign): <i>[Signature]</i>	Date/Time: 8/27/09	Received By (Sign): <i>[Signature]</i>	Date/Time: 8/27/09
Print: <i>J. Mendez</i>	14:00	Print: <i>J. Mendez</i>	
Company: <i>D.E.</i>		Company: <i>Daily Exp</i>	

Sample Condition Upon Receipt by Laboratory:
 Samples Received on Ice? Yes No
 Samples Received Intact? Yes No
 Temperature 7 °C
 Laboratory Notes: Metals & Hardness to include: Sb, As, Ba, Be, B, Bi, Cd, Cr, Co, Cu, Fe, K, Pb, Mn, Ni, Hg, Mo, Ni, Se, Ag, Na, N, V, Zn, and Fluorides (Calc.)
 Received By (Sign): *[Signature]*
 Print: *J. Mendez*
 Company: *Daily Exp*
 Date/Time: Aug 27
 Samples sent via courier to: **E.S. Babcock Laboratories**
 Tab # **A9H2299**

SECTION 9

AQUATIC TOXICITY MONITORING

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TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*.

Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River
DATE RECEIVED:	21 Jan - 09
ABC LAB. NO.:	VIC0109.211

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50	=	100 % Survival in 100 % Sample
TUa	=	0.00

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 1/21/2009	Test ID: VIC0109211	Sample ID: CA0000000
End Date: 1/25/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas

Comments: Final Effluent to Mojave River Grab

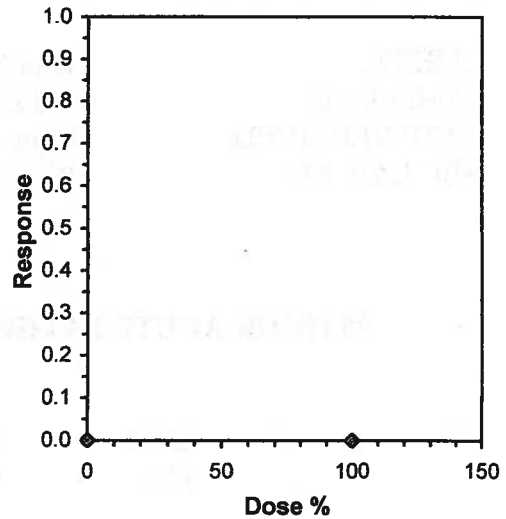
Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

Linear Interpolation (200 Resamples)

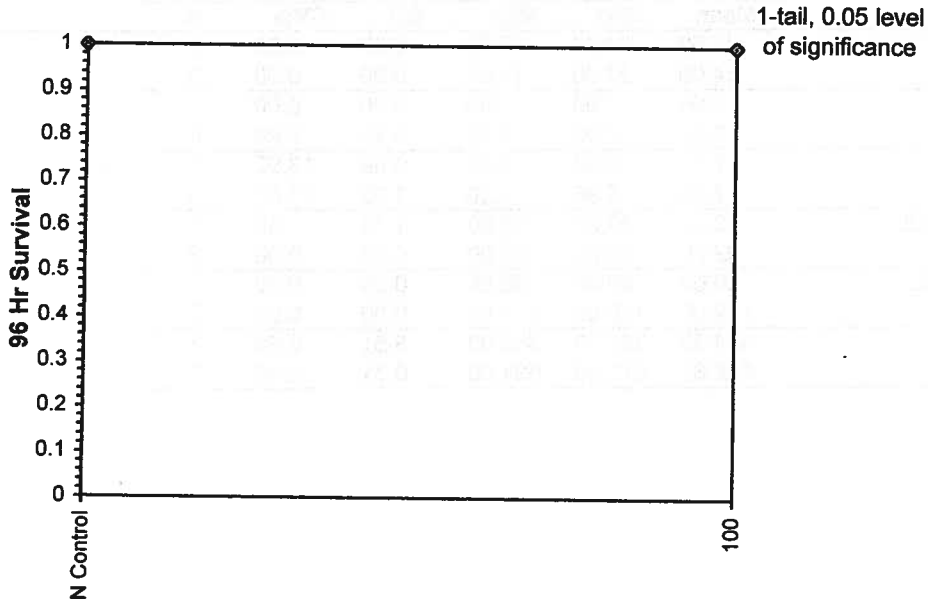
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 1/21/2009 Test ID: VIC0109211 Sample ID: CA0000000
End Date: 1/25/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-012 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 1/21/2009	Test ID: VIC0109211	Sample ID: CA0000000
End Date: 1/25/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.50	24.00	25.50	0.87	3.80	3
100		24.00	24.00	24.00	0.00	0.00	3
N Control	pH	7.90	7.90	7.90	0.00	0.00	3
100		7.23	7.00	7.50	0.25	6.94	3
N Control	DO mg/L	7.13	6.00	7.80	0.99	13.92	3
100		7.40	5.90	8.50	1.35	15.67	3
N Control	Hardness mg/L	82.00	80.00	83.00	1.73	1.60	3
100		92.00	92.00	92.00	0.00	0.00	3
N Control	Alkalinitymg/L	60.00	60.00	60.00	0.00	0.00	3
100		112.00	112.00	112.00	0.00	0.00	3
N Control	Conductivity	364.33	358.00	368.00	5.51	0.64	3
100		682.67	672.00	691.00	9.71	0.46	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

May 4, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:


We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River
DATE RECEIVED:	21 April - 09
ABC LAB. NO.:	VIC0409.213

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50 = 100 % Survival in 100 % Sample
TUa = 0.00

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-96 Hr Survival

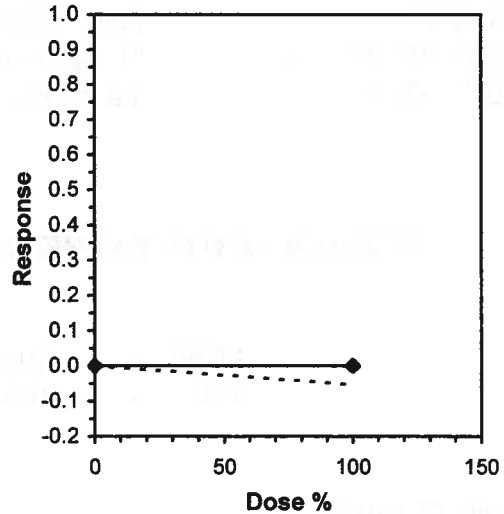
Start Date: 4/21/2009	Test ID: VIC0409213	Sample ID: CA0000000
End Date: 4/25/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 4/20/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4
N Control	0.9000	0.9000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.9500	1.0000	1.3305	1.2490	1.4120	7.072	4				0.9750	1.0000
100	1.0000	1.0526	1.4120	1.4120	1.4120	0.000	2	-1.155	2.132	0.1504	0.9750	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85322	0.713	0	-1.875		
Equality of variance cannot be confirmed						
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.08841	0.09372	0.00885	0.00664	0.3125	1, 4
Treatments vs N Control						

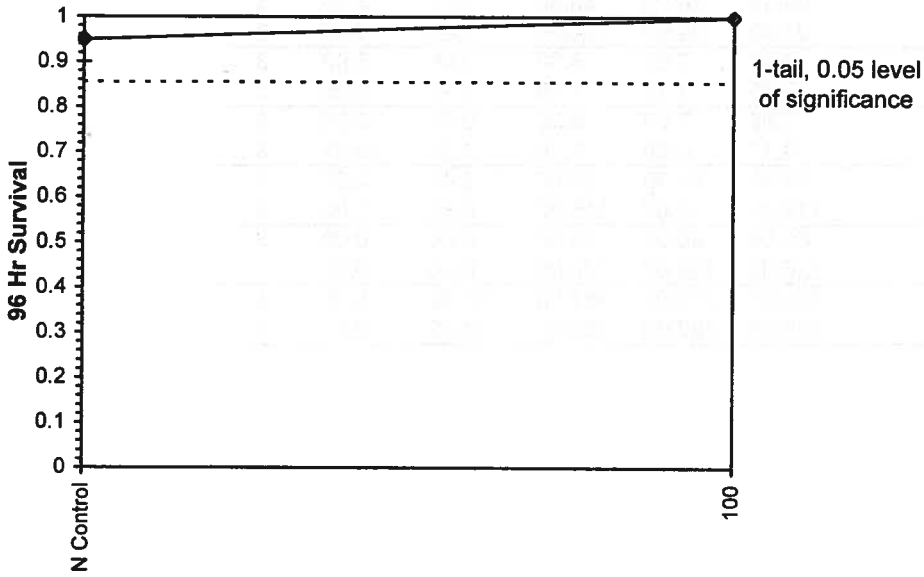
Linear interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 4/21/2009 Test ID: VIC0409213 Sample ID: CA0000000
End Date: 4/25/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 4/20/2009 Protocol: EPA-821-R-02-012 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 4/21/2009	Test ID: VIC0409213	Sample ID: CA0000000
End Date: 4/25/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 4/20/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.43	24.00	25.30	0.75	3.55	3
100		24.00	24.00	24.00	0.00	0.00	3
N Control	pH	7.93	7.90	8.00	0.06	3.03	3
100		7.80	7.70	7.90	0.10	4.05	3
N Control	DO mg/L	7.90	7.00	8.90	0.95	12.36	3
100		8.17	6.80	9.10	1.21	13.47	3
N Control	Hardness mg/L	84.00	80.00	86.00	3.46	2.22	3
100		115.00	115.00	115.00	0.00	0.00	3
N Control	Alkalinitymg/L	60.00	60.00	60.00	0.00	0.00	3
100		125.00	125.00	125.00	0.00	0.00	3
N Control	Conductivity	372.67	361.00	387.00	13.20	0.98	3
100		739.00	727.00	755.00	14.42	0.51	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

July 21, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:


We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	7 July - 09
ABC LAB. NO.:	VIC0709.042

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50 = 85 % Survival in 100 % Sample
TUa = 0.69

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/8/2009	Test ID: VIC0709042	Sample ID: CA0000000
End Date: 7/12/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

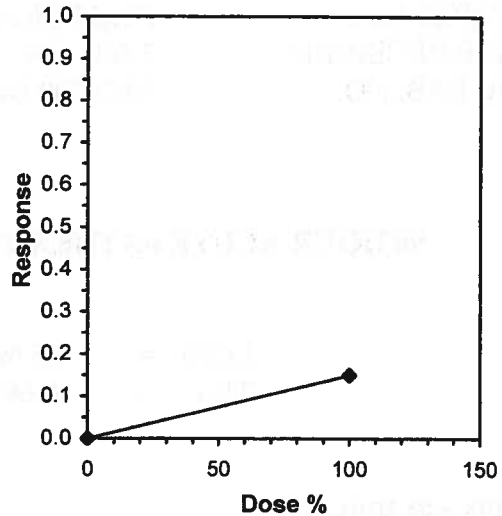
Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	0.9000	0.8000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4				1.0000	1.0000
*100	0.8500	0.8500	1.1781	1.1071	1.2490	8.517	2	5.384	2.132	0.0926	0.8500	0.8500

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.82716	0.713	-6E-15	2.5		
Equality of variance cannot be confirmed						
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates significant differences	0.03688	0.03783	0.07296	0.00252	0.00575	1, 4
Treatments vs N Control						

Point	%	SD	Linear Interpolation (200 Resamples)		Skew
			95% CL(Exp)		
IC05*	33.333	9.595	0.000	100.000	0.4693
IC10*	66.667				
IC15	>100				
IC20	>100				
IC25	>100				
IC40	>100				
IC50	>100				

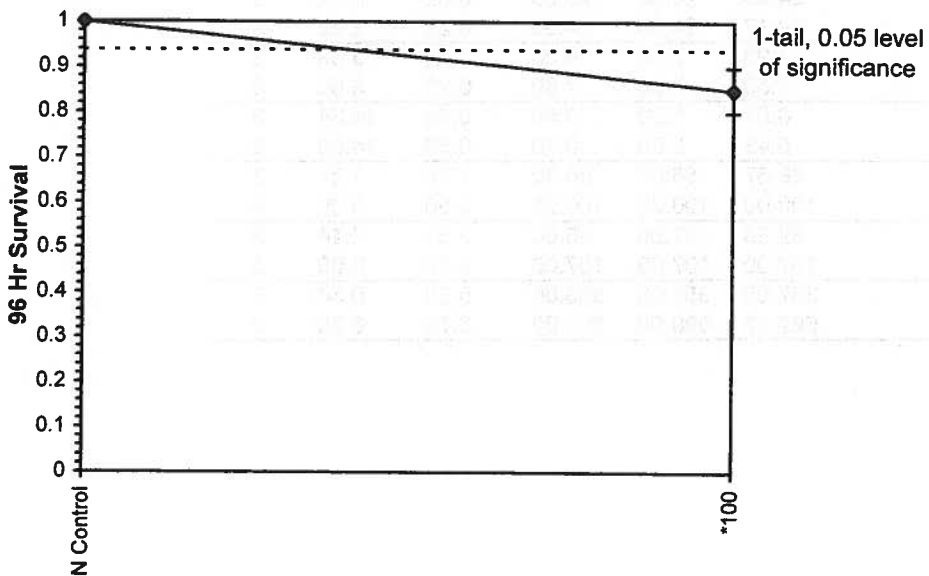
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/8/2009 Test ID: VIC0709042 Sample ID: CA0000000
End Date: 7/12/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 7/7/2009 Protocol: EPA-821-R-02-012 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/8/2009	Test ID: VIC0709042	Sample ID: CA0000000
End Date: 7/12/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.33	24.00	25.00	0.58	3.12	3
100		24.17	24.00	24.50	0.29	2.22	3
N Control	pH	7.93	7.90	8.00	0.06	3.03	3
100		7.53	7.30	7.80	0.25	6.66	3
N Control	DO mg/L	6.07	5.20	6.60	0.76	14.34	3
100		5.43	5.00	6.10	0.59	14.09	3
N Control	Hardness mg/L	88.67	88.00	90.00	1.15	1.21	3
100		100.00	100.00	100.00	0.00	0.00	3
N Control	Alkalinitymg/L	62.33	61.00	65.00	2.31	2.44	3
100		107.00	107.00	107.00	0.00	0.00	3
N Control	Conductivity	357.00	353.00	363.00	5.29	0.64	3
100		692.67	690.00	697.00	3.79	0.28	3



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Routine/Repeat			Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (W, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Grab	Composite	Acute Fathead Minnow (100%)	Chronic Toxicity Pimephales promelas larvae (FML) - survival & growth			Refrigeration			
Sampler Name: MIKE TARANGO	Sample Date: 7/7/04	Sample Time: 1108	X		X	X			1		WW	
Sampler Signature: <i>Mike Tarango</i>	Sample Location/Description: Final Effluent to Mojave River Grab											
VVWRA ID # 6224												
Relinquished By (Sign): <i>Mike Tarango</i>	Date/Time: 7/7/09	Received By (Sign): <i>Gina Cloutier</i>	Date/Time: 7/17/09	Relinquished By (Sign): <i>Gina Cloutier</i>	Date/Time: 7/17/09	Received By (Sign): <i>Gina Cloutier</i>	Date/Time: 7/17/09	Print: Gina Cloutier	Print: Gina Cloutier	Company: VVWRA	Company: VVWRA	
Print: MIKE TARANGO	Company: VVWRA	Print: Gina Cloutier	Company: VVWRA	Print: Gina Cloutier	Company: VVWRA	Print: Gina Cloutier	Company: VVWRA	Relinquished By (Sign):	Relinquished By (Sign):	Relinquished By (Sign):	Relinquished By (Sign):	
Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:	Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:	Print:	Print:	Company:	Company:	
Print:		Print:		Print:		Print:		Print: E. MATUKUNO	Print: E. MATUKUNO	Company: AQUATIC BIOASSAY LABORATORIES	Company: AQUATIC BIOASSAY LABORATORIES	
Company:		Company:		Company:		Company:		Company:	Company:	Company:	Company:	
Samples Received on Ice? Yes No			Samples Received Intact? Yes No			Temperature 13.0 °C			Laboratory Notes: WATER = 40.1			Lab #



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

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 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: geloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Repeat		Sample Type		Laboratory Analyses Requested		# Sample Containers		Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic Toxicity Pimephales promelas larvae (FML) - survival & growth		1		Refrigeration		WW	
Sampler Name: Gina Cloutier		Grab									
Sampler Signature: <i>Gina Cloutier</i>		Sample Date		Sample Time							
VWVRA ID #		Sample Location/Description		Sample Date		Sample Time					
wa34		Final Effluent to Mojave River Grab		7/9/19		0530					
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 7/9/19		Received By (Sign): <i>Indey Kuffa</i>		Date/Time: 7/10/19		Relinquished By (Sign):		Received By (Sign):	
Print: Gina Cloutier		0600		Print: Indey Kuffa		1210		Print:		Temp: 18.3°C	
Company: VVWRA				Company: Aquatic Bioassay				Company:		C.H.L.: 20.1	
Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Received By (Sign):		Received By (Sign):	
Print:				Print:				Print:		Print:	
Company:				Company:				Company:		Company:	
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes		Laboratory Notes		Laboratory Notes		Samples sent via Fed Ex to:	
Samples Received on Ice? Yes No		Temperature		Samples Received Intact? Yes No		Temperature		Samples Received Intact? Yes No		Aquatic Bioassay and Consulting Laboratories	
Samples Received Intact? Yes No		Temperature		Samples Received Intact? Yes No		Temperature		Samples Received Intact? Yes No		Lab #	



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples --Repeat		Sample Type		Laboratory Analyses Requested		Sample Preservation Methods		Sample Matrix
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic Toxicity Pimphales promelas larvae (FML) - survival & growth		Refrigeration		(WW, DW, GW, SG)
Sampler Name: Gina Cloutier	Sample Date	Sample Time	Grab					
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time					
6280	Final Effluent to Mojave River Grab	7/13/09	1100	X			X	WW
Sampler Signature: <i>Gina Cloutier</i>								
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 7/13/09		Relinquished By (Sign):		Date/Time:		Received By (Sign):
Print: Gina Cloutier		1100		Print: _____		Date/Time: _____		Print: _____
Company: VVWRA				Company: _____				Company: _____
Relinquished By (Sign): _____		Date/Time: _____		Relinquished By (Sign):		Date/Time:		Received By (Sign):
Print: _____				Print: _____		Date/Time: 7-14-09		Print: E. MATUMINO
Company: _____				Company: _____				Company: AQUATIC BIOASSAY LABORATORIES
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes				Lab #
Samples Received on Ice? Yes No		21.6 °C		CAMPBELL - 601				Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories
Samples Received Intact? Yes No								



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
July 28, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	22 July - 09
ABC LAB. NO.:	VIC0709.116

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50 = 100 % Survival in 100 % Sample
TUa = 0.00

Yours very truly,

Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/22/2009	Test ID: VIC0709116	Sample ID: CA0000000
End Date: 7/26/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/21/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

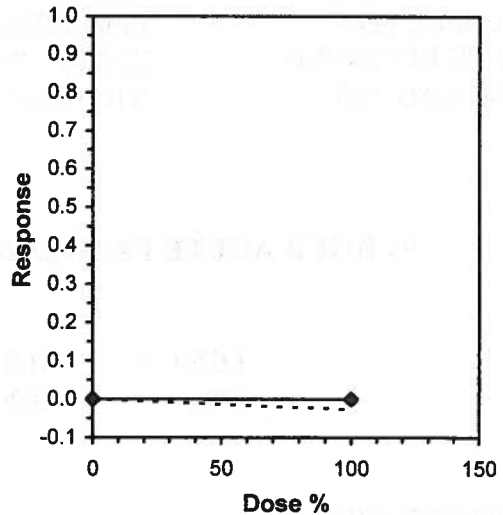
Conc-%	1	2	3	4
N Control	0.9000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.9750	1.0000	1.3713	1.2490	1.4120	5.942	4				0.9875	1.0000
100	1.0000	1.0256	1.4120	1.4120	1.4120	0.000	2	-0.667	2.132	0.1303	0.9875	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.72054	0.713	-1.9365	3.95833		
Equality of variance cannot be confirmed						
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	0.0656	0.06828	0.00221	0.00498	0.54147	1, 4
Treatments vs N Control						

Linear Interpolation (200 Resamples)

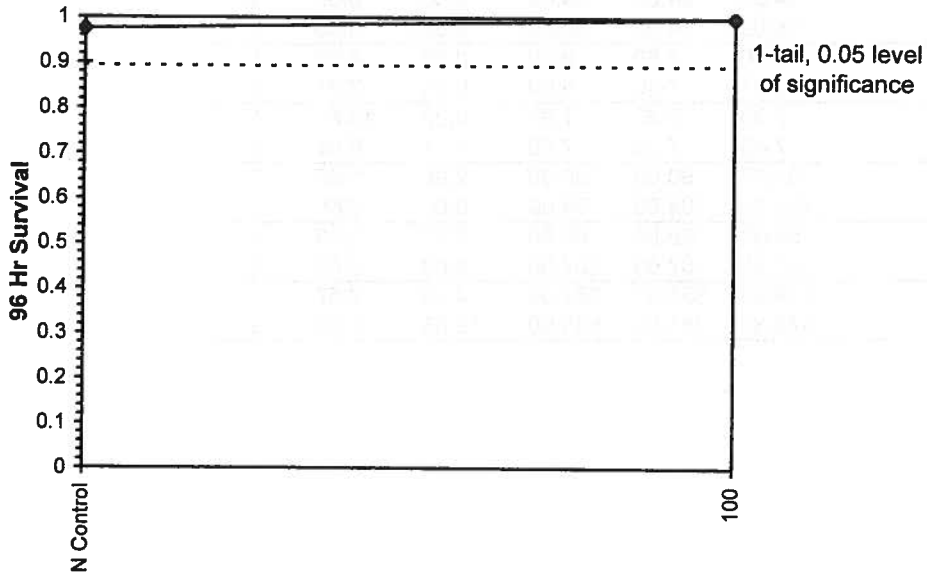
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/22/2009	Test ID: VIC0709116	Sample ID: CA0000000
End Date: 7/26/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/21/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Dose-Response Plot

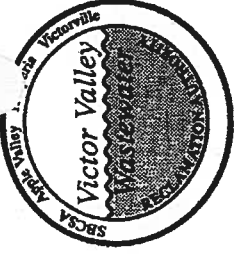


Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 7/22/2009	Test ID: VIC0709116	Sample ID: CA0000000
End Date: 7/26/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/21/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.00	24.00	24.00	0.00	0.00	3
100		24.00	24.00	24.00	0.00	0.00	3
N Control	pH	7.90	7.80	8.00	0.10	4.00	3
100		7.67	7.40	8.00	0.31	7.21	3
N Control	DO mg/L	7.33	6.20	7.90	0.98	13.51	3
100		7.40	7.20	7.50	0.17	5.62	3
N Control	Hardness mg/L	91.67	90.00	95.00	2.89	1.85	3
100		104.00	104.00	104.00	0.00	0.00	3
N Control	Alkalinitymg/L	62.67	60.00	64.00	2.31	2.43	3
100		107.00	107.00	107.00	0.00	0.00	3
N Control	Conductivity	359.33	356.00	364.00	4.16	0.57	3
100		675.33	661.00	688.00	13.58	0.55	3



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

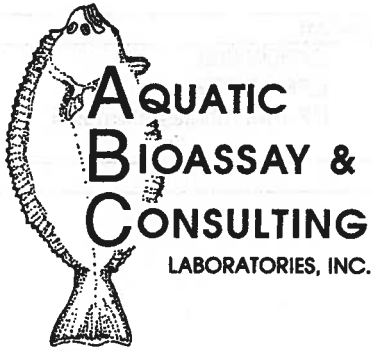
A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly NPDES Samples - Repeat		Sample Type		Laboratory Analyses Requested		Sample Preservation Methods		Sample Matrix	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Grab		Acute Fathead (100%)		Refrigeration		(WW, DW, GW, SG)	
Sampler Name: <i>Gina Cloutier</i>		Composite							
Sampler Signature: <i>Gina Cloutier</i>		Sample Date		Sample Time		# Sample Containers			
VVWRA ID #		Sample Location/Description		Grab					
6371		Final Effluent to Mojave River Grab		7/21/09 1030		1		X	
6371		TEMP - 19.1°C							
CW - 60.1									
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 7/21/09		Relinquished By (Sign):		Date/Time: 7/22/09		Received By (Sign):	
Print: <i>Gina Cloutier</i>		Company: VVWRA		Print: _____		Company: _____		Print: _____	
Received By (Sign):		Date/Time: 1100 to Fed X.		Relinquished By (Sign):		Date/Time: 1100		Received By (Sign):	
Print: _____		Company: _____		Print: _____		Company: _____		Print: _____	
Relinquished By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):	
Print: _____		Company: _____		Print: _____		Company: _____		Print: _____	
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes		Laboratory Notes		Samples sent via Fed Ex to:	
Samples Received on Ice? Yes No		Yes No						Aquatic Bioassay and Consulting Laboratories	
Samples Received Intact? Yes No		Yes No						Lab #	



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

October 27, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	14 Oct - 09
ABC LAB. NO.:	VIC1009.152

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50	=	100 % Survival in 100 % Sample
TUa	=	0.00

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-96 Hr Survival

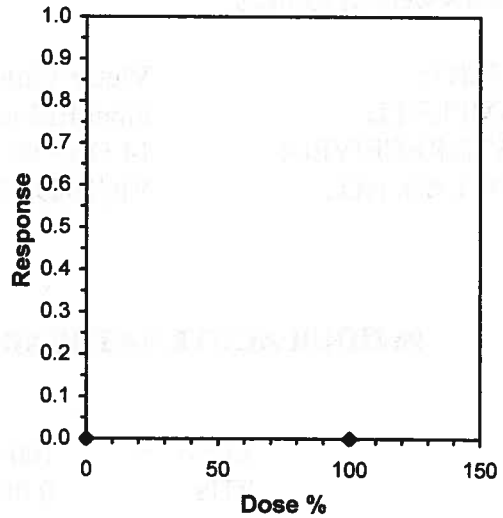
Start Date: 10/14/2009	Test ID: VIC1009152	Sample ID: CA0000000
End Date: 10/18/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 10/13/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000		

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					Isotonic	
			Mean	Min	Max	CV%	N	Mean	N-Mean
N Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	1.0000	1.0000
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	1.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	1	0.713		
Equality of variance cannot be confirmed				

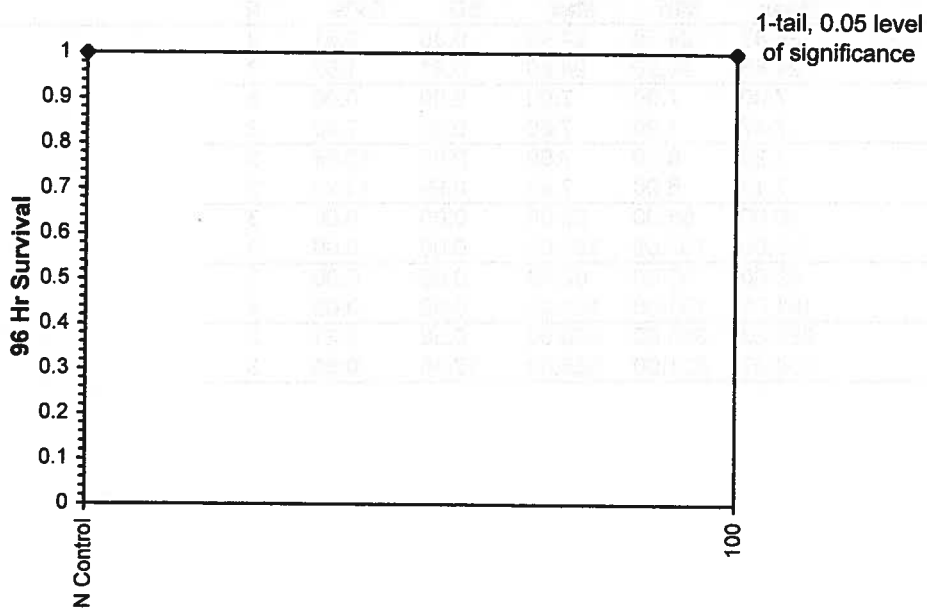
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 10/14/2009 Test ID: VIC1009152 Sample ID: CA0000000
End Date: 10/18/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 10/13/2009 Protocol: EPA-821-R-02-012 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-96 Hr Survival

Start Date: 10/14/2009	Test ID: VIC1009152	Sample ID: CA0000000
End Date: 10/18/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 10/13/2009	Protocol: EPA-821-R-02-012	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.47	24.20	24.90	0.38	2.51	3
100		24.43	24.20	24.60	0.21	1.87	3
N Control	pH	7.90	7.90	7.90	0.00	0.00	3
100		7.47	7.20	7.80	0.31	7.40	3
N Control	DO mg/L	7.20	6.10	7.90	0.96	13.64	3
100		7.13	6.00	7.80	0.99	13.92	3
N Control	Hardness mg/L	95.00	95.00	95.00	0.00	0.00	3
100		157.00	157.00	157.00	0.00	0.00	3
N Control	Alkalinitymg/L	62.00	62.00	62.00	0.00	0.00	3
100		101.00	101.00	101.00	0.00	0.00	3
N Control	Conductivity	355.33	355.00	356.00	0.58	0.21	3
100		639.33	621.00	655.00	17.16	0.65	3



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

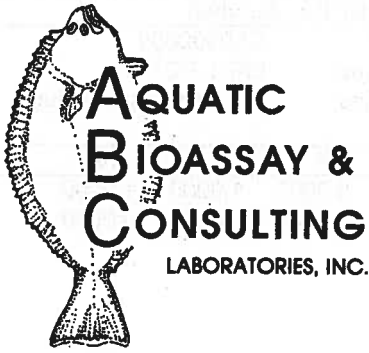
A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwra.com E-mail: gcloutier@vwvra.com

VVWRA ID #	Sample Location/Description	Sample Type		Laboratory Analyses Requested						Sample Preservation Methods		Sample Matrix (W, DW, GW, SG)		
		Sample Date	Sample Time	Grab	Composite	Acute Fathead (100%)	# Sample Containers	Sample Preservation Methods						
								Retigeration						
7312	Final Effluent to Mojave River Grab	10/13/09	0740	X		X	1	X					WW	
Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 10-13-09	Received By (Sign): <i>[Signature]</i>		Date/Time:						Received By (Sign):			
Print: <i>[Name]</i>		0742	Print: <i>[Name]</i>		Print: _____						Print: _____			
Company: <i>[Company]</i>			Company: <i>[Company]</i>		Company: _____						Company: _____			
Relinquished By (Sign): _____		Date/Time: 10-14-09 12:00	Received By (Sign): <i>[Signature]</i>		Date/Time:						Received By (Sign):			
Print: _____			Print: <i>[Name]</i>		Print: _____						Print: _____			
Company: _____			Company: <i>[Company]</i>		Company: _____						Company: _____			
Sample Condition Upon Receipt by Laboratory:				Laboratory Notes _____ _____										
Samples Received on Ice? Yes No Samples Received Intact? Yes No														
Temperature _____ °C														

ATTN: 201



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

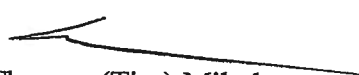
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River
DATE RECEIVED:	21 Jan - 09
ABC LAB. NO.:	VIC0109.210

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	66.67 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	<100.00 %
	TU _c =	>1.00
	LC25 =	46.91 %
	LC50 =	93.81 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/21/2008	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.8000	1.0000
100	0.5000	0.6250	5	5	10	10	0.1749	0.0500	0.5000	0.6250

Hypothesis Test (1-tail, 0.05) **NOEC** **LOEC** **ChV** **TU**

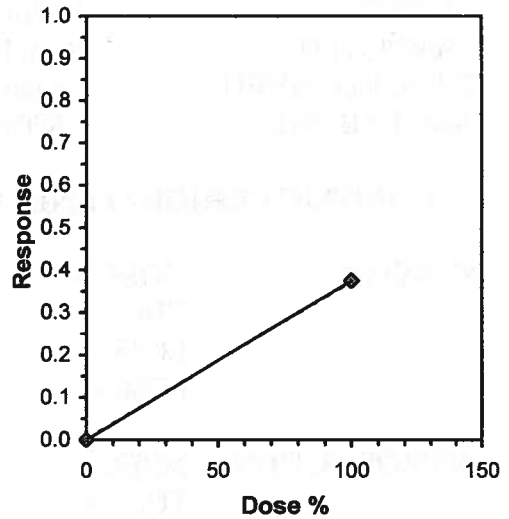
Fisher's Exact Test 100 >100 1

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	13.333			
IC10*	26.667			
IC15*	40.000			
IC20*	53.333			
IC25*	66.667			
IC40	>100			
IC50	>100			

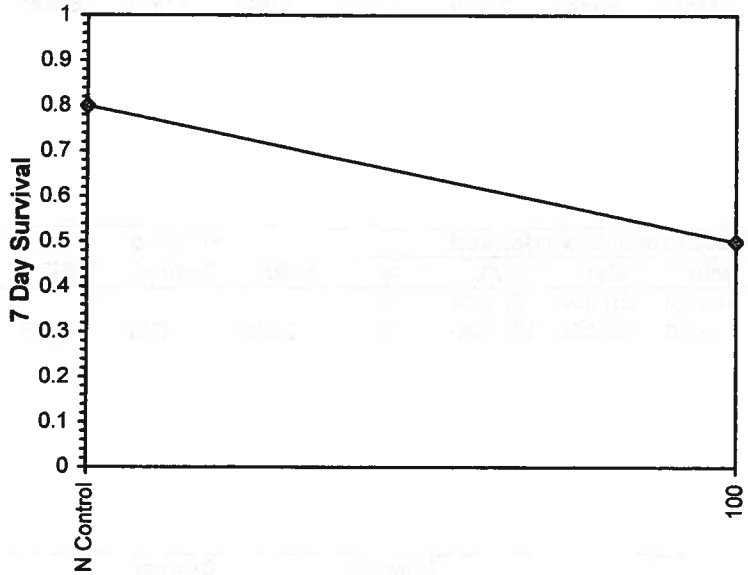
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/21/2008	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	15.000	20.000	15.000	29.000	16.000	17.000	21.000	10.000	20.000	19.000
100	9.000	8.000	36.000	23.000	2.000	1.000	1.000	1.000	2.000	2.000

Conc-%	Mean	N-Mean	Transform: Untransformed				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	18.200	1.0000	18.200	10.000	29.000	27.509	10				18.200	1.0000
*100	8.500	0.4670	8.500	1.000	36.000	139.340	10	2.385	1.730	7.035	8.500	0.4670

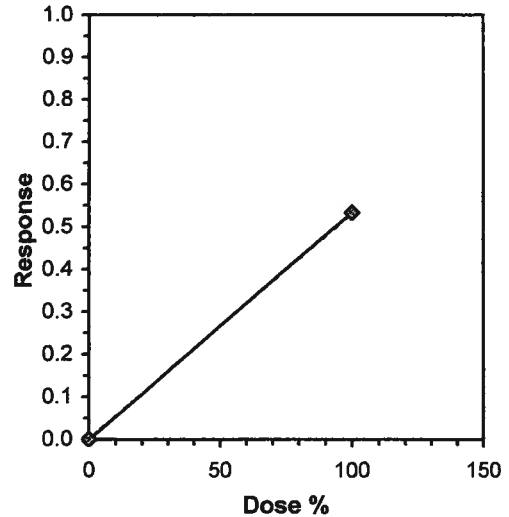
Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.79721	0.868	1.89161	4.10859						
F-Test indicates equal variances (p = 0.02)	5.59619	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			7.03462	0.38652	470.45	82.6722	0.02826	1, 18

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	9.381			
IC10*	18.763			
IC15*	28.144			
IC20*	37.526			
IC25*	46.907			
IC40*	75.052			
IC50*	93.814			

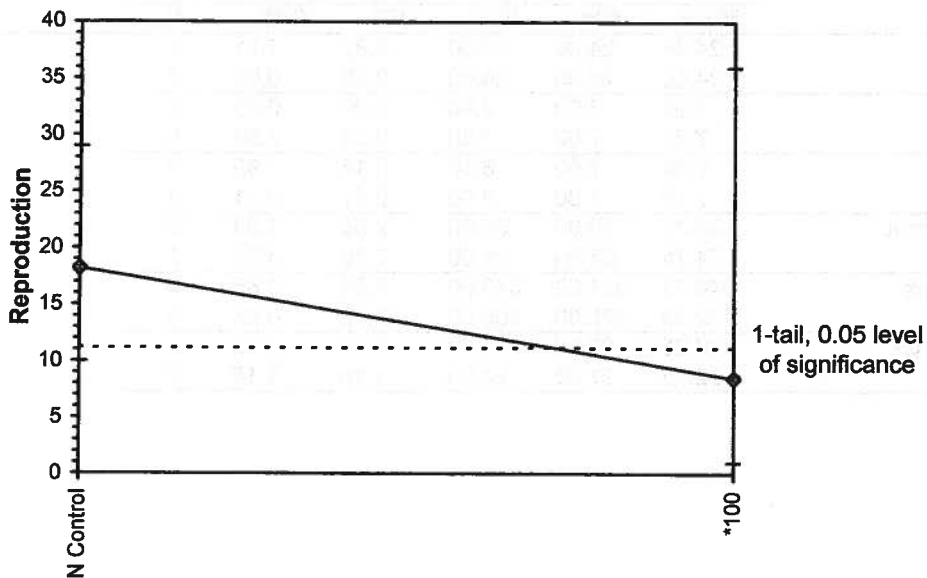
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.44	24.00	26.00	0.82	3.71	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	7.90	7.90	7.90	0.00	0.00	8
100		7.28	7.00	7.80	0.31	7.60	8
N Control	DO mg/L	7.84	7.60	8.10	0.15	4.95	8
100		7.79	7.00	8.50	0.51	9.21	8
N Control	Hardness mg/L	82.75	80.00	88.00	2.55	1.93	8
100		74.75	65.00	81.00	7.19	3.59	8
N Control	Cond-umhos	340.13	334.00	349.00	4.94	0.65	8
100		782.38	678.00	805.00	42.42	0.83	8
N Control	Alkalinity mg/L	60.25	60.00	61.00	0.46	1.13	8
100		92.75	91.00	94.00	1.16	1.16	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

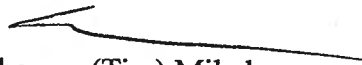
CLIENT: Victor Valley WRA
SAMPLE I.D.: Upstream Mojave River
DATE RECEIVED: 21 Jan - 09
ABC LAB. NO.: VIC0109.212

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %
 TU_c = 1.00
 LC25 = >100.00 %
 LC50 = >100.00 %

REPRODUCTION NOEC = 100.00 %
 TU_c = 1.00
 LC25 = >100.00 %
 LC50 = >100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

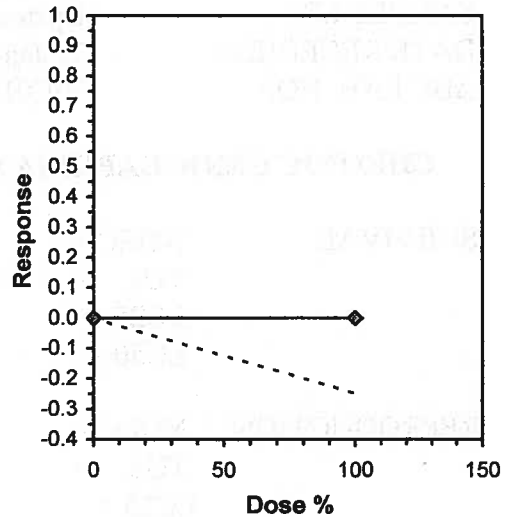
Start Date: 1/21/2008	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.9000	1.0000
100	1.0000	1.2500	0	10	10	10	0.2368	0.0500	0.9000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

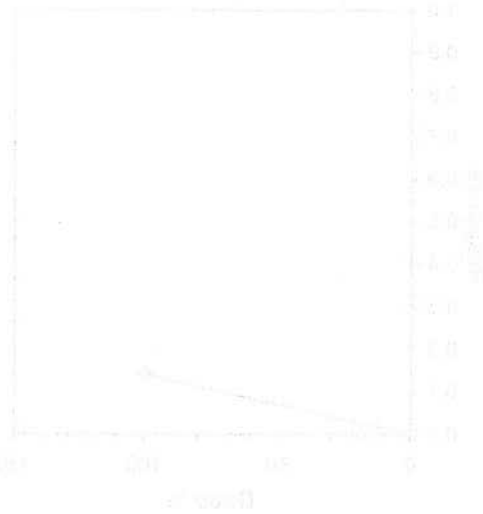
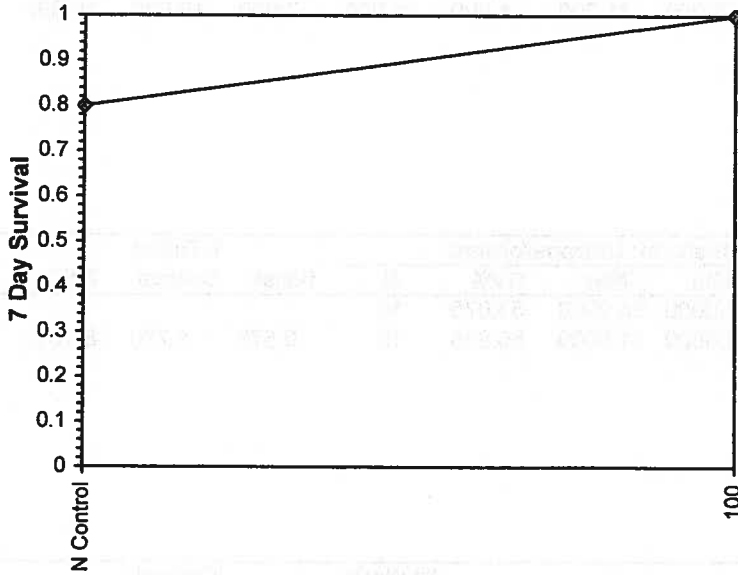
Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/21/2008 Test ID: VIC0109212 Sample ID: CA000000
End Date: 1/28/2008 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2008 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	12.000	17.000	20.000	13.000	31.000	24.000	35.000	27.000	8.000	4.000
100	7.000	18.000	15.000	10.000	41.000	4.000	24.000	7.000	19.000	19.000

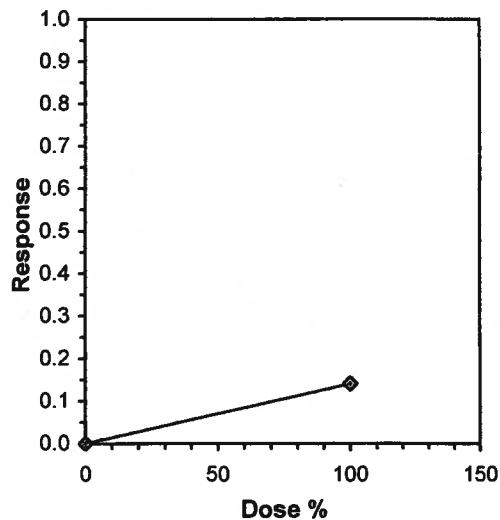
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	19.100	1.0000	19.1000	4.0000	35.0000	53.075	10				19.100	1.0000	
100	16.400	0.8586	16.4000	4.0000	41.0000	65.936	10	0.576	1.730	8.1089	16.400	0.8586	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.96021	0.868	0.68547	0.26374						
F-Test indicates equal variances ($p = 0.85$)	1.13785	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	8.10888	0.42455	36.45	109.85	0.57172	1, 18
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	35.370			
IC10*	70.741			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

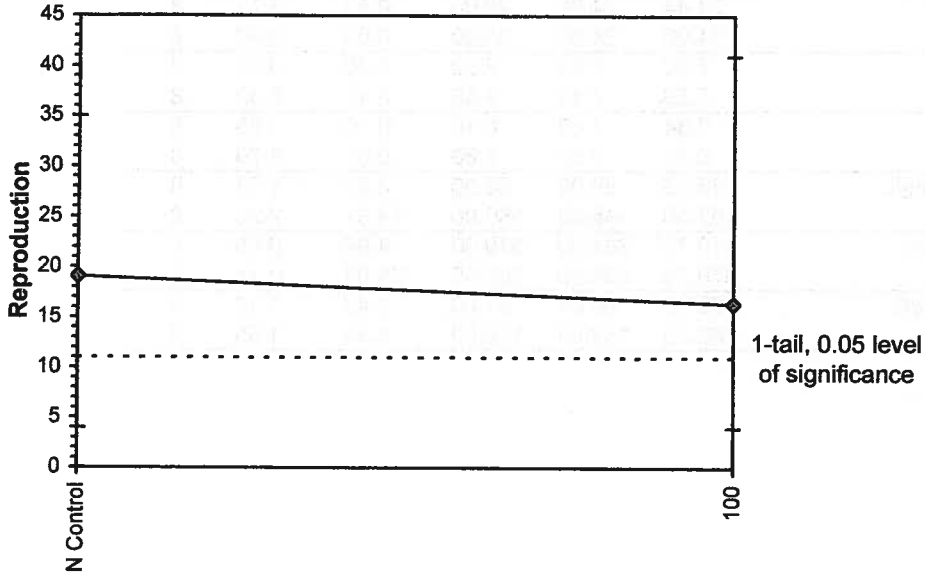
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.44	24.00	26.00	0.82	3.71	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	7.90	7.90	7.90	0.00	0.00	8
100		7.58	7.40	7.80	0.17	5.39	8
N Control	DO mg/L	7.84	7.60	8.10	0.15	4.95	8
100		8.13	7.50	8.80	0.51	8.76	8
N Control	Hardness mg/L	82.75	80.00	88.00	2.55	1.93	8
100		167.50	148.00	186.00	14.37	2.26	8
N Control	Cond-umhos	340.13	334.00	349.00	4.94	0.65	8
100		676.75	634.00	702.00	25.01	0.74	8
N Control	Alkalinity mg/L	60.25	60.00	61.00	0.46	1.13	8
100		166.25	153.00	178.00	9.48	1.85	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:


We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT: Victor Valley WRA
SAMPLE I.D.: Downstream Mojave River
DATE RECEIVED: 21 Jan - 09
ABC LAB. NO.: VIC0109.213

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	66.67 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	<100.00 %
	TU _c =	>1.00
	LC25 =	54.89 %
	LC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/21/2008	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
100	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000	0.0000	0.0000

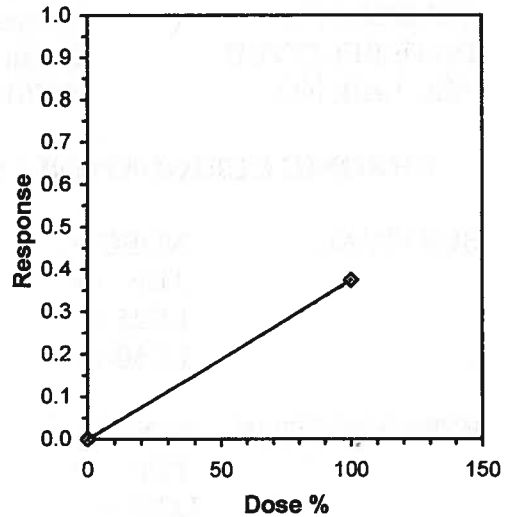
Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.8000	1.0000
100	0.5000	0.6250	5	5	10	10	0.1749	0.0500	0.5000	0.6250

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	13.333			
IC10*	26.667			
IC15*	40.000			
IC20*	53.333			
IC25*	66.667			
IC40	>100			
IC50	>100			

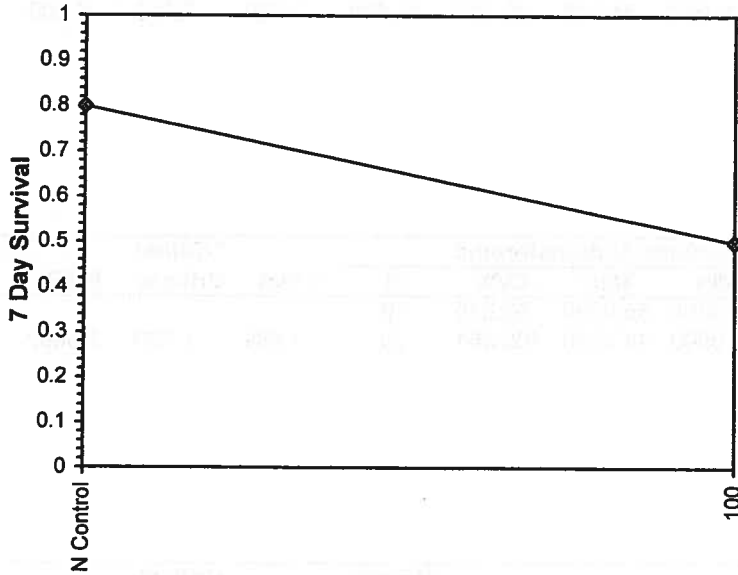
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/21/2008	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	12.000	17.000	20.000	13.000	31.000	24.000	35.000	27.000	8.000	4.000
100	4.000	3.000	7.000	2.000	34.000	23.000	13.000	2.000	7.000	9.000

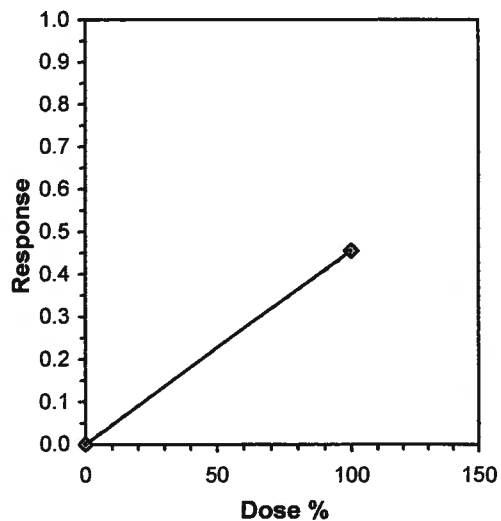
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	19.100	1.0000	19.1000	4.0000	35.0000	53.075	10				19.100	1.0000	
*100	10.400	0.5445	10.4000	2.0000	34.0000	100.561	10	1.889	1.730	7.9682	10.400	0.5445	

Auxiliary Tests					Statistic	Critical	Skew	Kurt				
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)					0.93722	0.868	0.82084	0.10857				
F-Test indicates equal variances ($p = 0.93$)					1.06433	6.54109						
Hypothesis Test (1-tail, 0.05)			NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test			<100	100			7.96823	0.41718	378.45	106.072	0.07513	1, 18
Treatments vs N Control												

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	10.977			
IC10*	21.954			
IC15*	32.931			
IC20*	43.908			
IC25*	54.885			
IC40*	87.816			
IC50	>100			

* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008

Test ID: VIC0109213

Sample ID:

CA0000000

End Date: 1/28/2008

Lab ID: CAABC

Sample Type:

EFF1-POTW

Sample Date: 1/20/2008

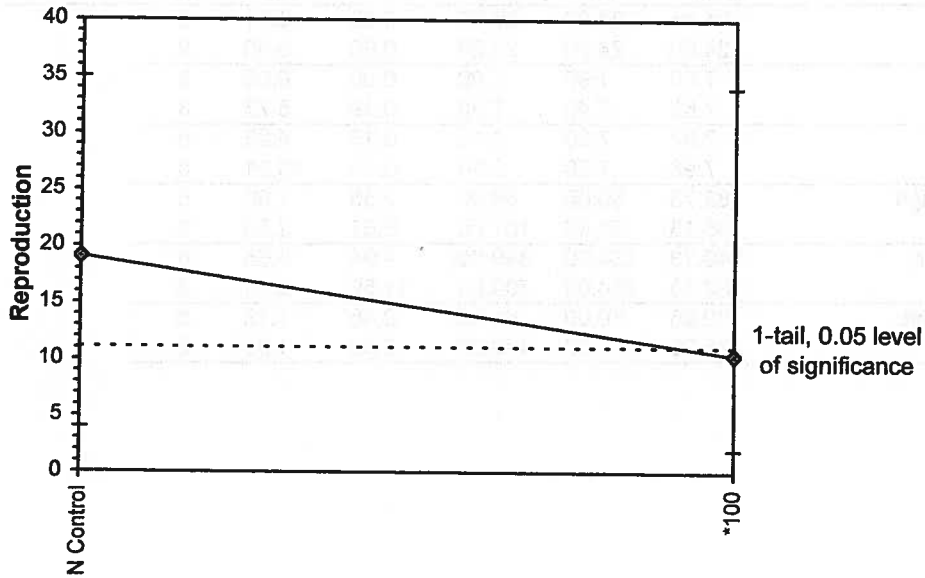
Protocol: EPA-821-R-02-013

Test Species:

CD-Ceriodaphnia dubia

Comments: Downstream Mojave River

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/21/2008	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/28/2008	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2008	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.44	24.00	26.00	0.82	3.71	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	7.90	7.90	7.90	0.00	0.00	8
100		7.63	7.40	7.90	0.19	5.73	8
N Control	DO mg/L	7.84	7.60	8.10	0.15	4.95	8
100		7.98	7.30	9.20	0.66	10.21	8
N Control	Hardness mg/L	82.75	80.00	88.00	2.55	1.93	8
100		95.13	91.00	107.00	6.51	2.68	8
N Control	Cond-umhos	340.13	334.00	349.00	4.94	0.65	8
100		782.13	764.00	799.00	11.59	0.44	8
N Control	Alkalinity mg/L	60.25	60.00	61.00	0.46	1.13	8
100		135.00	132.00	140.00	3.55	1.39	8



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

VWVRA ID #	Sample Location/Description	Sample Type		Laboratory Analyses Requested					# Sample Containers	Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)
		Grab	Composite	Acute Fathead Minnow (100%)	Chronic 8 day FML Teratogenicity (100%)	Chronic Ceriodaphnia	Refrigeration					
3586	Final Effluent to Mojave River Grab	X		X	X	X			2	X		WW
3587	Upstream Mojave River	X		X	X	X			1	X		SW
3588	Downstream Mojave River	X		X	X	X			1	X		SW

Relinquished By (Sign): <i>Roy Dagnino</i> Print: Roy Dagnino Company: VVWWRA	Date/Time: 1-20-09 1050	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWWRA	Date/Time: 1-21-09 1115	Relinquished By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWWRA	Date/Time: 1-21-09 1115	Received By (Sign): <i>E. Matsumoto</i> Print: E. Matsumoto Company: AQUATIC BIOASSAY LABORATORIES	Date/Time:
Relinquished By (Sign): Print: Company:	Date/Time:	Received By (Sign): Print: Company:	Date/Time:	Relinquished By (Sign): Print: Company:	Date/Time:	Received By (Sign): Print: Company:	Date/Time:

Sample Condition Upon Receipt by Laboratory: Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature 14 °C	Laboratory Notes
--	----------------------	------------------

Attachment - 20.1



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Routine		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)		
Project Contact: Gina Cloutier (760) 246-8638 ext. 216	Sampler Name: Sandra Perea	Sampler Signature: <i>Sandra Perea</i>	Sample Date	Sample Time	Grab	Composite	Chronic 8 day FML	Chronic	Ceriodaphnia		# Sample Containers	Refrigeration
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab	Composite		X	X		1	X	WW
3614	Final Effluent to Mojave River Grab	1/22/09	1050	X			X	X		1	X	SW
3615	Upstream Mojave River	1/22/09	1025	X			X	X		1	X	SW
3616	Downstream Mojave River	1/22/09	0935	X			X	X		1	X	SW
Relinquished By (Sign): <i>Sandra Perea</i> Print: Sandra Perea Company: VVWRA		Date/Time: 1/22/09 1055	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWRA	Date/Time: 01/23/09 1030	Relinquished By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWRA	Date/Time: 01/23/09 1030	Received By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWRA	Sample Preservation Methods		Received By (Sign): <i>Sandra Perea</i> Print: Sandra Perea Company: VVWRA	Temp: 9.7°C CHL 20.1	
Relinquished By (Sign): _____ Print: _____ Company: _____		Date/Time: _____	Received By (Sign): _____ Print: _____ Company: _____	Date/Time: _____	Relinquished By (Sign): _____ Print: _____ Company: _____	Date/Time: _____	Received By (Sign): _____ Print: _____ Company: _____	Sample Preservation Methods		Received By (Sign): _____ Print: _____ Company: _____		
Sample Condition: Upon Receipt by Laboratory:		Samples Received on Ice? Yes No		Temperature _____ °C		Samples Received Intact? Yes No		Laboratory Notes		Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #		



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Routine			Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (W, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Composite						Refrigeration			
Sampler Signature: Sandra Perea	Sample Location/Description	Sample Date	Sample Time	Grab	Chronic 8 day FML Teratogenicity (100%)	Chronic Ceriodaphnia						
3461	Final Effluent to Mojave River Grab	1/26/09	1135	X	X	X			X		WW	
3462	Upstream Mojave River	1/26/09	1105	X	X	X			X		SW	
3463	Downstream Mojave River	1/26/09	1005	X	X	X			X		SW	
Relinquished By (Sign): <i>Sandra Perea</i> Print: Sandra Perea Company: VVWRA			Date/Time: 1/26/09 1142		Relinquished By (Sign): <i>Gina Cloutier</i> Print: Gina Cloutier Company: VVWRA		Date/Time: 1/27/09 1001		Received By (Sign): <i>Enrique</i> Print: E. MATIAS Company: QUANTIC BIOASSAY			
Relinquished By (Sign):			Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):			
Print: _____ Company: _____					Print: _____ Company: _____				Print: _____ Company: _____			
Sample Condition Upon Receipt by Laboratory: Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temperature <u>4.0</u> °C					Laboratory Notes			Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #				

CALIFORNIA 240-1



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHnia SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 6 January - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 5.00 ug/l

IC25 = 4.36 ug/l

IC50 = 6.04 ug/l


ENDPOINT: REPRODUCTION

NOEC = 3.00 ug/l

IC25 = 4.07 ug/l

IC50 = 5.37 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

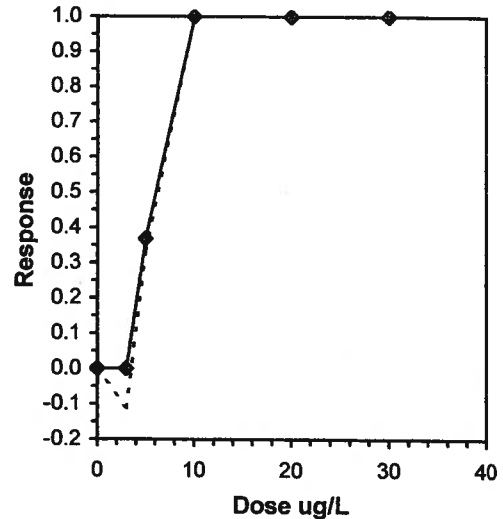
Start Date: 1/6/2009	Test ID: CER010609	Sample ID: CA0000000
End Date: 1/13/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/6/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.0000	1.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	0.9000	1.0000	1	9	10	10			0.9500	1.0000
3	1.0000	1.1111	0	10	10	10	0.5000	0.0500	0.9500	1.0000
5	0.6000	0.6667	4	6	10	10	0.1517	0.0500	0.6000	0.6316
10	0.0000	0.0000	10	0	10	10			0.0000	0.0000
20	0.0000	0.0000	10	0	10	10			0.0000	0.0000
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	5	10	7.07107	
Treatments vs N Control				

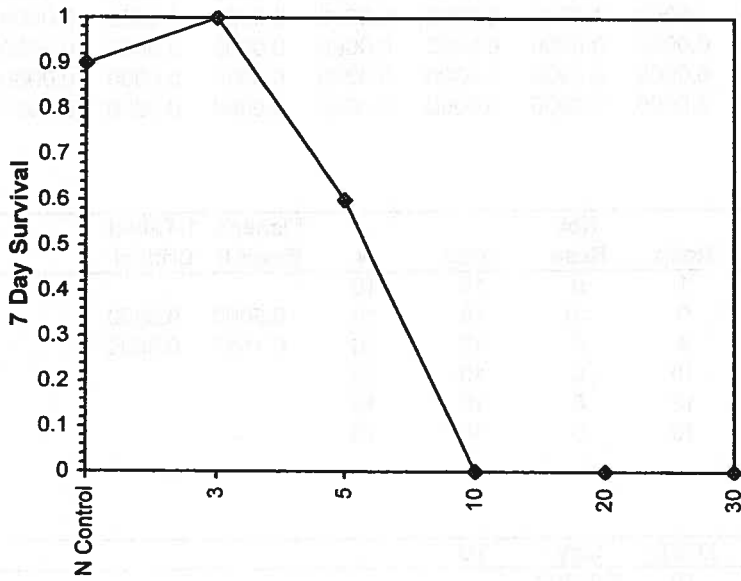
Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	3.2714	0.3916	3.1462	4.9000	3.4081
IC10	3.5429	0.4843	3.2923	5.2500	2.1985
IC15	3.8143	0.5512	3.4385	5.5139	1.5817
IC20	4.0857	0.5986	3.5846	5.7778	1.2148
IC25	4.3571	0.6381	3.7308	6.0417	0.9555
IC40	5.2500	0.7647	4.1692	6.8333	0.3638
IC50	6.0417	0.8398	4.4615	7.3611	-0.1092



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/6/2009	Test ID: CER010609	Sample ID: CA0000000
End Date: 1/13/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/6/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

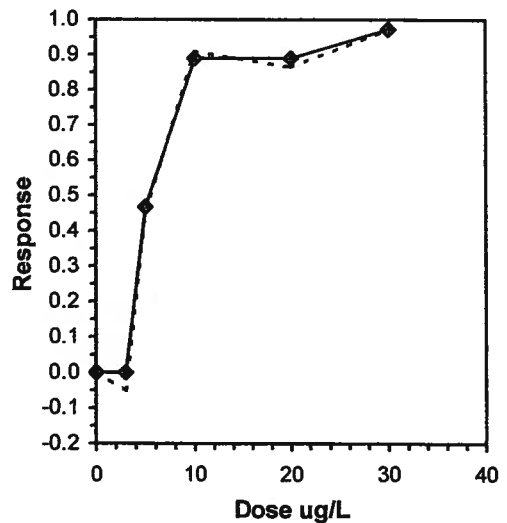
Start Date: 1/6/2009	Test ID: CER010609	Sample ID: CA0000000
End Date: 1/13/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/6/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	18.000	0.000	19.000	18.000	22.000	20.000	18.000	19.000	24.000	20.000
3	19.000	20.000	19.000	18.000	21.000	18.000	17.000	20.000	20.000	15.000
5	16.000	15.000	18.000	14.000	14.000	0.000	5.000	0.000	15.000	0.000
10	0.000	0.000	3.000	0.000	2.000	2.000	0.000	4.000	5.000	0.000
20	4.000	2.000	0.000	2.000	2.000	3.000	2.000	3.000	4.000	2.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000	0.000	0.000

Conc-ug/L	Transform: Untransformed							t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N				Mean	N-Mean
N Control	17.800	1.0000	17.800	0.000	24.000	36.773	10				18.250	1.0000
3	18.700	1.0506	18.700	15.000	21.000	9.449	10	-0.471	2.287	4.372	18.250	1.0000
*5	9.700	0.5449	9.700	0.000	18.000	77.308	10	4.236	2.287	4.372	9.700	0.5315
*10	1.600	0.0899	1.600	0.000	5.000	118.585	10	8.473	2.287	4.372	2.000	0.1096
*20	2.400	0.1348	2.400	0.000	4.000	48.908	10	8.054	2.287	4.372	2.000	0.1096
*30	0.500	0.0281	0.500	0.000	5.000	316.228	10	9.048	2.287	4.372	0.500	0.0274

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.74314	1.035	-1.738	6.14249						
Bartlett's Test indicates unequal variances (p = 6.25E-10)	51.6891	15.0863								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	3	5	3.87298		4.37222	0.24563	681.55	18.2796	2.4E-16	5, 54
Treatments vs N Control										

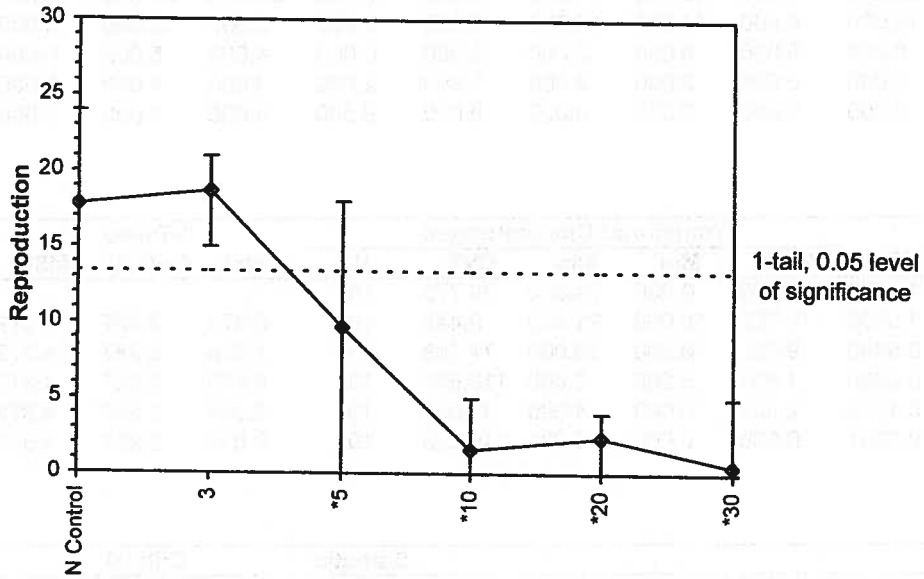
Point	Linear Interpolation (200 Resamples)				
	ug/L	SD	95% CL		Skew
IC05	3.2135	0.5327	1.4044	3.4245	-2.1681
IC10	3.4269	0.2685	2.8087	3.8491	0.4025
IC15	3.6404	0.2935	3.1728	4.2736	1.9281
IC20	3.8538	0.3452	3.3609	4.6981	1.7524
IC25	4.0673	0.3991	3.5743	5.1129	1.5849
IC40	4.7076	0.6082	4.0915	6.2865	1.1586
IC50	5.3734	0.8084	4.3680	7.0804	0.5511



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/6/2009 Test ID: CER010609 Sample ID: CA0000000
End Date: 1/13/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 1/6/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/6/2009	Test ID: CER010609	Sample ID: CA000000
End Date: 1/13/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/6/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

		Auxiliary Data Summary					
Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.48	24.00	26.00	0.88	3.84	8
3		24.00	24.00	24.00	0.00	0.00	8
5		24.00	24.00	24.00	0.00	0.00	8
10		24.00	24.00	24.00	0.00	0.00	5
20		24.00	24.00	24.00	0.00	0.00	5
30		24.00	24.00	24.00	0.00	0.00	5
N Control	pH	7.88	7.80	7.90	0.05	2.73	8
3		7.34	7.00	7.70	0.24	6.66	8
5		7.29	7.00	7.60	0.19	5.96	8
10		7.24	7.00	7.50	0.18	5.89	5
20		7.18	7.00	7.40	0.16	5.65	5
30		7.12	7.00	7.30	0.13	5.07	5
N Control	DO mg/L	7.81	7.40	8.40	0.36	7.68	8
3		7.61	7.00	8.10	0.35	7.80	8
5		7.85	7.40	8.50	0.34	7.41	8
10		7.68	5.70	8.50	1.12	13.80	5
20		7.74	5.70	8.60	1.16	13.92	5
30		7.78	5.70	8.50	1.17	13.90	5
N Control	Hardness mg/L	86.13	80.00	90.00	3.48	2.17	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		82.00	82.00	82.00	0.00	0.00	5
N Control	Cond umhos	351.88	342.00	360.00	6.83	0.74	8
3		349.63	331.00	372.00	13.06	1.03	8
5		337.25	321.00	352.00	9.24	0.90	8
10		326.80	319.00	331.00	5.50	0.72	5
20		328.40	324.00	332.00	3.29	0.55	5
30		327.80	320.00	332.00	5.50	0.72	5
N Control	Alkalinity mg/L	60.75	60.00	62.00	1.04	1.67	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		55.00	55.00	55.00	0.00	0.00	5

RECEIVED
3-30-09



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
March 12, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

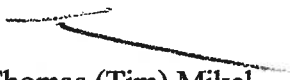
CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	24 Feb - 09
ABC LAB. NO.:	VIC0209.381

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

REPRODUCTION	NOEC =	<100.00 %
	TU _c =	>1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

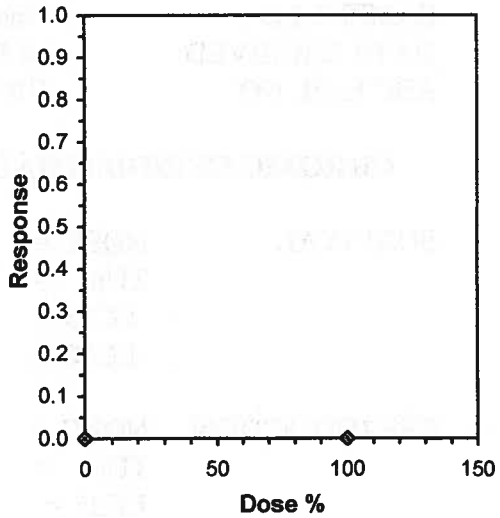
Start Date: 2/24/2009	Test ID: VIC0209381	Sample ID: CA0000000
End Date: 3/3/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 2/23/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

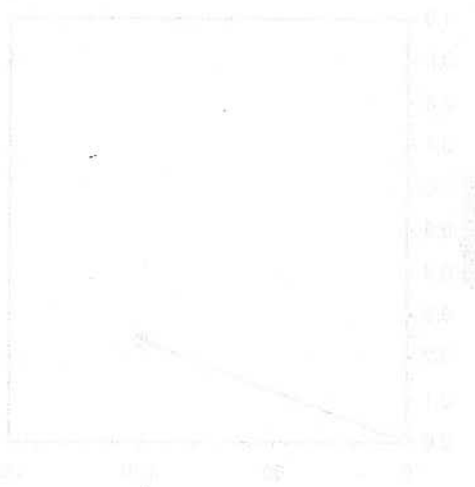
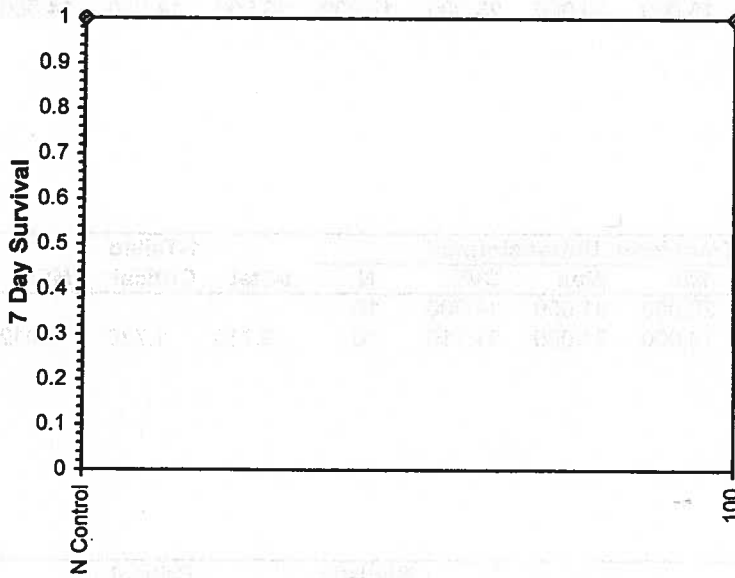
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 2/24/2009 Test ID: VIC0209381 Sample ID: CA0000000
End Date: 3/3/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 2/23/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/24/2009	Test ID: VIC0209381	Sample ID: CA0000000
End Date: 3/3/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 2/23/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	30.000	20.000	31.000	30.000	29.000	25.000	26.000	22.000	24.000	26.000
100	29.000	22.000	31.000	15.000	20.000	23.000	19.000	13.000	14.000	14.000

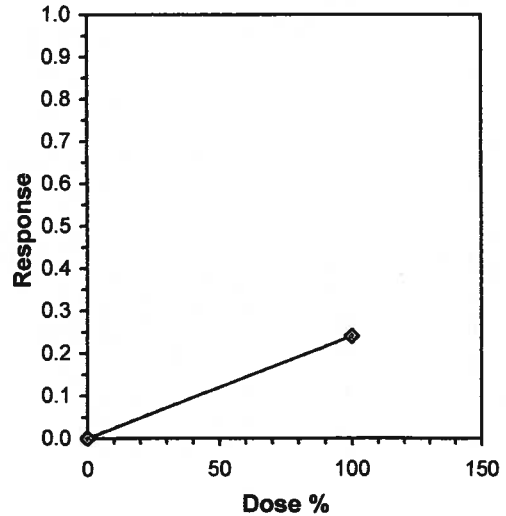
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	26.300	1.0000	26.300	20.000	31.000	14.005	10				26.300	1.0000	
*100	20.000	0.7605	20.000	13.000	31.000	31.710	10	2.716	1.730	4.012	20.000	0.7605	

Auxiliary Tests							Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)							0.94821	0.868	0.48874	-0.2251		
F-Test indicates equal variances (p = 0.12)							2.96478	6.54109				
Hypothesis Test (1-tail, 0.05)			NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test			<100	100			4.01229	0.15256	198.45	26.8944	0.01415	1, 18
Treatments vs N Control												

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	20.873			
IC10*	41.746			
IC15*	62.619			
IC20*	83.492			
IC25	>100			
IC40	>100			
IC50	>100			

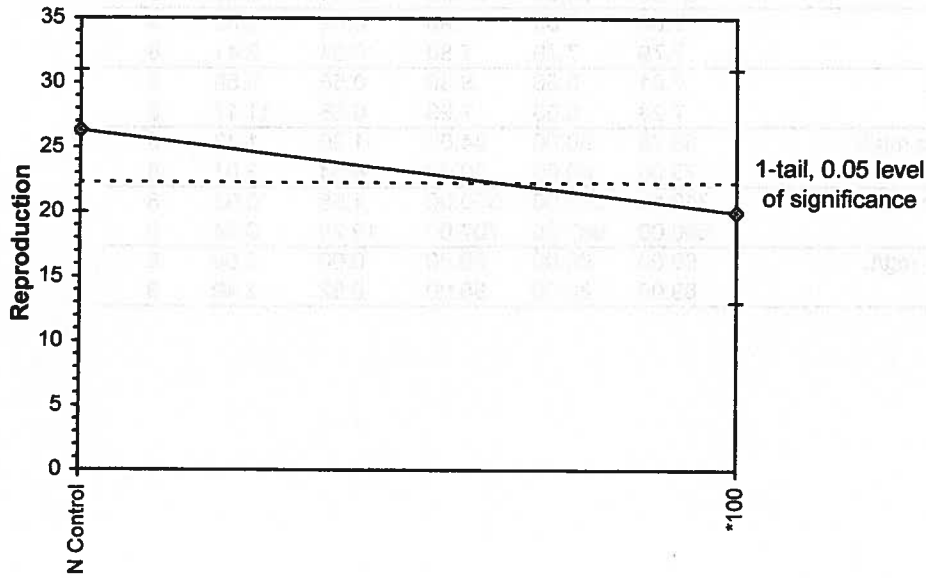
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/24/2009 Test ID: VIC0209381 Sample ID: CA0000000
End Date: 3/3/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 2/23/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/24/2009	Test ID: VIC0209381	Sample ID: CA0000000
End Date: 3/3/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 2/23/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.20	24.00	25.60	0.57	3.11	8
100		24.23	24.00	25.80	0.64	3.29	8
N Control	pH	7.89	7.80	7.90	0.04	2.38	8
100		7.79	7.70	7.80	0.04	2.41	8
N Control	DO mg/L	7.81	6.50	8.30	0.56	9.59	8
100		7.28	6.00	7.90	0.66	11.17	8
N Control	Hardness mg/L	83.25	80.00	84.00	1.39	1.42	8
100		73.00	69.00	80.00	4.84	3.01	8
N Control	Cond-umhos	342.13	336.00	350.00	4.55	0.62	8
100		690.00	657.00	707.00	19.78	0.64	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
100		89.00	80.00	98.00	9.62	3.49	8

CHAIN OF CUSTODY RECORD

Client: Victor Valley Wastewater Reclamation Authority Address 15776 Main Street, Suite 3 Hesperia, CA 92345 Phone Number: 760-244-8038 x4.216	Project Name/Number: Sample # 2943 Project Mgr. Gina Cloutier P.O. # Open Sampled By (signature) Omar Cloutier	Volume/Number 1 Gallon Sample ID Final Effluent # 3943	Analysis Chronic Ceriodaphnia dubia
Date 2/23/09 Time 0915 Comp <input checked="" type="checkbox"/> Grb <input checked="" type="checkbox"/> Matrix WW			
Relinquished By: (signature) <i>Omar Cloutier</i> Date: Time: 2/23/09 0920 Received By: (signature) <i>Enata</i> Date: Time: 2-24-09 1024 Relinquished By: (signature) _____ Date: Time: _____ Received By: (signature) _____ Date: Time: _____ Temp. upon sample receipt: 13.1 °C			

Chronic = 201



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California
 Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Chronic Ceriodaphnia - Accelerated Monitoring (Month 1)		Sample Type		Laboratory Analyses Requested					Sample Preservation Methods		Sample Matrix
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite							Refrigeration		(WW, DW, GW, SG)
Sampler Name: <i>Gina Cloutier</i>		Grab									
Sampler Signature: <i>Gina Cloutier</i>		X									
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Acute Fathead Minnow (100%)	Chronic 8 day FML Teratogenicity (100%)	Chronic Ceriodaphnia					
3962	Final Effluent to Mojave River Grab	7/25/09	0950		X				X		WW
	TEMP - 5.7 °C										
	CHK - <1										
Relinquished By (Sign): <i>Gina Cloutier</i>		Received By (Sign): <i>R. Jeyan</i>		Relinquished By (Sign):		Received By (Sign):		Date/Time:		Date/Time:	
Print: <i>Gina Cloutier</i>		Print: <i>R. Jeyan</i>		Print: _____		Print: _____		Date/Time: _____		Date/Time: _____	
Company: <i>VVWRA</i>		Company: <i>VVWRA</i>		Company: _____		Company: _____		Print: _____		Print: _____	
Relinquished By (Sign):		Received By (Sign):		Relinquished By (Sign):		Received By (Sign):		Date/Time:		Date/Time:	
Print: _____		Print: _____		Print: _____		Print: _____		Print: _____		Print: _____	
Company: _____		Company: _____		Company: _____		Company: _____		Company: _____		Company: _____	
Sample Condition Upon Receipt by Laboratory:				Laboratory Notes				Samples sent via Fed Ex to:			
Samples Received Intact? Yes No				Temperature _____ °C				Aquatic Bioassay and Consulting Laboratories			
Samples Received Intact? Yes No								Lab #			



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Chronic Ceriodaphnia – Accelerated Monitoring (Month 1)		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite						Refrigeration		WW	
Sampler Name: <i>Gina Cloutier</i>		Grab									
Sampler Signature: <i>Gina Cloutier</i>	Sample Date	Sample Time									
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Chronic Ceriodaphnia	Chronic 8 day FML Teratogenicity (100%)	Chronic Ceriodaphnia					
3984	Final Effluent to Mojave River Grab	2/27/09	1045	X							
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 2/27/09 PSD		Relinquished By (Sign):		Date/Time: 2/28/09		Received By (Sign):			
Print: <i>Gina Cloutier</i>		Company: <i>VVWRA</i>		Print: <i>A. Ramos</i>		Company: <i>Academy</i>		Print: _____			
Relinquished By (Sign): _____		Date/Time: _____		Relinquished By (Sign):		Date/Time: _____		Received By (Sign):			
Print: _____		Company: _____		Print: _____		Company: _____		Print: _____			
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes				Samples sent via Fed Ex to:			
Samples Received on Ice? Yes No		Yes No						Aquatic Bioassay and Consulting Laboratories			
Samples Received Intact? Yes No		Yes No						Lab #			

Initial Temp = 9.9 C



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 3 February - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 3.00 ug/l

IC25 = 3.75 ug/l

IC50 = 4.50 ug/l

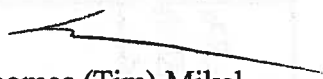
ENDPOINT: REPRODUCTION

NOEC = 3.00 ug/l

IC25 = 3.81 ug/l

IC50 = 4.61 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

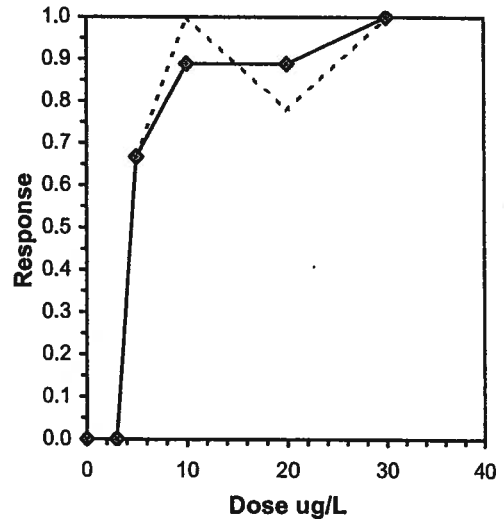
Start Date: 2/3/2009	Test ID: CER020309	Sample ID: CA0000000
End Date: 2/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 2/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
5	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	0.9000	1.0000	1	9	10	10			0.9000	1.0000
3	0.9000	1.0000	1	9	10	10	0.7632	0.0500	0.9000	1.0000
*5	0.3000	0.3333	7	3	10	10	0.0099	0.0500	0.3000	0.3333
10	0.0000	0.0000	10	0	10	10			0.1000	0.1111
*20	0.2000	0.2222	8	2	10	10	0.0027	0.0500	0.1000	0.1111
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	3	5	3.87298	
Treatments vs N Control				

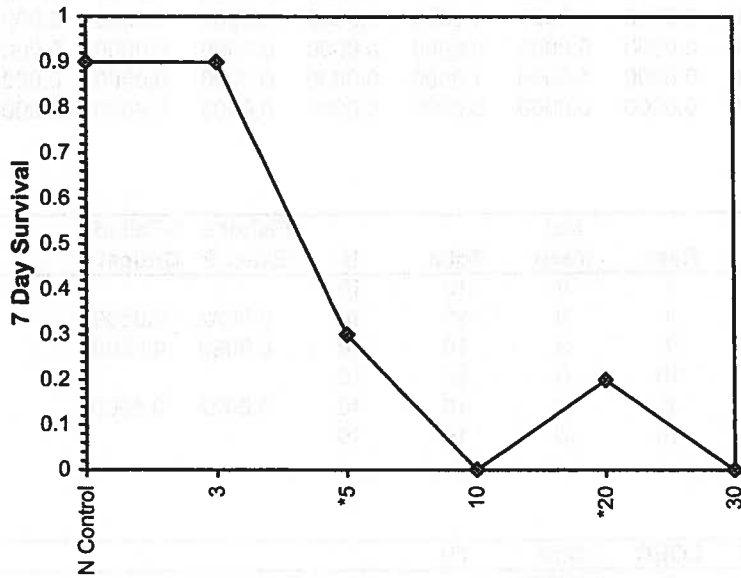
Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	3.1500	0.9687	0.6750	3.3010	-0.7850
IC10	3.3000	0.6263	1.3500	3.6020	-1.9127
IC15	3.4500	0.4710	2.0250	3.9030	-1.7850
IC20	3.6000	0.3748	2.7000	4.3600	-0.5277
IC25	3.7500	0.3750	3.1244	4.7000	0.6546
IC40	4.2000	0.4874	3.6400	5.8350	2.0092
IC50	4.5000	0.6448	4.0000	6.6683	1.9221



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 2/3/2009 Test ID: CER020309 Sample ID: CA0000000
End Date: 2/10/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 2/3/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/3/2009	Test ID: CER020309	Sample ID: CA0000000
End Date: 2/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 2/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	14.000	14.000	9.000	14.000	21.000	27.000	21.000	11.000	19.000	18.000
3	14.000	18.000	17.000	20.000	20.000	25.000	13.000	12.000	19.000	11.000
5	14.000	7.000	0.000	0.000	14.000	17.000	6.000	3.000	3.000	0.000
10	11.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	5.000	7.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-ug/L	Transform: Untransformed							t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N				Mean	N-Mean
N Control	16.800	1.0000	16.800	9.000	27.000	32.214	10				16.850	1.0000
3	16.900	1.0060	16.900	11.000	25.000	25.935	10	-0.048	2.223	4.639	16.850	1.0000
*5	6.400	0.3810	6.400	0.000	17.000	100.778	10	4.985	2.223	4.639	6.400	0.3798
*10	1.100	0.0655	1.100	0.000	11.000	316.228	10	7.525	2.223	4.639	1.150	0.0682
*20	1.200	0.0714	1.200	0.000	7.000	214.447	10	7.477	2.223	4.639	1.150	0.0682
30	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000

Auxiliary Tests

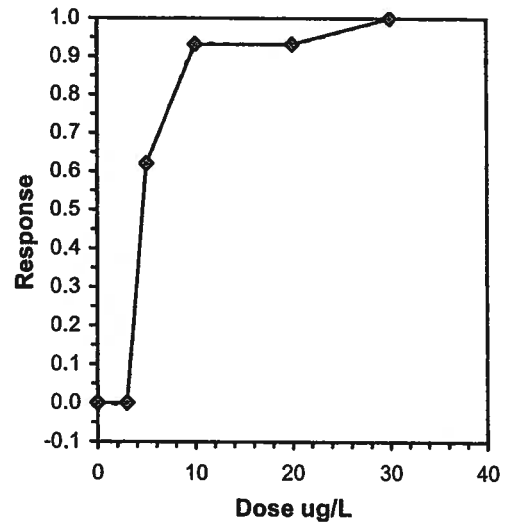
Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.91738	0.93	0.73264
Bartlett's Test indicates equal variances (p = 0.08)	8.2461	13.2767	

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	3	5	3.87298		4.63867	0.27611	629.77	21.7644	6.2E-12	4, 45

Treatments vs N Control

Linear Interpolation (200 Resamples)

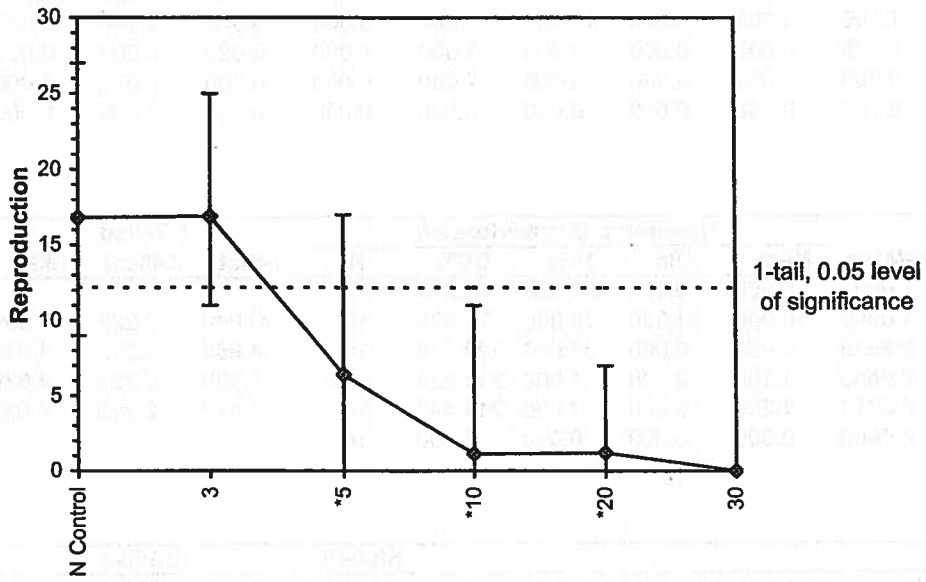
Point	ug/L	SD	95% CL	Skew
IC05	3.1612	0.8915	0.7616	3.2326
IC10	3.3225	0.5498	1.5233	3.4934
IC15	3.4837	0.3381	2.2849	3.7403
IC20	3.6450	0.2535	3.0151	4.0052
IC25	3.8062	0.2710	3.2387	4.2716
IC40	4.2900	0.3696	3.7558	5.1712
IC50	4.6124	0.5242	4.0925	6.1928



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/3/2009 Test ID: CER020309 Sample ID: CA0000000
End Date: 2/10/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 2/3/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 2/3/2009	Test ID: CER020309	Sample ID: CA0000000
End Date: 2/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 2/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.45	24.00	25.10	0.51	2.93	8
3		24.23	24.00	25.80	0.64	3.29	8
5		24.19	24.00	25.50	0.53	3.01	8
10		24.19	24.00	25.50	0.53	3.01	8
20		24.19	24.00	25.50	0.53	3.01	8
30		24.00	24.00	24.00	0.00	0.00	4
N Control		pH	7.93	7.90	8.00	0.05	2.71
3	7.61		7.40	8.00	0.20	5.92	8
5	7.55		7.40	7.90	0.18	5.58	8
10	7.55		7.40	7.90	0.18	5.58	8
20	7.53		7.30	7.80	0.17	5.43	8
30	7.40		7.30	7.50	0.08	3.86	4
N Control	DO mg/L		7.38	6.80	8.00	0.42	8.75
3		7.15	6.40	8.00	0.47	9.55	8
5		7.20	6.40	8.20	0.57	10.52	8
10		7.29	6.70	8.40	0.55	10.17	8
20		7.34	6.70	8.20	0.51	9.70	8
30		7.38	6.70	7.90	0.50	9.58	4
N Control		Hardness mg/L	85.38	82.00	88.00	2.33	1.79
3	0.00		0.00	0.00	0.00		0
5	0.00		0.00	0.00	0.00		0
10	0.00		0.00	0.00	0.00		0
20	0.00		0.00	0.00	0.00		0
30	95.00		95.00	95.00	0.00	0.00	4
N Control	Cond umhos		360.63	349.00	378.00	10.56	0.90
3		339.75	323.00	355.00	10.48	0.95	8
5		333.75	323.00	348.00	8.24	0.86	8
10		331.63	321.00	335.00	4.66	0.65	8
20		324.13	312.00	335.00	7.92	0.87	8
30		326.00	318.00	333.00	6.78	0.80	4
N Control		Alkalinity mg/L	60.75	60.00	63.00	1.39	1.94
3	0.00		0.00	0.00	0.00		0
5	0.00		0.00	0.00	0.00		0
10	0.00		0.00	0.00	0.00		0
20	0.00		0.00	0.00	0.00		0
30	58.00		58.00	58.00	0.00	0.00	4



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
March 26, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

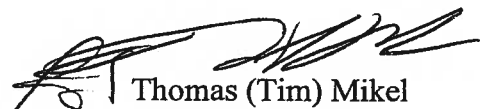
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	17 March - 09
ABC LAB. NO.:	VIC0309.217

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	<100.00 %
	TU _c =	>1.00
	LC25 =	88.72 %
	LC50 =	>100.00 %

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 3/17/2009	Test ID: VIC0309217	Sample ID: CA0000000
End Date: 3/24/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 3/16/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
100	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not		Total	N	Fisher's 1-Tailed		Isotonic	
				Resp	Total			Exact P	Critical	Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10	10			0.8000	1.0000
100	0.8000	1.0000	2	8	10	10	10	0.7090	0.0500	0.8000	1.0000

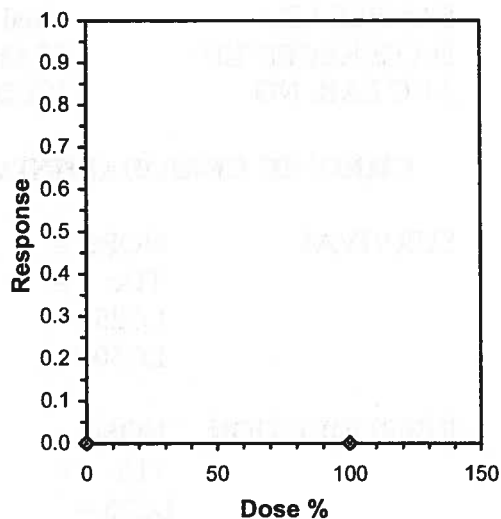
Hypothesis Test (1-tail, 0.05) NOEC LOEC ChV TU

Fisher's Exact Test 100 >100 1

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 3/17/2009

Test ID: VIC0309217

Sample ID: CA0000000

End Date: 3/24/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

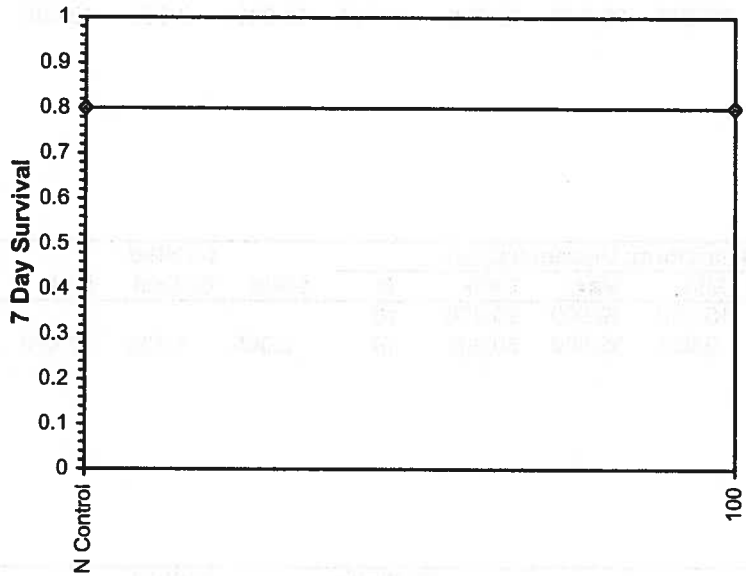
Sample Date: 3/16/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/17/2009	Test ID: VIC0309217	Sample ID: CA0000000
End Date: 3/24/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 3/16/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	18.000	33.000	33.000	34.000	30.000	31.000	39.000	15.000	31.000	27.000
100	0.000	30.000	20.000	23.000	25.000	35.000	21.000	31.000	9.000	15.000

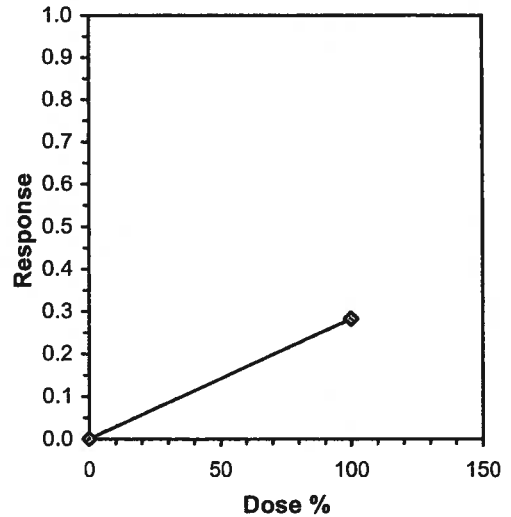
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	29.100	1.0000	29.100	15.000	39.000	25.276	10				29.100	1.0000	
*100	20.900	0.7182	20.900	0.000	35.000	50.909	10	2.005	1.730	7.076	20.900	0.7182	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93878	0.868	-0.772	0.30863						
F-Test indicates equal variances (p = 0.29)	2.09263	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			7.07634	0.24317	336.2	83.6556	0.06027	1, 18
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	17.744			
IC10*	35.488			
IC15*	53.232			
IC20*	70.976			
IC25*	88.720			
IC40	>100			
IC50	>100			

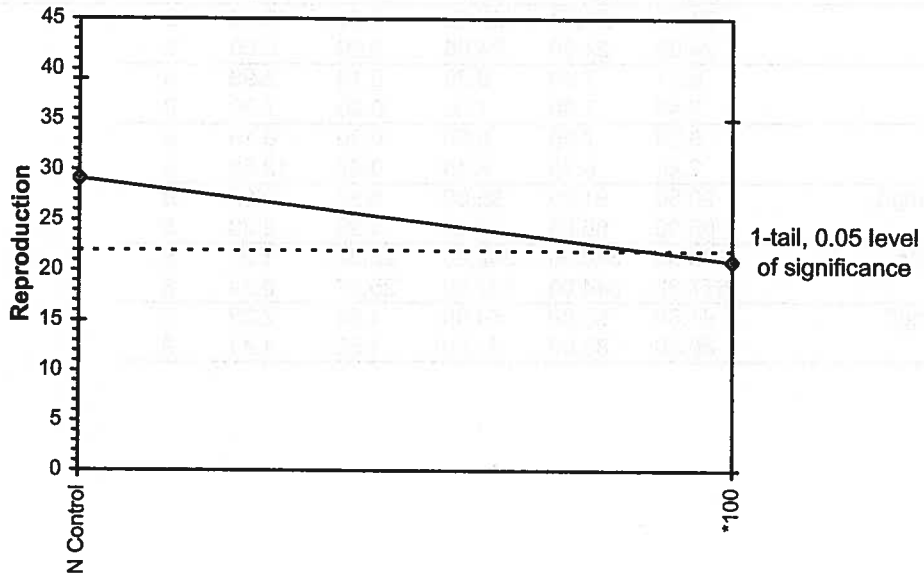
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/17/2009	Test ID: VIC0309217	Sample ID: CA0000000
End Date: 3/24/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 3/16/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/17/2009	Test ID: VIC0309217	Sample ID: CA0000000
End Date: 3/24/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 3/16/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.50	24.00	25.50	0.69	3.40	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	8.01	7.90	8.20	0.10	3.93	8
100		7.44	7.00	7.80	0.30	7.39	8
N Control	DO mg/L	8.26	7.90	8.60	0.26	6.19	8
100		7.45	6.20	8.40	0.87	12.50	8
N Control	Hardness mg/L	90.50	81.00	95.00	5.88	2.68	8
100		69.00	66.00	77.00	4.96	3.23	8
N Control	Cond-umhos	360.88	340.00	392.00	22.37	1.31	8
100		677.63	644.00	722.00	25.37	0.74	8
N Control	Alkalinity mg/L	61.00	60.00	64.00	1.85	2.23	8
100		89.50	88.00	91.00	1.60	1.41	8



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: NPDES Bioassay Samples - Accelerated Monitoring				Laboratory Analyses Requested			Sample Preservation Methods	Sample Matrix (WW, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216									# Sample Containers
Sampler Name: <i>Gina Cloutier</i>							Chronic Carcinogens	Refrigeration	
Sampler Signature: <i>Gina Cloutier</i>									Composite
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab					
50603	Final Effluent to Mojave River Grab	3/16/09	0830	X	X		1	X	WW

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Date/Time:
<i>Gina Cloutier</i>	3-17-09 AM	<i>[Signature]</i>	
Print: <i>Gina Cloutier</i>		Print: <i>E. MATHURAN</i>	
Company: <i>VVWRA</i>		Company: <i>AQUATIC BIOASSAY</i>	
Relinquished By (Sign):	Date/Time:	Relinquished By (Sign):	Date/Time:
Print: _____		Print: _____	
Company: _____		Company: _____	

Sample Condition Upon Receipt by Laboratory:	Laboratory Notes
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples Received Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temperature: <u>4.4</u> °C	<i>WARMER = 100</i>

Received By (Sign):	Date/Time:
Print: _____	
Company: _____	
Received By (Sign):	Date/Time:
Print: _____	
Company: _____	

Samples sent via Fed Ex to:
 Aquatic Bioassay and Consulting Laboratories
 Lab #



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

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 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: NPDES Bioassay Samples – Accelerated Monitoring			Sample Type			Laboratory Analyses Requested					Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)		
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Composite			Chronic Ceriodaphnia					Refrigeration			WW	
Sampler Name: <i>Gina Cloutier</i>	Sample Date: <i>3/18/09</i>	Sample Time: <i>0845</i>	Sample Location/Description: <i>Final Effluent to Mojave River Grab</i>	Grab	X										
Sampler Signature: <i>Gina Cloutier</i>	Temp: <i>12.2°C</i>		Received By (Sign): <i>[Signature]</i>		Date/Time: <i>3/19/09</i>		Reinquired By (Sign):		Date/Time:		Received By (Sign):				
VVWRA ID # <i>5082</i>			Print: <i>Princess K-Christie</i>				Print: _____				Print: _____				
			Company: <i>Aquatic Bioassay</i>				Company: _____				Company: _____				
			Received By (Sign):		Date/Time:		Reinquired By (Sign):		Date/Time:		Received By (Sign):				
			Print: _____				Print: _____				Print: _____				
			Company: _____				Company: _____				Company: _____				
Sample Condition Upon Receipt by Laboratory:			Laboratory Notes										Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #		
Samples Received on Ice? Yes No			Temperature _____ °C												
Samples Received Intact? Yes No															



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwra.com E-mail: gcloutier@vwvra.com

Project Name: NPDES Bioassay Samples -- Accelerated Monitoring		Sample Type		Laboratory Analyses Requested								Sample Preservation Methods		Sample Matrix															
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic Ceriodaphnia											Refrigeration	# Sample Containers	Date/Time	Received By (Sign)	Date/Time	Relinquished By (Sign)	Date/Time	Received By (Sign)	Date/Time	Relinquished By (Sign)	Date/Time	Received By (Sign)			
Sampler Name: Gina Cloutier		Grab																									Sample Date		Sample Time
VVWRA ID #	5103	Final Effluent to Mojave River Grab	3/20/09 1045	X	X											1	3/21/09	<i>[Signature]</i>	10.8°C									ind. health p.	
Sampler Signature: <i>[Signature]</i>		Sample Date		Sample Time		Sample Location/Description		Composite		Chronic Ceriodaphnia		Sample Preservation Methods		Sample Matrix		# Sample Containers		Date/Time		Received By (Sign)		Date/Time		Relinquished By (Sign)		Date/Time		Received By (Sign)	
Print: Gina Cloutier Company: VVWRA		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____	

Sample Condition Upon Receipt by Laboratory:
 Samples Received on Ice? Yes No
 Samples Received Intact? Yes No
 Temperature _____ °C



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 3 March - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

IC25 = 9.17 ug/l

IC50 = 12.86 ug/l

ENDPOINT: REPRODUCTION

NOEC = 5.00 ug/l

IC25 = 7.99 ug/l

IC50 = 11.41 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 3/3/2009	Test ID: CER030309	Sample ID: CA000000
End Date: 3/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 3/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	0.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

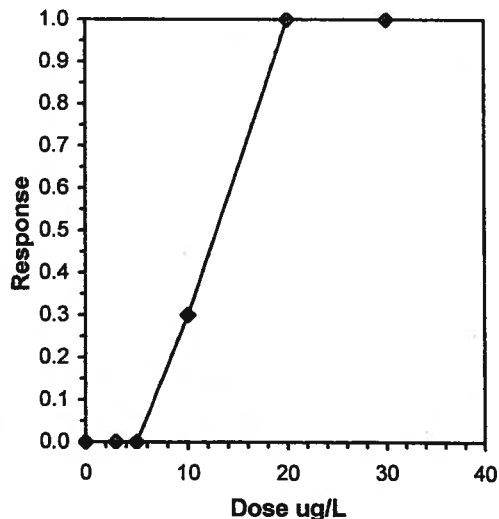
Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
3	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000
5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000
10	0.7000	0.7000	3	7	10	10	0.1053	0.0500	0.7000	0.7000
20	0.0000	0.0000	10	0	10	10			0.0000	0.0000
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000

Hypothesis Test (1-tail, 0.05)

	NOEC	LOEC	ChV	TU
Fisher's Exact Test	10	20	14.1421	
Treatments vs N Control				

Linear Interpolation (200 Resamples)

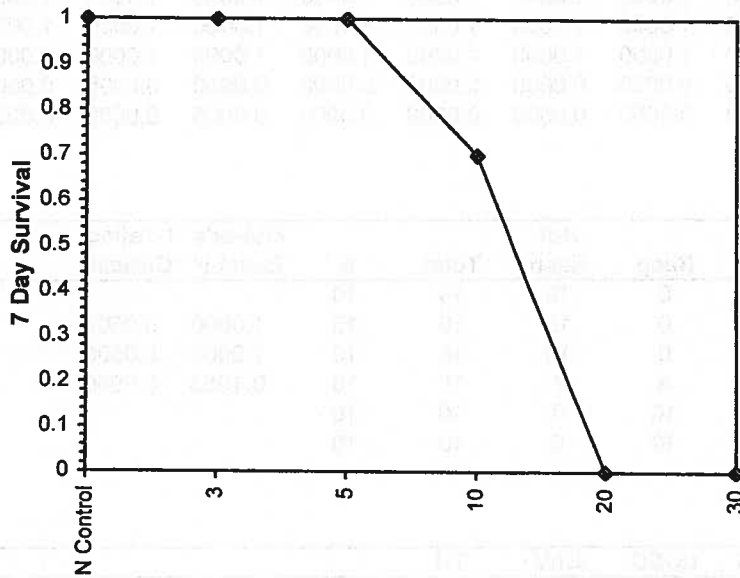
Point	ug/L	SD	95% CL		Skew
IC05	5.833	0.848	5.417	7.500	3.2168
IC10	6.667	1.263	5.833	10.000	1.6776
IC15	7.500	1.317	6.250	10.556	1.0182
IC20	8.333	1.425	6.667	11.111	0.5041
IC25	9.167	1.430	7.083	11.667	0.2699
IC40	11.429	1.504	8.333	13.333	-0.3087
IC50	12.857	1.534	9.167	14.444	-0.7220



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 3/3/2009 Test ID: CER030309 Sample ID: CA0000000
End Date: 3/10/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 3/3/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/3/2009	Test ID: CER030309	Sample ID: CA000000
End Date: 3/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 3/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	18.000	18.000	17.000	18.000	20.000	17.000	16.000	17.000	19.000	15.000
3	22.000	15.000	14.000	12.000	14.000	17.000	15.000	17.000	12.000	14.000
5	16.000	17.000	13.000	16.000	16.000	19.000	28.000	21.000	28.000	25.000
10	0.000	22.000	0.000	7.000	15.000	11.000	22.000	14.000	8.000	3.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-ug/L	Mean	N-Mean	Transform: Untransformed					N	1-Tailed			Isotonic	
			Mean	Min	Max	CV%	t-Stat		Critical	MSD	Mean	N-Mean	
N Control	17.500	1.0000	17.500	15.000	20.000	8.193	10				17.533	1.0000	
3	15.200	0.8686	15.200	12.000	22.000	19.318	10	1.002	2.137	4.905	17.533	1.0000	
5	19.900	1.1371	19.900	13.000	28.000	27.056	10	-1.045	2.137	4.905	17.533	1.0000	
*10	10.200	0.5829	10.200	0.000	22.000	79.486	10	3.180	2.137	4.905	10.200	0.5817	
20	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000	
30	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000	

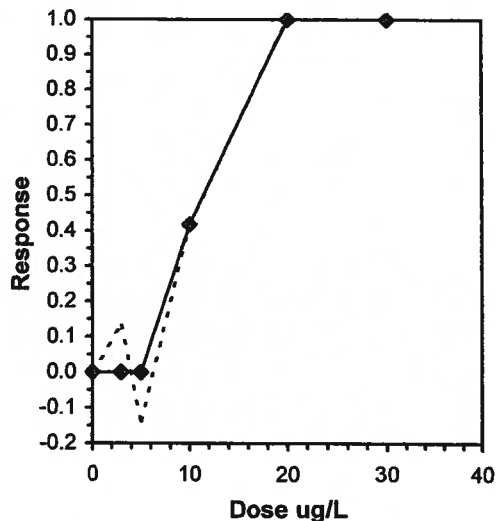
Auxiliary Tests

Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	Statistic	Critical	Skew	Kurt
Bartlett's Test indicates unequal variances ($p = 4.30E-05$)	22.8675	11.3449	0.41256	0.73641

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	5	10	7.07107		4.90503	0.28029	171.267	26.35	0.00125	3, 36
Treatments vs N Control										

Linear Interpolation (200 Resamples)

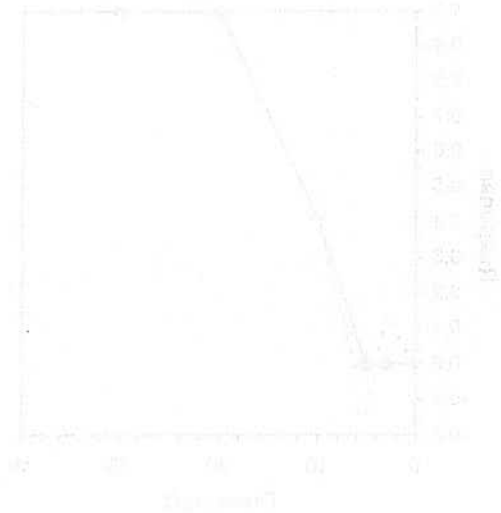
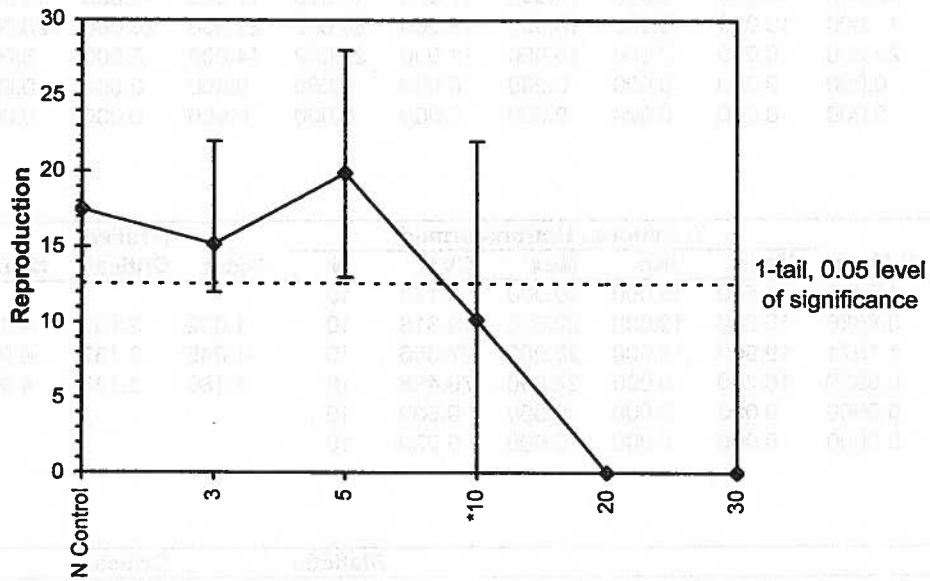
Point	ug/L	SD	95% CL		Skew
IC05	5.598	1.349	1.389	6.282	-1.4334
IC10	6.195	1.013	2.779	7.734	-0.6213
IC15	6.793	1.006	5.628	9.373	1.0279
IC20	7.391	1.108	6.168	10.400	1.4288
IC25	7.989	1.203	6.649	11.000	1.1037
IC40	9.782	1.413	7.808	12.800	0.4960
IC50	11.405	1.561	8.574	14.000	0.0359



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/3/2009 Test ID: CER030309 Sample ID: CA0000000
End Date: 3/10/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 3/3/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 3/3/2009	Test ID: CER030309	Sample ID: CA0000000
End Date: 3/10/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 3/3/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Auxillary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.33	24.00	25.40	0.60	3.20	8
3		24.18	24.00	25.40	0.49	2.91	8
5		24.18	24.00	25.40	0.49	2.91	8
10		24.18	24.00	25.40	0.49	2.91	8
20		24.00	24.00	24.00	0.00	0.00	3
30		24.00	24.00	24.00	0.00	0.00	3
N Control	pH	8.00	7.90	8.20	0.09	3.80	8
3		8.04	7.80	8.30	0.15	4.83	8
5		8.01	7.80	8.30	0.16	5.06	8
10		7.95	7.70	8.20	0.17	5.17	8
20		7.90	7.70	8.10	0.20	5.66	3
30		7.87	7.70	8.00	0.15	4.97	3
N Control	DO mg/L	8.28	8.00	8.90	0.30	6.63	8
3		8.15	7.30	8.60	0.40	7.79	8
5		8.36	8.00	8.80	0.33	6.91	8
10		8.53	8.00	9.10	0.45	7.87	8
20		8.63	8.20	8.90	0.38	7.13	3
30		8.63	8.20	9.00	0.40	7.36	3
N Control	Hardness mg/L	84.63	80.00	90.00	3.42	2.19	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		89.00	89.00	89.00	0.00	0.00	3
N Control	Cond umhos	340.75	334.00	349.00	5.04	0.66	8
3		335.88	318.00	368.00	17.76	1.25	8
5		318.13	313.00	328.00	4.88	0.69	8
10		319.75	316.00	329.00	4.20	0.64	8
20		319.50	318.00	321.00	2.12	0.46	2
30		341.00	341.00	341.00	0.00	0.00	3
N Control	Alkalinity mg/L	60.63	60.00	62.00	0.92	1.58	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		52.00	52.00	52.00	0.00	0.00	3



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
May 4, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	21 April - 09
ABC LAB. NO.:	VIC0409.213

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 4/21/2009	Test ID: VIC0409213	Sample ID: CA0000000
End Date: 4/28/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 4/20/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia

Comments: Final Effluent to Mojave River Grab

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

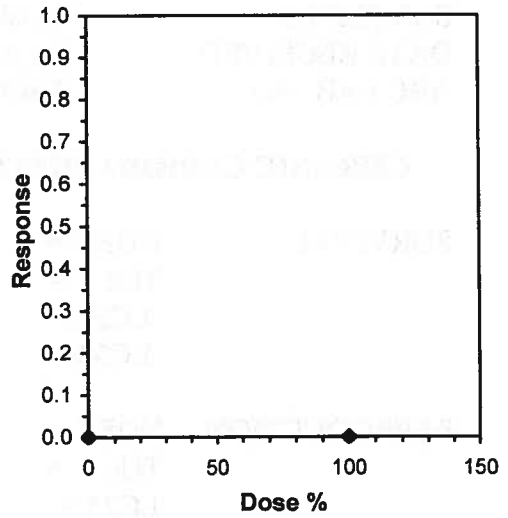
Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1

Treatments vs N Control

Linear Interpolation (200 Resamples)

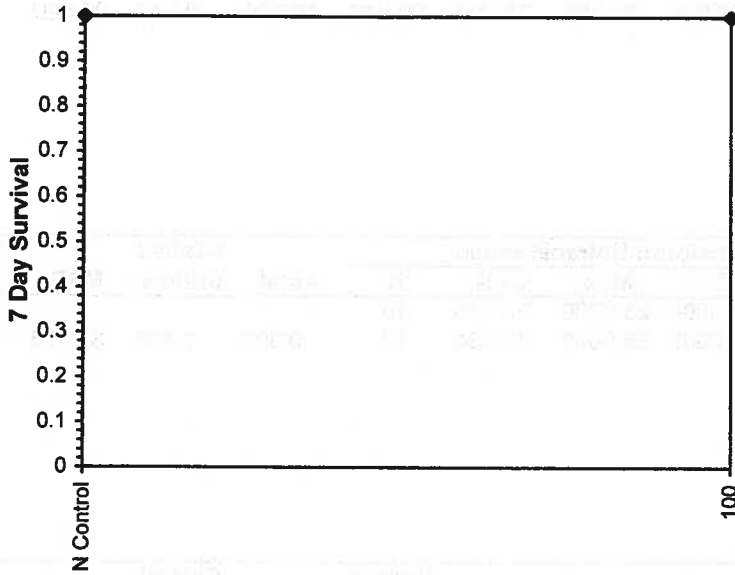
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 4/21/2009 Test ID: VIC0409213 Sample ID: CA000000
End Date: 4/28/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 4/20/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

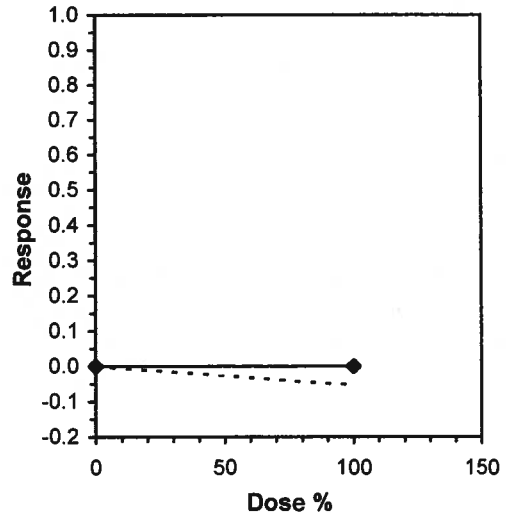
Start Date: 4/21/2009	Test ID: VIC0409213	Sample ID: CA0000000
End Date: 4/28/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 4/20/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	17.000	25.000	25.000	24.000	25.000	24.000	25.000	4.000	19.000	15.000
100	17.000	13.000	26.000	36.000	33.000	25.000	20.000	10.000	9.000	25.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	20.300	1.0000	20.3000	4.0000	25.0000	33.736	10				20.850	1.0000	
100	21.400	1.0542	21.4000	9.0000	36.0000	43.234	10	-0.302	1.730	6.2973	20.850	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.93936	0.868	-0.3771	-0.1641						
F-Test indicates equal variances ($p = 0.38$)	1.82516	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	6.2973	0.31021	6.05	66.25	0.76597	1, 18
Treatments vs N Control										

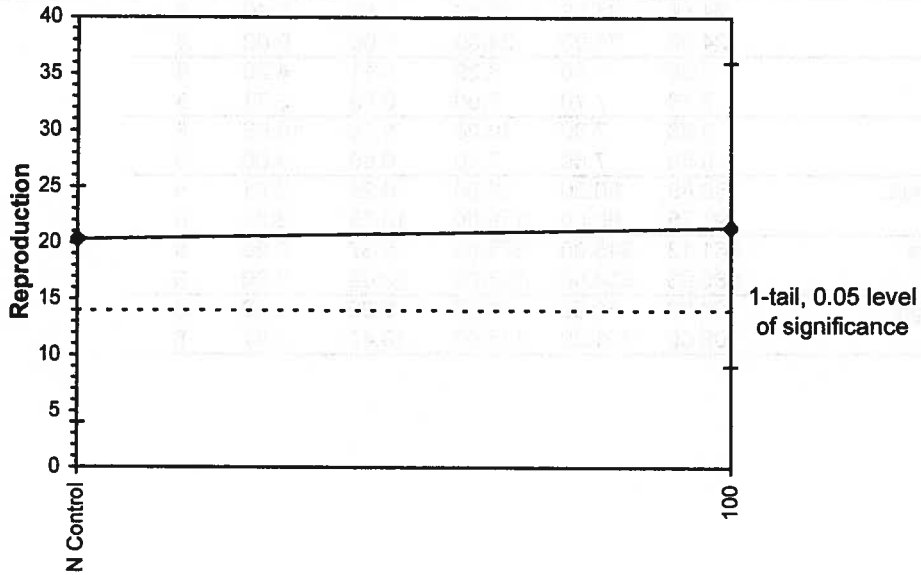
Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 4/21/2009 Test ID: VIC0409213 Sample ID: CA0000000
End Date: 4/28/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 4/20/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 4/21/2009	Test ID: VIC0409213	Sample ID: CA0000000
End Date: 4/28/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 4/20/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.49	24.00	25.60	0.69	3.40	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	7.99	7.90	8.20	0.11	4.20	8
100		7.79	7.70	7.90	0.08	3.71	8
N Control	DO mg/L	8.83	7.80	10.00	0.78	10.02	8
100		8.28	7.60	9.10	0.55	9.00	8
N Control	Hardness mg/L	88.88	80.00	96.00	6.24	2.81	8
100		97.75	90.00	115.00	10.73	3.35	8
N Control	Cond-umhos	361.13	345.00	375.00	9.37	0.85	8
100		680.63	634.00	727.00	29.60	0.80	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
100		109.00	101.00	125.00	10.47	2.97	8



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly Routine NPDES Samples - Accelerated Annual		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (W, DW, GW, SG)
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Acute Fathead Minnow (100%) Chronic Ceriodaphnia				Refrigeration		WW
Sampler Name: Gina Cloutier	Sample Date: 4/20/09	Sample Time: 1030	Grab							
Sampler Signature: <i>Gina Cloutier</i>	Sample Location/Description: Final Effluent to Mojave River Grab		X							
VVWRA ID #: 5404										
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 4/20/09 1045	Received By (Sign): <i>E. MATHIAS</i>		Date/Time:		Relinquished By (Sign):		Date/Time:	Received By (Sign):
Print: Gina Cloutier			Print: E. MATHIAS				Print:			Print:
Company: VVWRA			Company: AQUATIC BIOASSAY				Company:			Company:
Relinquished By (Sign):		Date/Time:	Received By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:	Received By (Sign):
Print:			Print:				Print:			Print:
Company:			Company:				Company:			Company:
Sample Condition Upon Receipt by Laboratory: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Temperature: 12.7 °C			Laboratory Notes			Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #	
Samples Received on Ice? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
Samples Received Intact? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No										

DATE = 4/20/09



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly Routine NPDES Samples - Accelerated Annual		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic Cetodaphnia				Refrigeration		WW
Sampler Name: <i>Gina Cloutier</i>		Grab								
Sampler Signature: <i>Gina Cloutier</i>		Sample Date	Sample Time							
VVWRA ID #	Sample Location/Description									
5423	Final Effluent to Mojave River Grab	4/22/09	1040							
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 4/22/09		Relinquished By (Sign):		Date/Time: 4-23-09		Received By (Sign): <i>E. MATTHEWS</i>		
Print: <i>Gina Cloutier</i>		1040		Print: _____		Print: _____		Print: _____		
Company: <i>VVWRA</i>				Company: _____		Company: _____		Company: _____		
Relinquished By (Sign): _____		Date/Time: _____		Relinquished By (Sign): _____		Date/Time: _____		Received By (Sign): _____		
Print: _____		Temperature		Print: _____		Print: _____		Print: _____		
Company: _____		95 °C		Company: _____		Company: _____		Company: _____		
Sample Condition Upon Receipt by Laboratory:		Samples Received on Ice? Yes No		Laboratory Notes				Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories		Lab #
Samples Received Intact? Yes No		95								

Chronic = 20



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

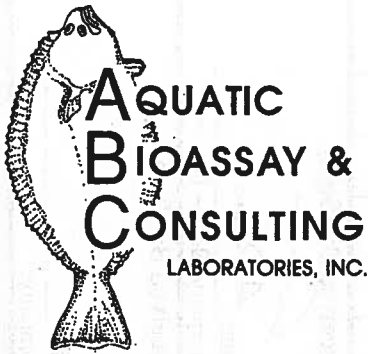
A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly Routine NPDES Samples - Accelerated Annual		Sample Type		Laboratory Analyses Requested			Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic			Refrigeration		WW	
Sampler Name: <i>Gina Cloutier</i>		Grab		Cetodaphnia						
Sampler Signature: <i>Gina Cloutier</i>	Sample Date	Sample Time								
VVWRA ID #	Sample Location/Description									
5442	Final Effluent to Mojave River Grab	4/24/09	1020	X			X			
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 4/24/09		Relinquished By (Sign):			Date/Time: 4-25-09		Received By (Sign): <i>A. Ramos</i>	
Print: <i>Gina Cloutier</i>		1030		Print: _____			1020		Print: _____	
Company: VVWRA				Company: _____					Company: <i>A. Ramos</i>	
Relinquished By (Sign): _____		Date/Time:		Relinquished By (Sign):			Date/Time:		Received By (Sign):	
Print: _____				Print: _____					Print: _____	
Company: _____				Company: _____					Company: _____	
Sample Condition Upon Receipt by Laboratory:				Laboratory Notes						
Samples Received on Ice?		Temperature								
Yes	No	Yes	No							
Samples Received Intact?		6.2 °C		Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #						
Yes	No									

CALVINE ~ 2009



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 7 April - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 20.00 ug/l

IC25 = 7.08 ug/l

IC50 = 9.72 ug/l

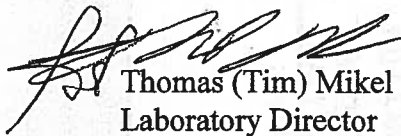
ENDPOINT: REPRODUCTION

NOEC = 5.00 ug/l

IC25 = 3.33 ug/l

IC50 = 7.70 ug/l

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

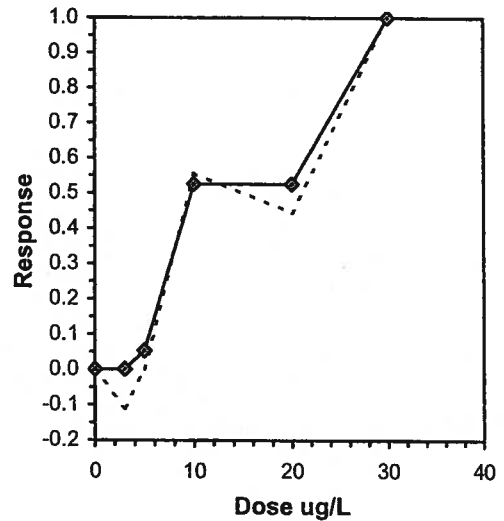
Start Date: 4/7/2009	Test ID: CER040709	Sample ID: CA0000000
End Date: 4/14/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 4/7/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	0.0000	0.0000	1.0000	1.0000
20	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	0.9000	1.0000	0.99484	1	9	10			0.9500	1.0000
3	1.0000	1.1111	1.0472	0	10	10	0.5000	0.0500	0.9500	1.0000
5	0.9000	1.0000	0.99484	1	9	10	0.7632	0.0500	0.9000	0.9474
*10	0.4000	0.4444	0.73304	6	4	10	0.0286	0.0500	0.4500	0.4737
20	0.5000	0.5556	0.7854	5	5	10	0.0704	0.0500	0.4500	0.4737
*30	0.0000	0.0000	0.5236	10	0	10	0.0001	0.0500	0.0000	0.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	20	30	24.4949	
Treatments vs N Control				

Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	4.9000	0.8376	3.3800	5.8130	-0.3588
>10	5.5000	0.9436	3.7600	6.7861	0.9758
IC15	6.0278	1.1276	4.1400	7.7344	1.8159
IC20	6.5556	1.4391	4.5200	9.4917	2.9304
IC25	7.0833	1.9067	4.9000	12.0859	4.2052
IC40	8.6667	4.5940	7.1667	21.2357	1.5153
IC50	9.7222	5.8810	8.2143	22.6964	0.0790



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 4/7/2009

Test ID: CER040709

Sample ID: CA0000000

CA0000000

End Date: 4/14/2009

Lab ID: CAABC

Sample Type: CUCL-Copper chloride

CUCL-Copper chloride

Sample Date: 4/7/2009

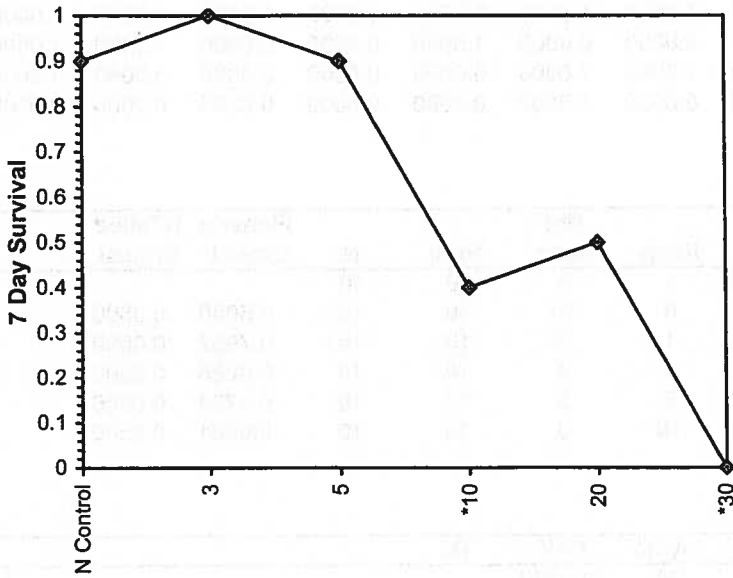
Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

CD-Ceriodaphnia dubia

Comments: Standard Toxicant

Dose-Response Plot





TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:


We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	19 May - 09
ABC LAB. NO.:	VIC0509.293

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

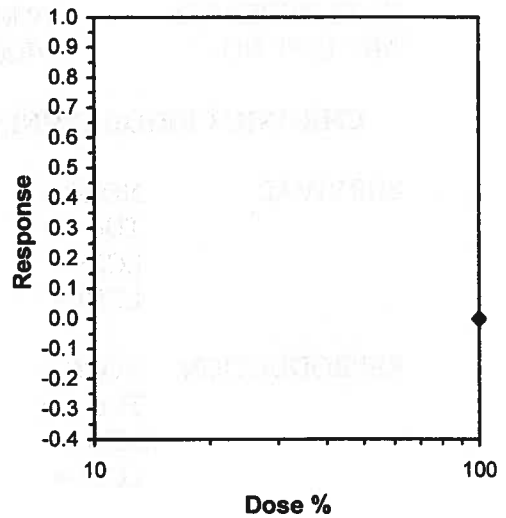
Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.9000	1.0000
100	1.0000	1.2500	0	10	10	10	0.2368	0.0500	0.9000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Log-Logit Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/19/2009

Test ID: VIC0509293

Sample ID: CA0000000

End Date: 5/27/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

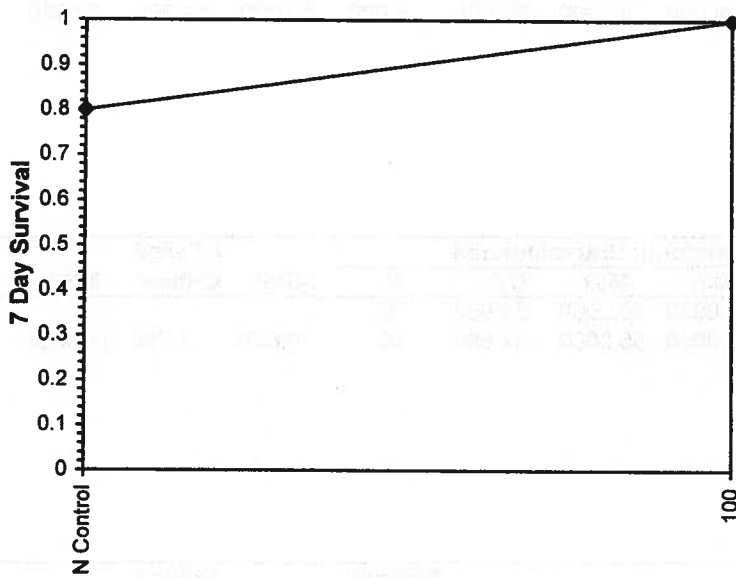
Sample Date: 5/18/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

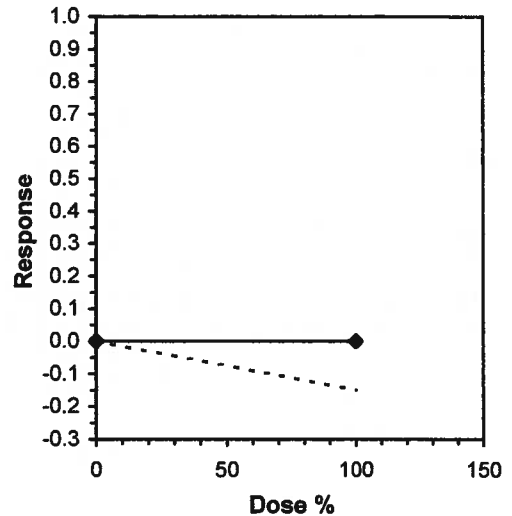
Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	38.000	5.000	41.000	46.000	21.000	27.000	41.000	29.000	0.000	34.000
100	30.000	45.000	24.000	44.000	36.000	55.000	5.000	30.000	23.000	32.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	28.200	1.0000	28.2000	0.0000	46.0000	54.956	10				30.300	1.0000	
100	32.400	1.1489	32.4000	5.0000	55.0000	42.895	10	-0.638	1.730	11.3883	30.300	1.0000	

Auxiliary Tests		Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)		0.93889	0.868	-0.6202	-0.1614						
F-Test indicates equal variances ($p = 0.75$)		1.24344	6.54109								
Hypothesis Test (1-tail, 0.05)		NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test		100	>100		1	11.3883	0.40384	88.2	216.667	0.53149	1, 18

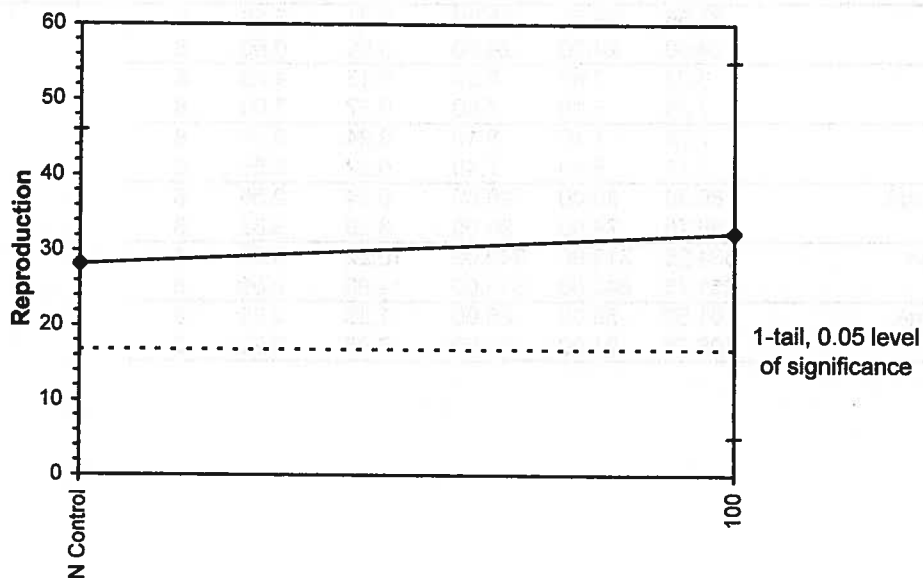
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009 Test ID: VIC0509293 Sample ID: CA000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.55	24.00	25.50	0.61	3.19	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	8.06	7.90	8.20	0.13	4.48	8
100		7.38	7.10	7.80	0.27	7.06	8
N Control	DO mg/L	7.78	7.40	8.10	0.24	6.35	8
100		7.11	6.80	7.40	0.22	6.55	8
N Control	Hardness mg/L	89.38	80.00	99.00	5.24	2.56	8
100		86.75	74.00	93.00	8.29	3.32	8
N Control	Cond-umhos	334.25	319.00	349.00	10.22	0.96	8
100		651.75	640.00	676.00	14.93	0.59	8
N Control	Alkalinity mg/L	61.50	60.00	65.00	1.85	2.21	8
100		103.75	91.00	110.00	7.98	2.72	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

Ms. Gina Cloutier
 Victor Valley WWRA
 15776 Main Street, Suite 3
 Hesperia, CA 92345

Dear Ms. Cloutier:

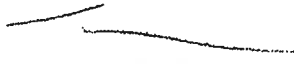
We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT: Victor Valley WRA
 SAMPLE I.D.: Upstream Mojave River
 DATE RECEIVED: 19 May - 09
 ABC LAB. NO.: VIC0509.294

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TUc =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	100.00 %
	TUc =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,


 Thomas (Tim) Mikel
 Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/19/2009	Test ID: VIC0509294	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River Grab		

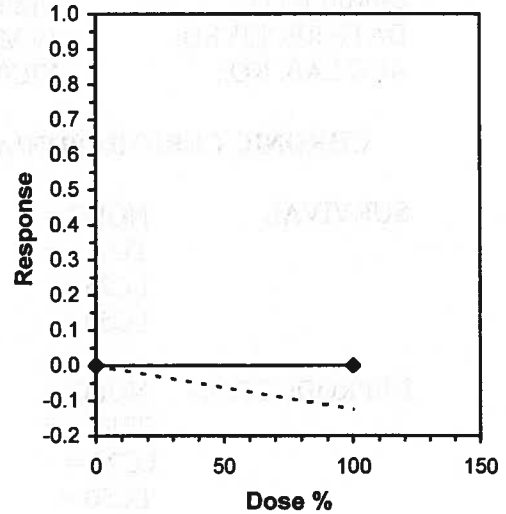
Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
100	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.8500	1.0000
100	0.9000	1.1250	1	9	10	10	0.5000	0.0500	0.8500	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Linear Interpolation (200 Resamples)

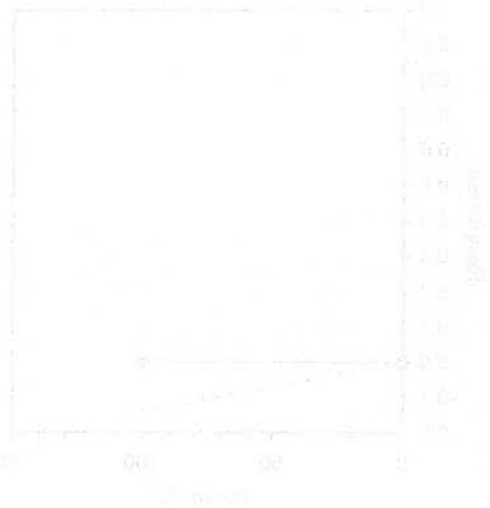
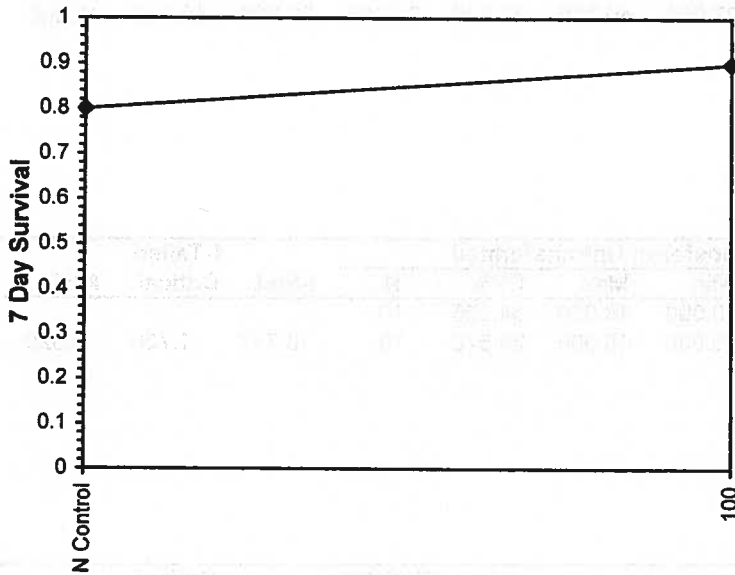
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509294 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

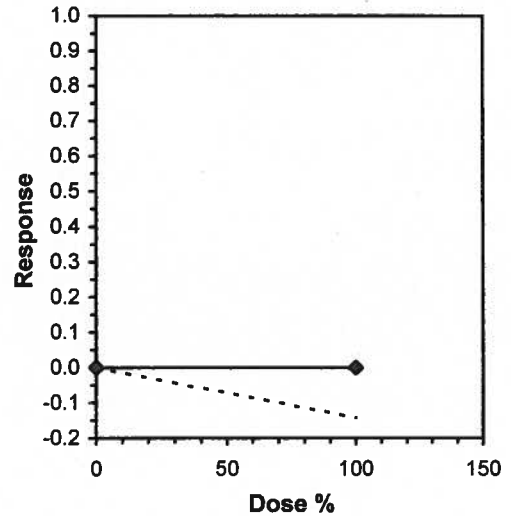
Start Date: 5/19/2009	Test ID: VIC0509294	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	38.000	5.000	41.000	46.000	21.000	27.000	41.000	29.000	0.000	34.000
100	34.000	27.000	38.000	27.000	40.000	32.000	26.000	35.000	18.000	45.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	28.200	1.0000	28.200	0.000	46.000	54.956	10				30.200	1.0000	
100	32.200	1.1418	32.200	18.000	45.000	24.576	10	-0.727	1.730	9.520	30.200	1.0000	

Auxiliary Tests		Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)		0.9401	0.868	-0.8479	0.55012						
F-Test indicates equal variances (p = 0.06)		3.83534	6.54109								
Hypothesis Test (1-tail, 0.05)		NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test		100	>100		1	9.51972	0.33758	80	151.4	0.47663	1, 18
Treatments vs N Control											

Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009	Test ID: VIC0509294	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.56	24.00	25.50	0.60	3.15	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	8.06	7.90	8.20	0.13	4.48	8
100		7.81	7.60	8.10	0.20	5.67	8
N Control	DO mg/L	7.68	7.30	8.10	0.25	6.58	8
100		7.20	6.50	7.70	0.45	9.29	8
N Control	Hardness mg/L	89.38	80.00	99.00	5.24	2.56	8
100		185.25	182.00	195.00	6.02	1.32	8
N Control	Cond-umhos	334.25	319.00	349.00	10.22	0.96	8
100		733.13	716.00	750.00	12.01	0.47	8
N Control	Alkalinity mg/L	61.50	60.00	65.00	1.85	2.21	8
100		208.00	205.00	217.00	5.55	1.13	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:


CLIENT: Victor Valley WRA
SAMPLE I.D.: Downstream Mojave River
DATE RECEIVED: 19 May - 09
ABC LAB. NO.: VIC0509.295

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %
TU_c = 1.00
LC25 = >100.00 %
LC50 = >100.00 %

REPRODUCTION NOEC = 100.00 %
TU_c = 1.00
LC25 = >100.00 %
LC50 = >100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509295 Sample ID: CA0000000
 End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
 Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
 Comments: Downstream Mojave River Grab

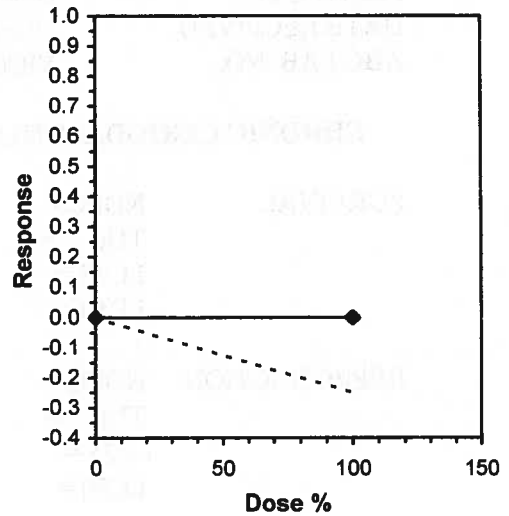
Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.9000	1.0000
100	1.0000	1.2500	0	10	10	10	0.2368	0.0500	0.9000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Linear Interpolation (200 Resamples)

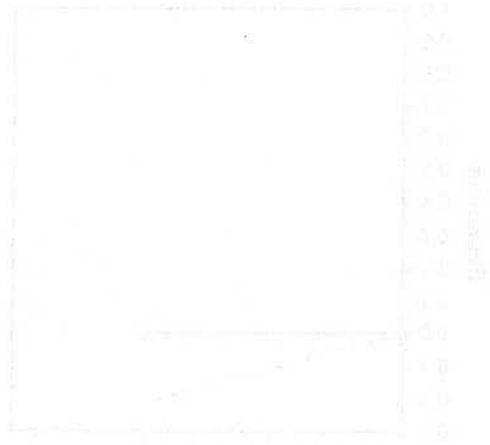
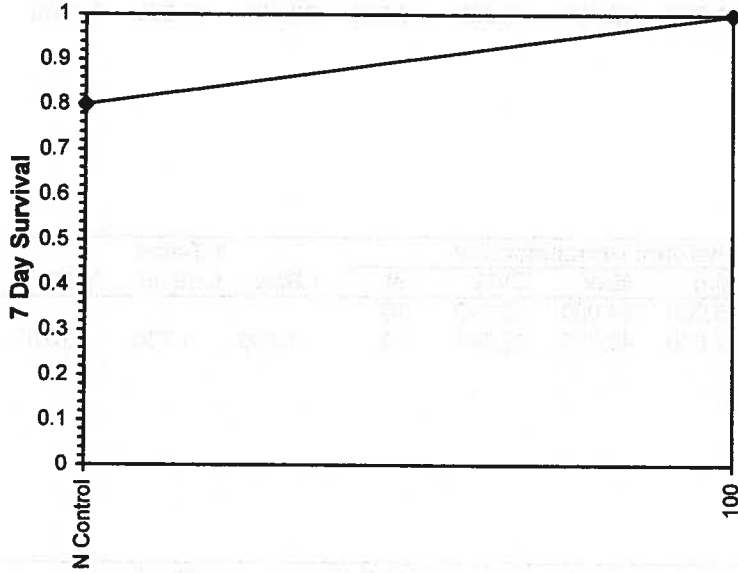
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509295 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River Grab		

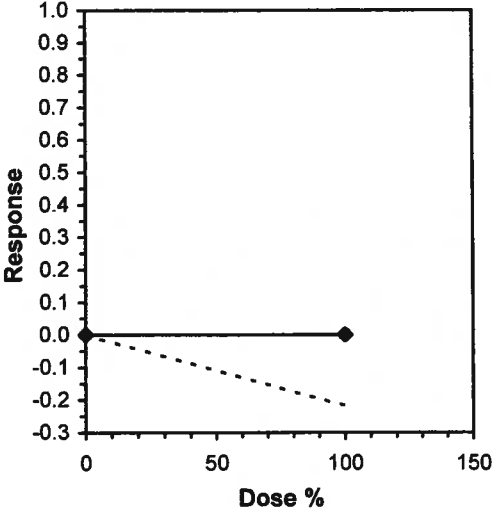
Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	38.000	26.000	16.000	38.000	15.000	44.000	38.000	36.000	26.000	39.000
100	37.000	48.000	41.000	41.000	43.000	43.000	17.000	26.000	45.000	44.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	1-Tailed		Isotonic	
			Mean	Min	Max	CV%	t-Stat		Critical	MSD	Mean	N-Mean
N Control	31.600	1.0000	31.600	15.000	44.000	32.210	10				35.050	1.0000
100	38.500	1.2184	38.500	17.000	48.000	25.041	10	-1.556	1.730	7.670	35.050	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.86044	0.868	-1.0365	-0.047						
F-Test indicates equal variances (p = 0.87)	1.11464	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	7.66967	0.24271	238.05	98.2722	0.13702	1, 18

Treatments vs N Control

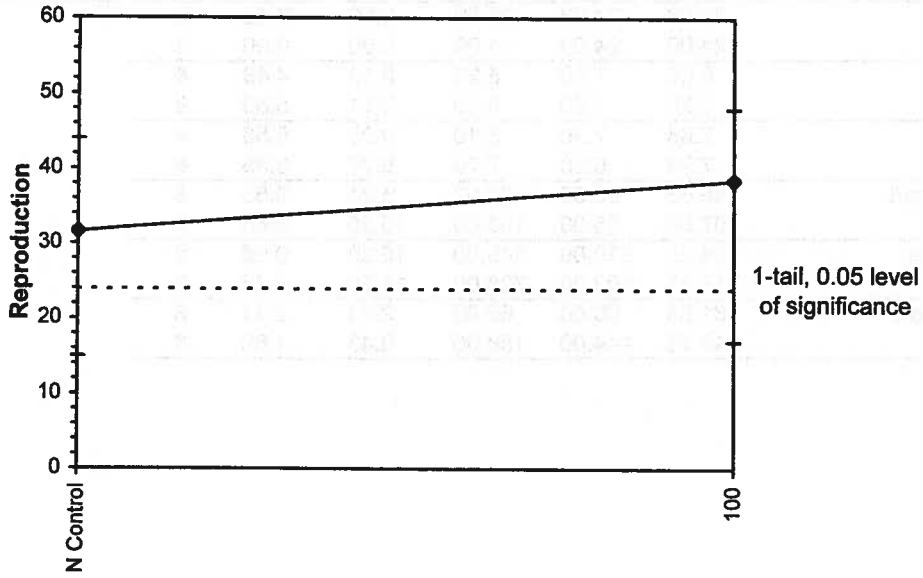
Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009 Test ID: VIC0509295 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.56	24.00	25.50	0.60	3.15	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	8.06	7.90	8.20	0.13	4.48	8
100		7.80	7.60	8.10	0.21	5.83	8
N Control	DO mg/L	7.68	7.30	8.10	0.25	6.58	8
100		7.24	6.60	7.70	0.37	8.36	8
N Control	Hardness mg/L	89.63	80.00	99.00	5.21	2.55	8
100		107.50	95.00	130.00	15.35	3.64	8
N Control	Cond-umhos	334.25	319.00	349.00	10.22	0.96	8
100		717.13	693.00	728.00	11.76	0.48	8
N Control	Alkalinity mg/L	61.88	60.00	65.00	2.23	2.41	8
100		149.75	144.00	158.00	6.43	1.69	8



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Repeat/Accelerated			Sample Type			Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Composite			Chronic 8 day FML	Chronic	Centrophania	Refrigeration			(WW, DW, GW, SG)
Sampler Signature:	Sample Date	Sample Time	Grab	Composite								
Gina Cloutier	5/18/09	0818	X		X	X	X	X	X			WW
	5/18/09	1124	X		X	X	X	X	X			SW
	5/18/09	1045	X		X	X	X	X	X			SW
Relinquished By (Sign):			Received By (Sign):			Relinquished By (Sign):			Received By (Sign):			
Print: <i>Gina Cloutier</i>			Print: _____			Print: _____			Print: <i>E. Matyusina</i>			
Company: VVWRA			Company: _____			Company: _____			Company: Aquatic Bioassay			
Date/Time: 5/18/09 1148			Date/Time: 5-19-09 1035			Date/Time: _____			Date/Time: _____			
Relinquished By (Sign):			Received By (Sign):			Relinquished By (Sign):			Received By (Sign):			
Print: _____			Print: _____			Print: _____			Print: _____			
Company: _____			Company: _____			Company: _____			Company: _____			
Sample Condition Upon Receipt by Laboratory:			Temperature			Laboratory Notes			Samples sent via Fed Ex to:			
Samples Received on Ice? Yes No			10.4 °C			_____			Aquatic Bioassay and Consulting Laboratories			
Samples Received Intact? Yes No			_____			_____			Lab #			

ATTACHED = 10.1



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Repeat/Accelerated		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Grab		Chronic 8 day FML (100%)	Chronic	Ceriodaphnia	Refrigeration			
Sampler Name: <u>Gina Cloutier</u>		Composite								
Sampler Signature: <u><i>Gina Cloutier</i></u>										
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Chronic 8 day FML (100%)	Chronic	Ceriodaphnia				
5713	Final Effluent to Mojave River Grab	5/20/09	0925	X	X		X			WW
5714	Upstream Mojave River	5/20/09	0950	X	X		X			SW
5715	Downstream Mojave River	5/20/09	0910	X	X		X			SW
Relinquished By (Sign): <u><i>Gina Cloutier</i></u>		Date/Time: 5/20/09		Relinquished By (Sign):		Date/Time:		Received By (Sign):		
Print: <u>Gina Cloutier</u>		Company: <u>VVWRA</u>		Print: _____		Company: _____		Print: _____		Company: _____
Relinquished By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):		
Print: _____		Company: _____		Print: _____		Company: _____		Print: _____		Company: _____
Relinquished By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:		Received By (Sign):		
Print: _____		Company: _____		Print: _____		Company: _____		Print: <u>E. MATTHEW</u>		Company: <u>ANALYTIC PHARMACY</u>
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes		Date/Time:		Received By (Sign):		
Samples Received on Ice? <u>Yes</u> <u>No</u>		8.5 °C		Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories		5-21-09		Print: _____		Company: _____
Samples Received Intact? <u>Yes</u> <u>No</u>						WWS		Print: _____		Company: _____
								Print: _____		Company: _____

WVWRA 2010



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Repeat/Accelerated		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Grab	Composite	Chronic 8 day FML	Chronic Ceriodaphnia	Temperature °C	# Sample Containers	Refrigeration			
Sampler ID #	Sampler Signature	Sample Date	Sample Time	Sample Location/Description	Received By (Sign):	Date/Time:	Relinquished By (Sign):	Date/Time:	Received By (Sign):		
5734	<i>Gina Cloutier</i>	5/22/09	1020	Final Effluent to Mojave River Grab	<i>[Signature]</i>	5/22/09 1027	<i>[Signature]</i>	12.401	1	WW	
5735	<i>Gina Cloutier</i>	5/22/09	1000	Upstream Mojave River	<i>[Signature]</i>	5/22/09 1027	<i>[Signature]</i>	9.741	1	SW	
5736	<i>Gina Cloutier</i>	5/22/09	0915	Downstream Mojave River	<i>[Signature]</i>	5/22/09 0915	<i>[Signature]</i>	11.2401	1	SW	
Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 5/22/09 1027		Received By (Sign): <i>[Signature]</i>		Date/Time: 5/23/09 5123109		Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 5/23/09 5123109	
Print: <i>Gina Cloutier</i>		Company: VVWWRA		Print: <i>[Signature]</i>		Company: Aquatic Bioassay and Consulting Laboratories		Print: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 5/22/09 1027		Received By (Sign): <i>[Signature]</i>		Date/Time: 5/23/09 5123109		Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 5/23/09 5123109	
Print: <i>[Signature]</i>		Company: <i>[Signature]</i>		Print: <i>[Signature]</i>		Company: <i>[Signature]</i>		Print: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Sample Condition Upon Receipt by Laboratory:				Laboratory Notes				Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #			
Samples Received on Ice? Yes No				Temperature °C							
Samples Received Intact? Yes No											



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 1 May - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

IC25 = 10.83 ug/l

IC50 = 15.00 ug/l

ENDPOINT: REPRODUCTION

NOEC = 5.00 ug/l

IC25 = 6.26 ug/l

IC50 = 11.25 ug/l

Yours very truly,

Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

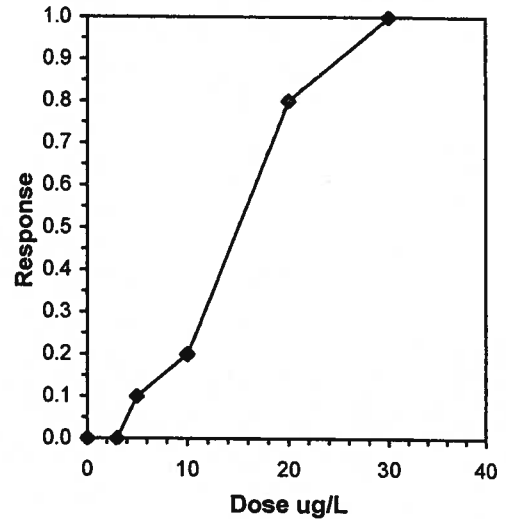
Start Date: 5/1/2009	Test ID: CER050109	Sample ID: CA0000000
End Date: 5/8/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/1/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	1.0000	1.0000	0.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
3	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000
5	0.9000	0.9000	1	9	10	10	0.5000	0.0500	0.9000	0.9000
10	0.8000	0.8000	2	8	10	10	0.2368	0.0500	0.8000	0.8000
*20	0.2000	0.2000	8	2	10	10	0.0004	0.0500	0.2000	0.2000
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	10	20	14.1421	
Treatments vs N Control				

Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	4.000	1.951	3.333	10.714	1.4154
IC10	5.000	2.477	3.667	11.429	0.5389
IC15	7.500	2.494	4.000	12.143	0.1054
IC20	10.000	2.387	4.333	12.857	-0.4503
IC25	10.833	2.219	4.667	13.571	-0.5371
IC40	13.333	2.049	8.750	16.667	0.0211
IC50	15.000	2.129	10.000	20.000	0.4006



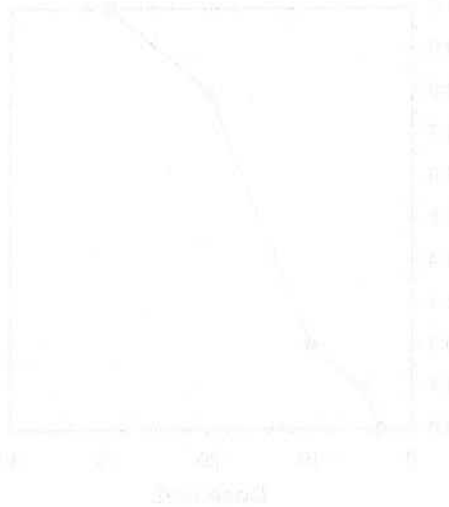
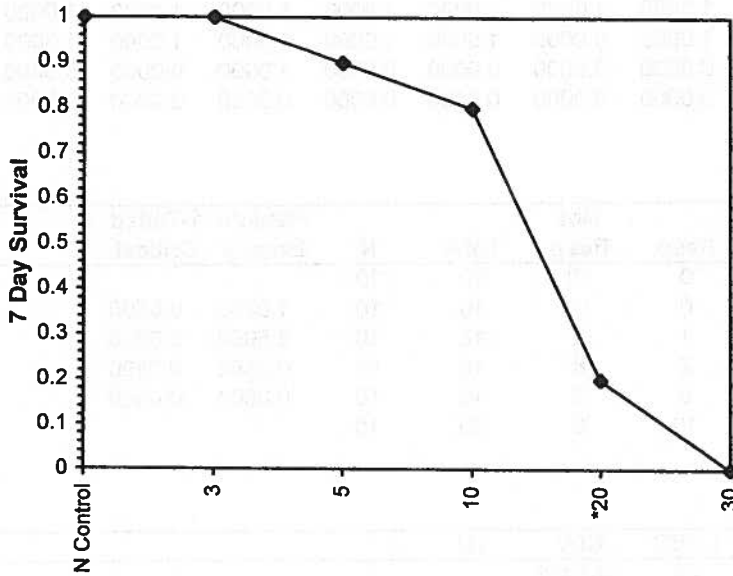
Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 5/1/2009
End Date: 5/8/2009
Sample Date: 5/1/2009
Comments: Standard Toxicant

Test ID: CER050109
Lab ID: CAABC
Protocol: EPA-821-R-02-013

Sample ID: CA0000000
Sample Type: CUCL-Copper chloride
Test Species: CD-Ceriodaphnia dubia

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/1/2009	Test ID: CER050109	Sample ID: CA0000000
End Date: 5/8/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/1/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	30.000	27.000	23.000	33.000	37.000	39.000	35.000	37.000	40.000	21.000
3	31.000	38.000	38.000	32.000	38.000	48.000	35.000	22.000	30.000	31.000
5	51.000	27.000	0.000	23.000	28.000	27.000	32.000	30.000	27.000	27.000
10	33.000	1.000	17.000	18.000	2.000	36.000	20.000	14.000	25.000	16.000
20	3.000	7.000	8.000	1.000	1.000	8.000	0.000	12.000	13.000	3.000
30	11.000	2.000	0.000	0.000	0.000	0.000	5.000	0.000	0.000	0.000

Conc-ug/L	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	32.200	1.0000	32.200	21.000	40.000	20.797	10				33.250	1.0000	
3	34.300	1.0652	34.300	22.000	48.000	20.060	10	-0.570	2.287	8.427	33.250	1.0000	
5	27.200	0.8447	27.200	0.000	51.000	45.121	10	1.357	2.287	8.427	27.200	0.8180	
*10	18.200	0.5652	18.200	1.000	36.000	62.583	10	3.799	2.287	8.427	18.200	0.5474	
*20	5.600	0.1739	5.600	0.000	13.000	83.418	10	7.218	2.287	8.427	5.600	0.1684	
*30	1.800	0.0559	1.800	0.000	11.000	200.821	10	8.249	2.287	8.427	1.800	0.0541	

Auxiliary Tests

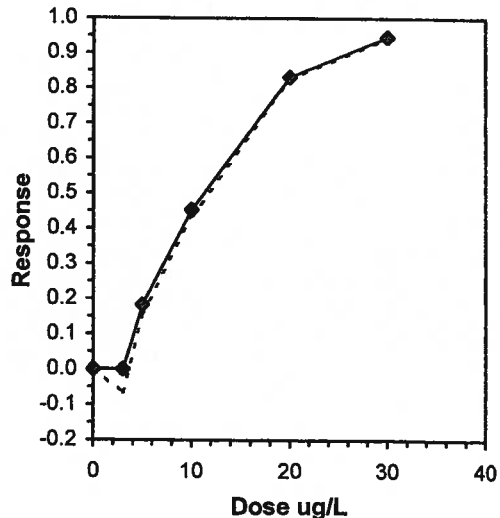
Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.14899	1.035	-0.2272
Bartlett's Test indicates unequal variances (p = 2.65E-03)	18.2449	15.0863	

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	5	10	7.07107		8.42695	0.26171	1893.86	67.9056	7.7E-14	5, 54

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	ug/L	SD	95% CL		Skew
IC05	3.550	0.807	2.109	5.608	0.6253
IC10	4.099	0.914	3.302	6.451	0.8252
IC15	4.649	1.085	3.657	7.322	0.7805
IC20	5.333	1.299	3.920	8.431	0.6713
IC25	6.257	1.547	4.170	10.284	0.5352
IC40	9.028	1.813	4.990	12.669	0.0212
IC50	11.250	1.853	8.036	14.324	0.0244



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/1/2009

Test ID: CER050109

Sample ID: CA0000000

End Date: 5/8/2009

Lab ID: CAABC

Sample Type: CUCL-Copper chloride

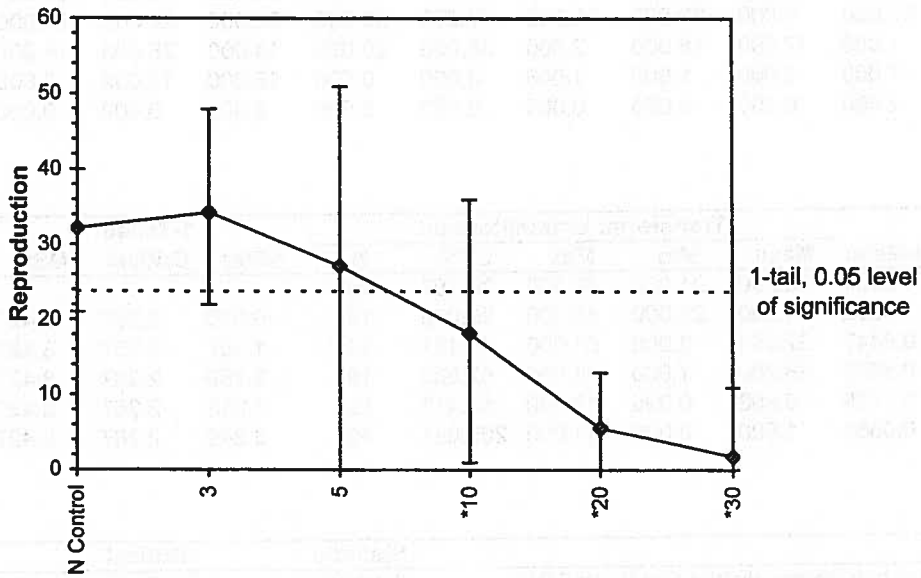
Sample Date: 5/1/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 5/1/2009	Test ID: CER050109	Sample ID: CA0000000
End Date: 5/8/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/1/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.53	24.00	25.60	0.61	3.19	8
3		24.00	24.00	24.00	0.00	0.00	8
5		24.00	24.00	24.00	0.00	0.00	8
10		24.00	24.00	24.00	0.00	0.00	8
20		24.00	24.00	24.00	0.00	0.00	8
30		24.00	24.00	24.00	0.00	0.00	6
N Control	pH	8.03	7.90	8.20	0.13	4.46	8
3		8.20	8.00	8.50	0.18	5.13	8
5		8.23	8.10	8.50	0.15	4.69	8
10		8.19	8.00	8.40	0.16	4.95	8
20		8.19	8.00	8.40	0.20	5.50	8
30		8.25	8.00	8.40	0.20	5.39	6
N Control	DO mg/L	8.56	7.20	9.70	0.84	10.73	8
3		8.56	8.00	9.50	0.57	8.84	8
5		8.81	7.90	9.90	0.84	10.38	8
10		8.99	8.00	10.30	0.93	10.74	8
20		9.14	8.20	10.40	0.88	10.25	8
30		9.37	8.20	10.40	0.94	10.32	6
N Control	Hardness mg/L	91.13	86.00	95.00	3.80	2.14	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		77.00	77.00	77.00	0.00	0.00	6
N Control	Cond umhos	375.38	367.00	388.00	7.89	0.75	8
3		391.75	375.00	422.00	18.34	1.09	8
5		338.75	328.00	350.00	7.98	0.83	8
10		339.00	327.00	356.00	8.55	0.86	8
20		340.00	327.00	359.00	9.67	0.91	8
30		334.67	320.00	348.00	9.58	0.93	6
N Control	Alkalinity mg/L	61.75	60.00	65.00	2.43	2.53	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		55.00	55.00	55.00	0.00	0.00	6



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:


We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	16 June - 09
ABC LAB. NO.:	VIC0609.195

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000

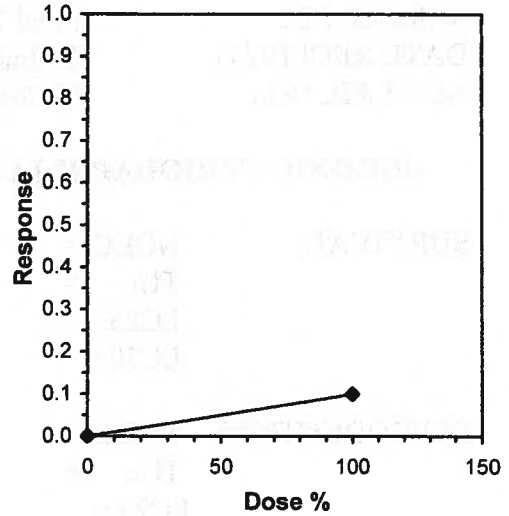
Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	0.9000	0.9000	1	9	10	10	0.5000	0.0500	0.9000	0.9000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	50.000			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

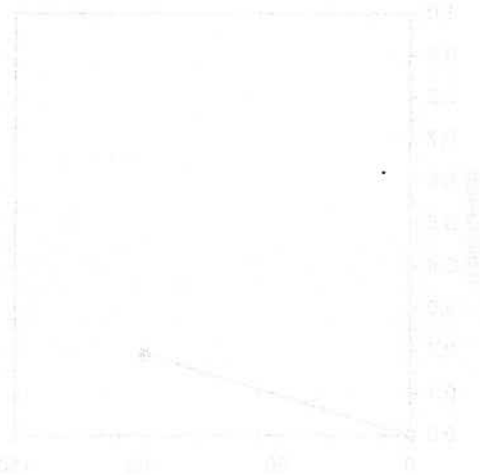
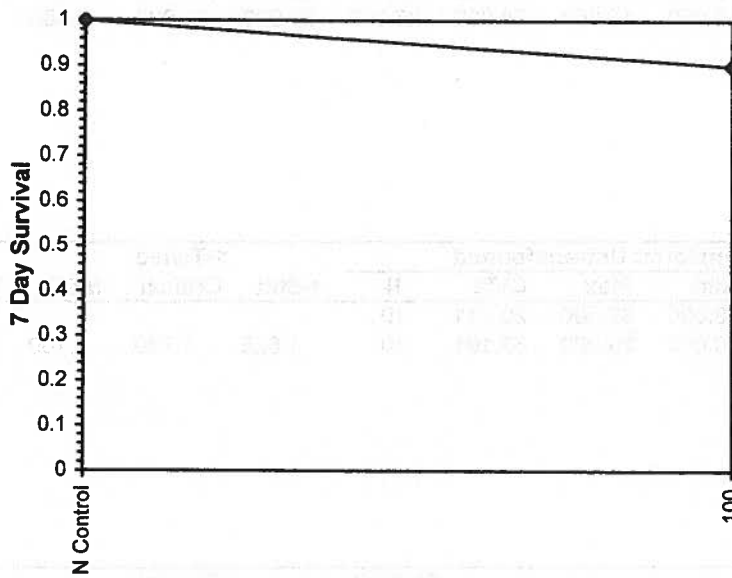
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/16/2009 Test ID: VIC0609195 Sample ID: CA0000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	23.000	28.000	22.000	25.000	25.000	20.000	18.000	24.000	25.000	37.000
100	25.000	22.000	26.000	18.000	15.000	24.000	25.000	23.000	21.000	0.000

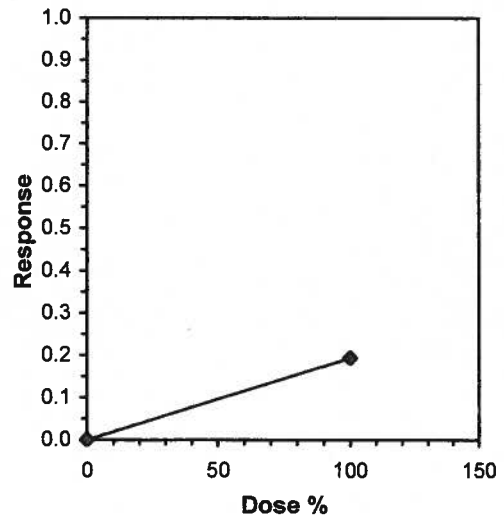
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	24.700	1.0000	24.700	18.000	37.000	20.911	10				24.700	1.0000	
100	19.900	0.8057	19.900	0.000	26.000	39.101	10	1.625	1.730	5.109	19.900	0.8057	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89601	0.868	-1.3072	4.33728						
F-Test indicates equal variances (p = 0.24)	2.26947	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	5.10928	0.20685	115.2	43.6111	0.12148	1, 18
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05*	25.729			
IC10*	51.458			
IC15*	77.188			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

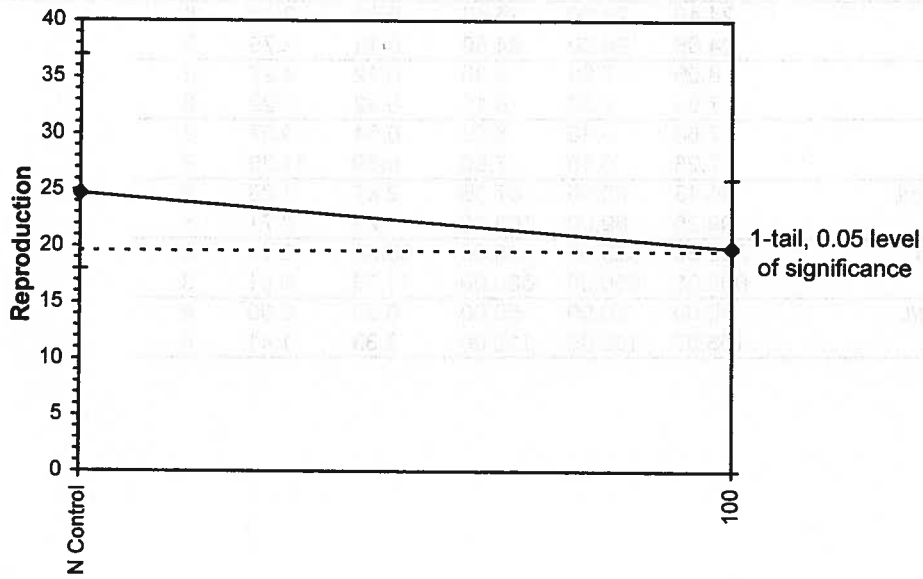
* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009 Test ID: VIC0609195 Sample ID: CA0000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.84	7.30	8.10	0.32	7.22	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		7.28	6.10	7.90	0.69	11.39	8
N Control	Hardness mg/L	86.13	80.00	87.00	2.47	1.83	8
100		99.25	89.00	108.00	7.23	2.71	8
N Control	Cond-umhos	386.38	323.00	545.00	68.59	2.14	8
100		668.38	656.00	685.00	11.78	0.51	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
100		108.50	106.00	112.00	2.33	1.41	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
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Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* — EPA-821-R-02-013. Results were as follows:


CLIENT: Victor Valley WRA
SAMPLE I.D.: Upstream Mojave River
DATE RECEIVED: 16 June - 09
ABC LAB. NO.: VIC0609.196

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL NOEC = 100.00 %
 TUc = 1.00
 LC25 = >100.00 %
 LC50 = >100.00 %

REPRODUCTION NOEC = 100.00 %
 TUc = 1.00
 LC25 = >100.00 %
 LC50 = >100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

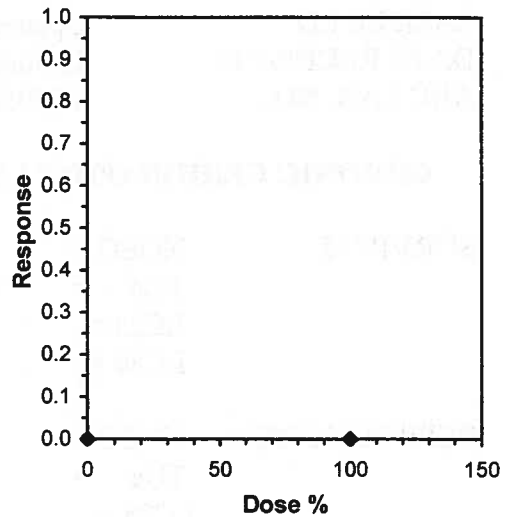
Hypothesis Test (1-tail, 0.05)

	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/16/2009

Test ID: VIC0609196

Sample ID: CA0000000

End Date: 6/23/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

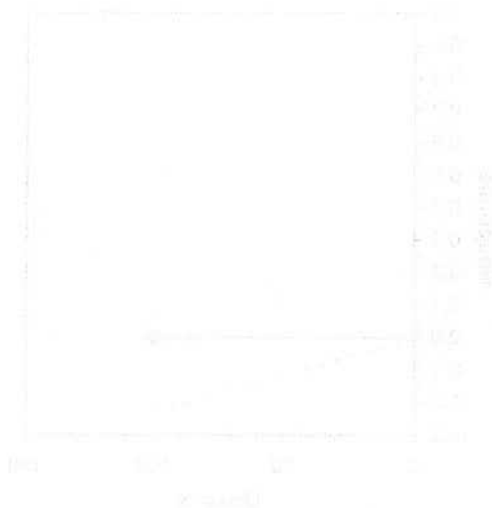
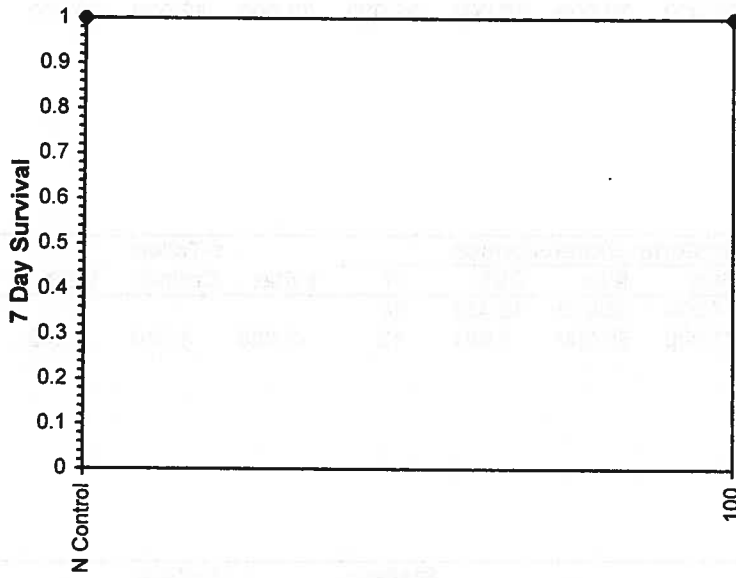
Sample Date: 6/15/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Upstream Mojave River

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

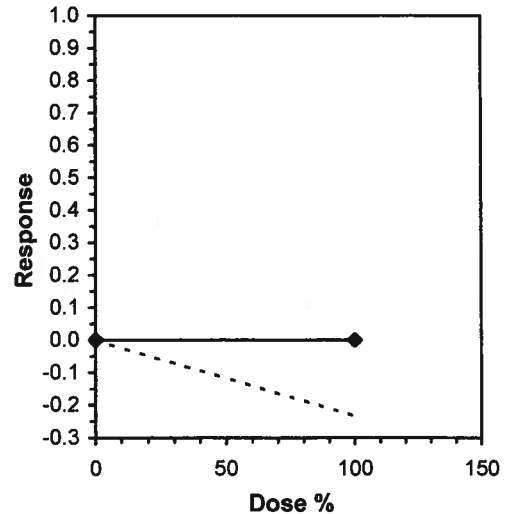
Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	23.000	28.000	17.000	23.000	32.000	28.000	29.000	24.000	20.000	20.000
100	30.000	29.000	28.000	28.000	30.000	35.000	32.000	27.000	32.000	30.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	24.400	1.0000	24.400	17.000	32.000	19.435	10				27.250	1.0000	
100	30.100	1.2336	30.100	27.000	35.000	7.901	10	-3.398	1.730	2.902	27.250	1.0000	

Auxiliary Tests				Statistic	Critical	Skew	Kurt				
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)				0.98062	0.868	0.15642	-0.0392				
F-Test indicates equal variances (p = 0.05)				3.97642	6.54109						
Hypothesis Test (1-tail, 0.05)		NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test		100	>100		1	2.9023	0.11895	162.45	14.0722	0.00321	1, 18

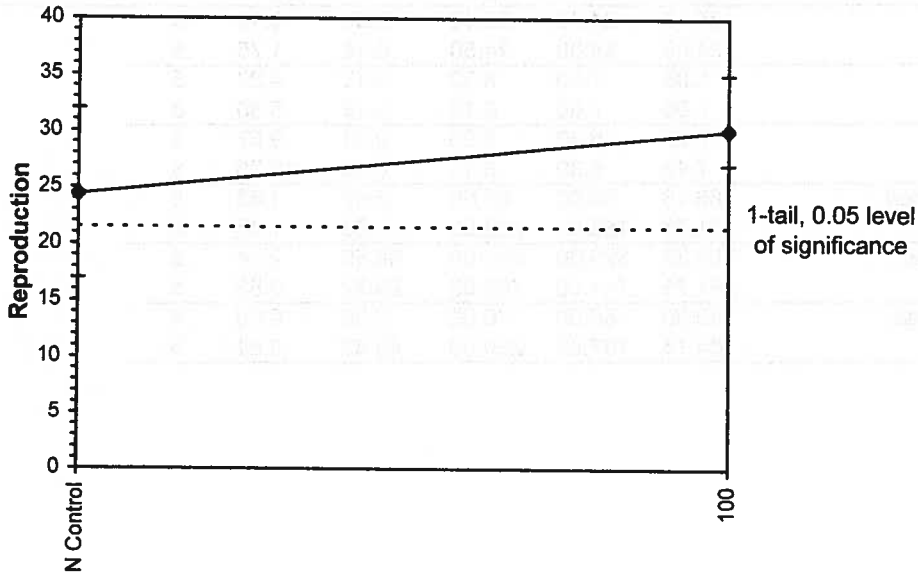
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009 Test ID: VIC0609196 Sample ID: CA0000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River

Dose-Response Plot

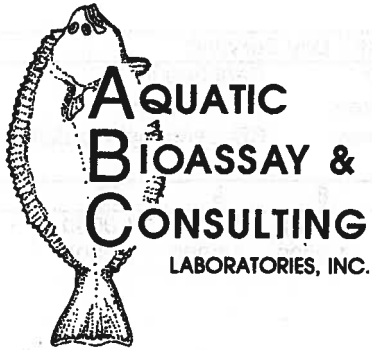


Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Upstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.95	7.60	8.10	0.18	5.30	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		7.48	6.30	8.10	0.59	10.25	8
N Control	Hardness mg/L	86.13	80.00	87.00	2.47	1.83	8
100		191.75	185.00	202.00	7.69	1.45	8
N Control	Cond-umhos	386.38	323.00	545.00	68.59	2.14	8
100		761.75	741.00	799.00	23.32	0.63	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
100		184.75	107.00	230.00	49.63	3.81	8



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June 30, 2009

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CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Downstream Mojave River
DATE RECEIVED:	16 June - 09
ABC LAB. NO.:	VIC0609.197

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %
REPRODUCTION	NOEC =	100.00 %
	TU _c =	1.00
	LC25 =	>100.00 %
	LC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

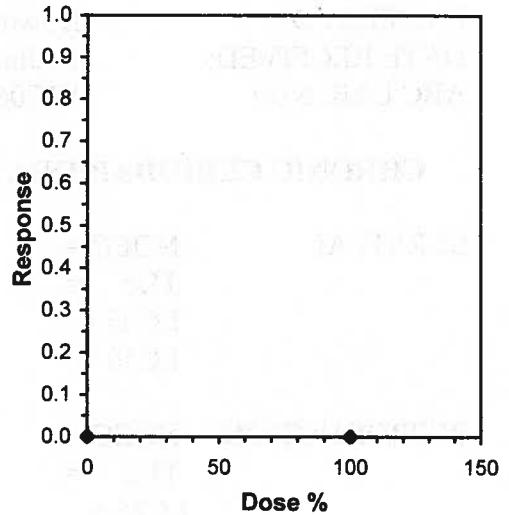
Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/16/2009

Test ID: VIC0609197

Sample ID: CA0000000

End Date: 6/23/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

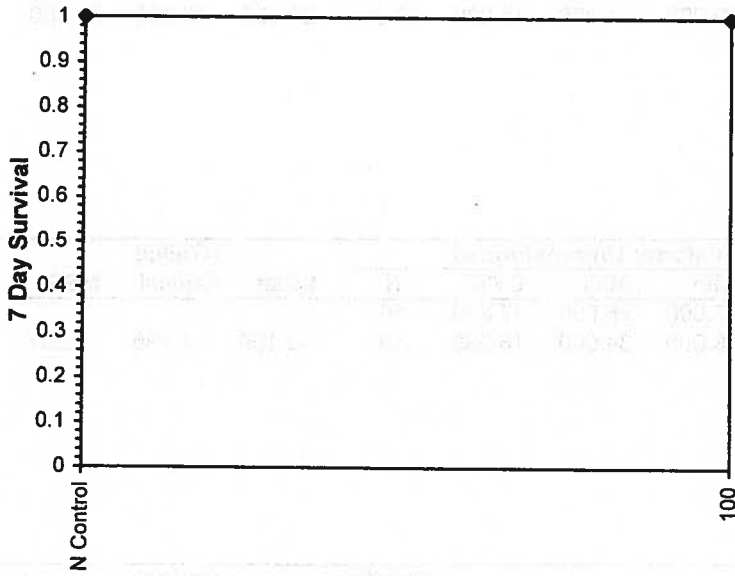
Sample Date: 6/15/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Downstream Mojave River

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	25.000	27.000	19.000	28.000	22.000	24.000	18.000	17.000	20.000	19.000
100	34.000	30.000	25.000	29.000	24.000	18.000	28.000	28.000	30.000	31.000

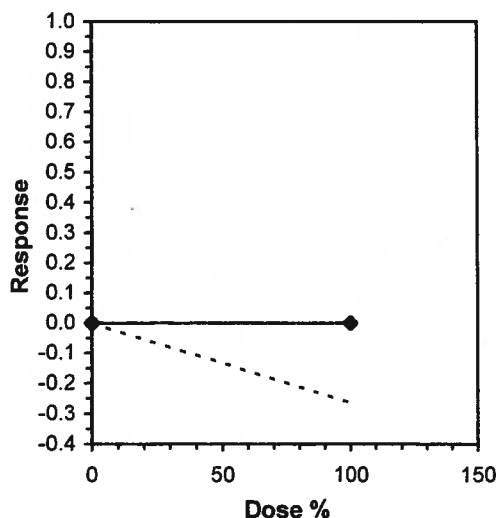
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	21.900	1.0000	21.900	17.000	28.000	17.809	10				24.800	1.0000	
100	27.700	1.2648	27.700	18.000	34.000	16.059	10	-3.100	1.730	3.237	24.800	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9635	0.868	-0.4369	0.1354						
F-Test indicates equal variances (p = 0.70)	1.30095	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	3.23653	0.14779	168.2	17.5	0.00618	1, 18

Treatments vs N Control

Linear Interpolation (200 Resamples)

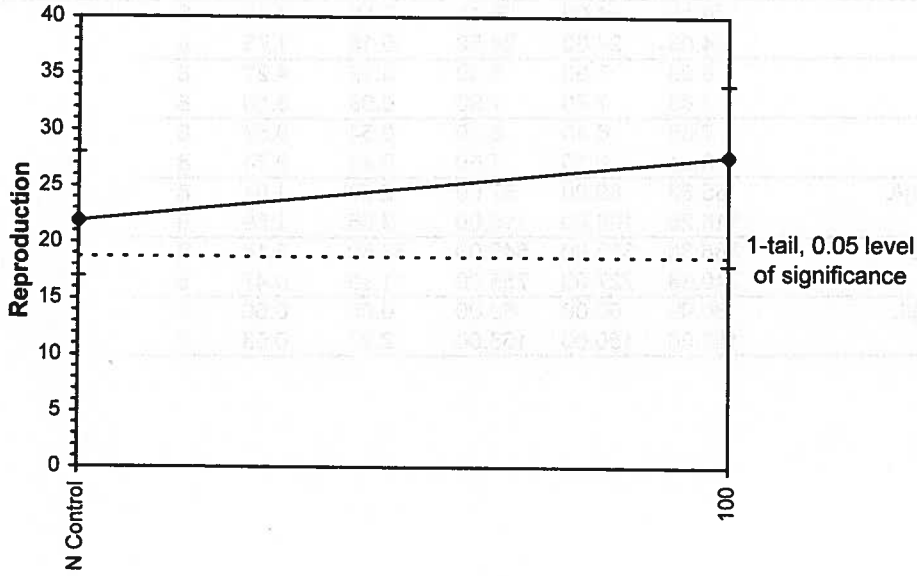
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA0000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Downstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.85	7.70	7.90	0.08	3.50	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		6.94	6.10	7.60	0.46	9.74	8
N Control	Hardness mg/L	85.63	80.00	87.00	2.67	1.91	8
100		110.25	108.00	115.00	3.06	1.59	8
N Control	Cond-umhos	386.38	323.00	545.00	68.59	2.14	8
100		740.38	727.00	755.00	11.99	0.47	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
100		153.00	150.00	156.00	2.27	0.98	8



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

VWVRA ID #	Sampler Signature	Sample Location/Description	Sample Date	Sample Time	Sample Type	Laboratory Analyses Requested				# Sample Containers	Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)
						Chronic Toxicity larvae (FML) - survival & growth	Chronic Toxicity Ceriodaphnia dubia survival & reproduction	Chronic Toxicity	Chronic Toxicity		Refrigeration		
5982	<i>Gina Cloutier</i>	Final Effluent to Mojave River Grab	6/15/09	1050	Grab	X	X	X		1	X		WW
5983		Upstream Mojave River	6/15/09	1030	Grab	X	X	X		1	X		SW
5984		Downstream Mojave River	6/15/09	1000	Grab	X	X	X		1	X		SW
Relinquished By (Sign): <i>Gina Cloutier</i>						Received By (Sign):		Relinquished By (Sign):		Received By (Sign):			
Date/Time: 6/15/09 1115						Print: _____ Company: VVWRA		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____	
Relinquished By (Sign):						Received By (Sign):		Relinquished By (Sign):		Received By (Sign):			
Date/Time:						Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____		Print: _____ Company: _____	
Sample Condition Upon Receipt by Laboratory:						Temperature _____ °C		Laboratory Notes		Laboratory Notes		Lab #	
Samples Received on Ice? Yes No						Temperature		Laboratory Notes		Laboratory Notes		Lab #	
Samples Received Intact? Yes No						Temperature		Laboratory Notes		Laboratory Notes		Lab #	



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

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Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849

Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Accelerated/Repeats			Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix (WW, DW, GW, SG)
Project Contact: Gina Cloutier (760) 246-8638 ext. 216			Survival & growth larvae (FML) - Pimephales promelas				Refrigeration		
Sampler Name: Gina Cloutier			Survival & reproduction Ceriodaphnia dubia						# Sample Containers
Sampler Signature: <i>Gina Cloutier</i>			Chronic Toxicity survival & growth larvae (FML) - Pimephales promelas						
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type	Chronic Toxicity survival & growth larvae (FML) - Pimephales promelas	Chronic Toxicity survival & reproduction Ceriodaphnia dubia	Chronic Toxicity survival & reproduction		
5995	Final Effluent to Mojave River Grab	6/17/09	0615	Grab	X	X	X	1	WW
5996	Upstream Mojave River	6/17/09	0950	Grab	X	X	X	1	SW
5997	Downstream Mojave River	6/17/09	0911	Grab	X	X	X	1	SW
	TEMP - 11.9°C								
	CAT - 20.1								
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 6/17/09 1030		Received By (Sign): <i>RJ de la</i>		Date/Time:		Received By (Sign):	
Print: <i>Gina Cloutier</i>		Company: VVWRA		Print: _____		Company: _____		Print: _____	
Relinquished By (Sign):		Date/Time:		Received By (Sign):		Date/Time:		Received By (Sign):	
Print: _____		Company: _____		Print: _____		Company: _____		Print: _____	
Sample Condition Upon Receipt by Laboratory:		Temperature		Laboratory Notes		Laboratory Notes		Samples sent via Fed Ex to:	
Samples Received on Ice? Yes No		Temperature _____°C						Aquatic Bioassay and Consulting Laboratories Lab #	
Samples Received Intact? Yes No									



LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
 Administration Office Address: 15776 Main Street, Suite 3 · Hesperia, CA 92345 · TEL: (760) 948-9849
 Website: www.vvwwra.com E-mail: gcloutier@vvwwra.com

Project Name: Quarterly/Annual NPDES Samples - Accelerated/Repeats		Sample Type		Laboratory Analyses Requested				Sample Preservation Methods		Sample Matrix	
Project Contact: Gina Cloutier (760) 246-8638 ext. 216		Composite		Chronic Toxicity	Chronic Toxicity - Pimphales promelas larvae (FML) - survival & growth	Chronic Toxicity	Ceriodaphnia dubia survival & reproduction	Refrigeration			
VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Grab							
06042	Final Effluent to Mojave River Grab	4/9/09	0638	X	X	X	X	X	1	WW	
6047	Upstream Mojave River	6/19/9	1014	X	X	X	X	X	1	SW	
6048	Downstream Mojave River	6/19/9	0932	X	X	X	X	X	1	SW	
Relinquished By (Sign): <i>Gina Cloutier</i>		Date/Time: 6/19/09		Received By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:	
Print: Gina Cloutier		1030		Print: _____		Print: _____		Print: _____		Print: _____	
Company: VVWRA				Company: _____		Company: _____		Company: _____		Company: _____	
Relinquished By (Sign): <i>[Signature]</i>		Date/Time: 6/20/09		Received By (Sign):		Date/Time:		Relinquished By (Sign):		Date/Time:	
Print: A. Ramos		1100		Print: _____		Print: _____		Print: _____		Print: _____	
Company: A. Ramos				Company: _____		Company: _____		Company: _____		Company: _____	
Sample Condition Upon Receipt by Laboratory:				Laboratory Notes				Received By (Sign):			
Samples Received on Ice? Yes No				Temperature 9.1 °C				Print: _____			
Samples Received Intact? Yes No								Company: _____			
								Samples sent via Fed Ex to: Aquatic Bioassay and Consulting Laboratories Lab #			



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 2 June - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 5.00 ug/l

IC25 = 6.16 ug/l

IC50 = 7.68 ug/l


ENDPOINT: REPRODUCTION

NOEC = 3.00 ug/l

IC25 = 3.32 ug/l

IC50 = 8.86 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

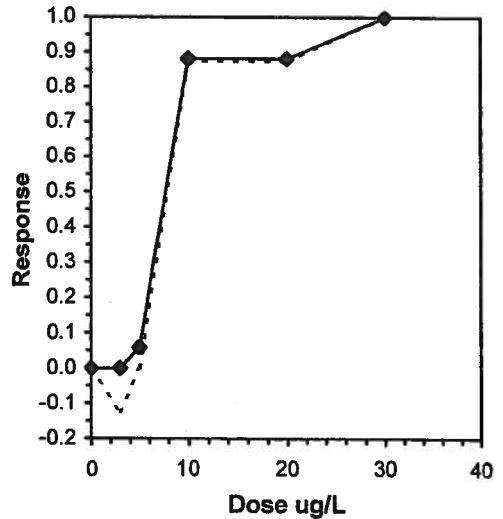
Start Date: 6/2/2009	Test ID: CER060209	Sample ID: CA0000000
End Date: 6/9/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/2/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
3	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
20	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	0.8000	1.0000	2	8	10	10			0.8500	1.0000
3	0.9000	1.1250	1	9	10	10	0.5000	0.0500	0.8500	1.0000
5	0.8000	1.0000	2	8	10	10	0.7090	0.0500	0.8000	0.9412
*10	0.1000	0.1250	9	1	10	10	0.0027	0.0500	0.1000	0.1176
*20	0.1000	0.1250	9	1	10	10	0.0027	0.0500	0.1000	0.1176
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	5	10	7.07107	
Treatments vs N Control				

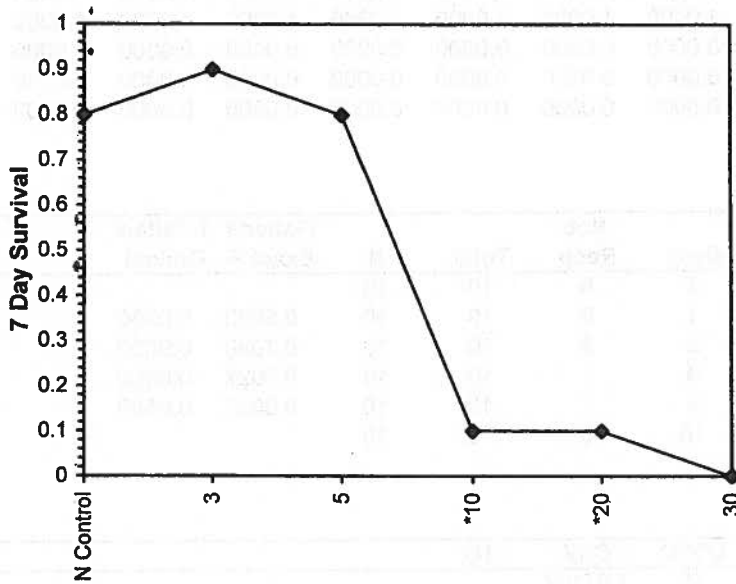
Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	4.7000	1.3396	0.9975	5.3756	-0.9295
IC10	5.2500	1.0686	1.9950	5.7513	-1.1325
IC15	5.5536	0.9050	3.2363	6.1269	-1.2699
IC20	5.8571	0.7904	3.8989	6.5025	-1.1808
IC25	6.1607	0.7244	4.2121	6.8781	-0.8302
IC40	7.0714	0.7492	4.9393	8.2021	-0.7168
IC50	7.6786	1.1341	5.8333	9.0027	6.4125



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 6/2/2009 Test ID: CER060209 Sample ID: CA0000000
End Date: 6/9/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 6/2/2009 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/2/2009	Test ID: CER060209	Sample ID: CA0000000
End Date: 6/9/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/2/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	20.000	23.000	19.000	15.000	22.000	26.000	0.000	22.000	18.000	0.000
3	16.000	7.000	7.000	11.000	14.000	13.000	13.000	8.000	11.000	30.000
5	0.000	4.000	10.000	12.000	3.000	5.000	15.000	23.000	10.000	9.000
10	15.000	13.000	12.000	0.000	9.000	0.000	0.000	0.000	18.000	13.000
20	3.000	0.000	0.000	0.000	4.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-ug/L	Transform: Untransformed							1-Tailed			Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	16.500	1.0000	16.5000	0.0000	26.0000	55.711	10				16.500	1.0000
3	13.000	0.7879	13.0000	7.0000	30.0000	51.538	10	1.157	2.223	6.7233	13.000	0.7879
*5	9.100	0.5515	9.1000	0.0000	23.0000	73.342	10	2.447	2.223	6.7233	9.100	0.5515
*10	8.000	0.4848	8.0000	0.0000	18.0000	90.523	10	2.811	2.223	6.7233	8.000	0.4848
*20	0.700	0.0424	0.7000	0.0000	4.0000	213.491	10	5.225	2.223	6.7233	0.700	0.0424
30	0.000	0.0000	0.0000	0.0000	0.0000	0.000	10				0.000	0.0000

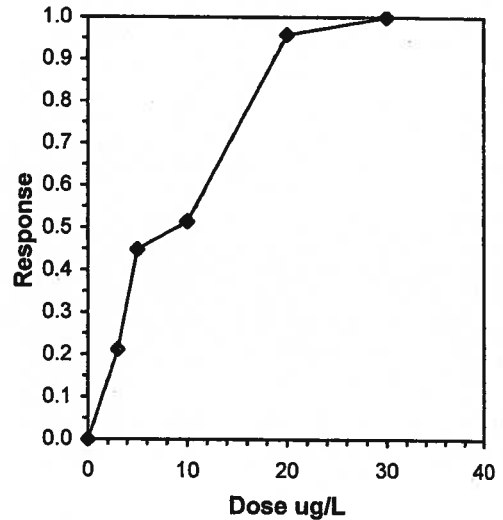
Auxiliary Tests

	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.9704	0.93	-0.133	1.06327
Bartlett's Test indicates unequal variances (p = 5.17E-04)	19.9247	13.2767		
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Dunnett's Test	3	5	3.87298	
Treatments vs N Control	MSDu	MSDp	MSB	MSE
	6.72331	0.40747	352.73	45.7222
	F-Prob	df		
	8.0E-05	4, 45		

Linear Interpolation (200 Resamples)

Point	ug/L	SD	95% CL		Skew
IC05*	0.7071	1.1792	0.3237	3.5340	1.3281
IC10*	1.4143	1.2841	0.6473	5.4519	1.0662
IC15*	2.1214	1.3456	0.9710	6.0859	0.9607
IC20*	2.8286	1.5186	1.2946	7.0568	1.3759
IC25	3.3205	1.6632	1.6183	7.8068	1.4815
IC40	4.5897	2.7375	2.5892	11.5662	0.9218
IC50	8.8636	3.1003	3.8385	13.1533	0.1703

* indicates IC estimate less than the lowest concentration



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/2/2009

Test ID: CER060209

Sample ID: CA0000000

End Date: 6/9/2009

Lab ID: CAABC

Sample Type: CUCL-Copper chloride

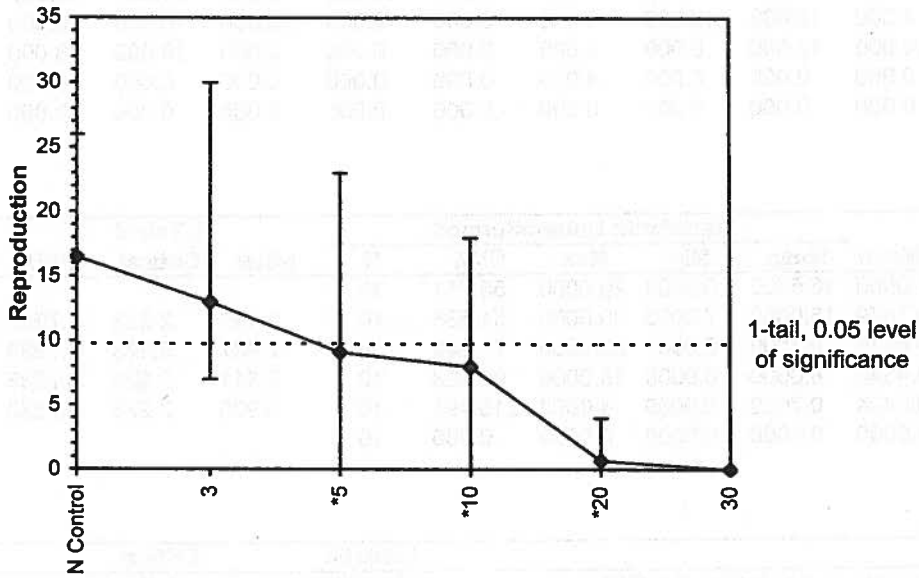
Sample Date: 6/2/2009

Protocol: EPA-821-R-02-013

Test Species: CD-Ceriodaphnia dubia

Comments: Standard Toxicant

Dose-Response Plot



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 6/2/2009	Test ID: CER060209	Sample ID: CA0000000
End Date: 6/9/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/2/2009	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.61	24.00	25.60	0.61	3.16	8
3		24.00	24.00	24.00	0.00	0.00	8
5		24.00	24.00	24.00	0.00	0.00	8
10		24.00	24.00	24.00	0.00	0.00	8
20		24.00	24.00	24.00	0.00	0.00	8
30		24.00	24.00	24.00	0.00	0.00	7
N Control	pH	8.05	7.90	8.20	0.11	4.06	8
3		7.95	7.80	8.10	0.09	3.83	8
5		7.95	7.80	8.10	0.09	3.83	8
10		7.95	7.90	8.10	0.08	3.46	8
20		7.93	7.80	8.10	0.09	3.76	8
30		7.96	7.90	8.10	0.08	3.53	7
N Control	DO mg/L	7.35	6.40	8.10	0.54	9.97	8
3		6.95	6.00	8.00	0.66	11.70	8
5		7.08	6.50	8.10	0.59	10.85	8
10		7.14	6.50	8.10	0.53	10.24	8
20		7.19	6.50	8.10	0.56	10.43	8
30		7.36	6.50	8.10	0.63	10.81	7
N Control	Hardness mg/L	88.13	80.00	97.00	5.96	2.77	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		102.00	102.00	102.00	0.00	0.00	7
N Control	Cond umhos	356.25	333.00	432.00	35.91	1.68	8
3		332.38	311.00	350.00	11.96	1.04	8
5		324.50	308.00	337.00	11.67	1.05	8
10		323.88	309.00	333.00	9.58	0.96	8
20		324.38	310.00	334.00	9.44	0.95	8
30		326.29	310.00	334.00	9.20	0.93	7
N Control	Alkalinity mg/L	62.00	60.00	65.00	2.27	2.43	8
3		0.00	0.00	0.00	0.00		0
5		0.00	0.00	0.00	0.00		0
10		0.00	0.00	0.00	0.00		0
20		0.00	0.00	0.00	0.00		0
30		56.00	56.00	56.00	0.00	0.00	7



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River
DATE RECEIVED:	21 Jan - 09
ABC LAB. NO.:	VIC0109.210

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	100.00 %
	TU _c	=	1.00
	LC25	=	>100.00 %
	LC50	=	>100.00 %
TERATOGENICITY	NOEC	=	100.00 %
	TU _c	=	1.00
	LC25	=	>100.00 %
	LC50	=	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Conc-%	1	2	3	4
N Control	0.9333	0.9333	0.9333	0.8667
100	1.0000	0.6667	0.8667	0.6000

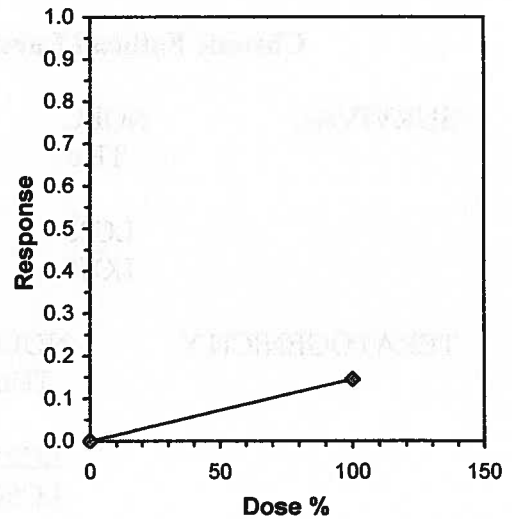
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9167	1.0000	1.2815	1.1970	1.3096	4.395	4				0.9167	1.0000	
100	0.7833	0.8545	1.1199	0.8861	1.4413	22.532	4	1.250	1.940	0.2508	0.7833	0.8545	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93122	0.749	0.62348	1.15049						
F-Test indicates equal variances (p = 0.03)	20.0765	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.18304	0.19925	0.05219	0.03342	0.25796	1, 6

Treatments vs N Control
Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	34.375			
IC10*	68.750			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

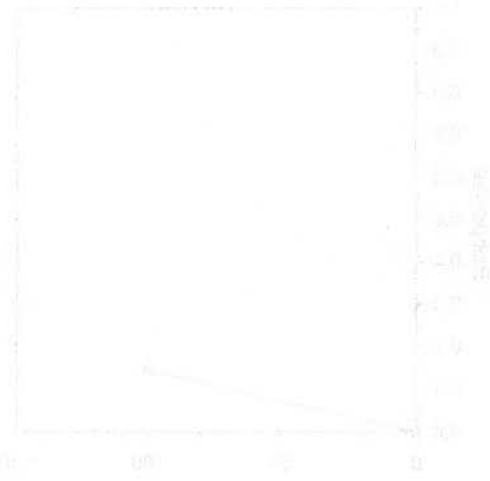
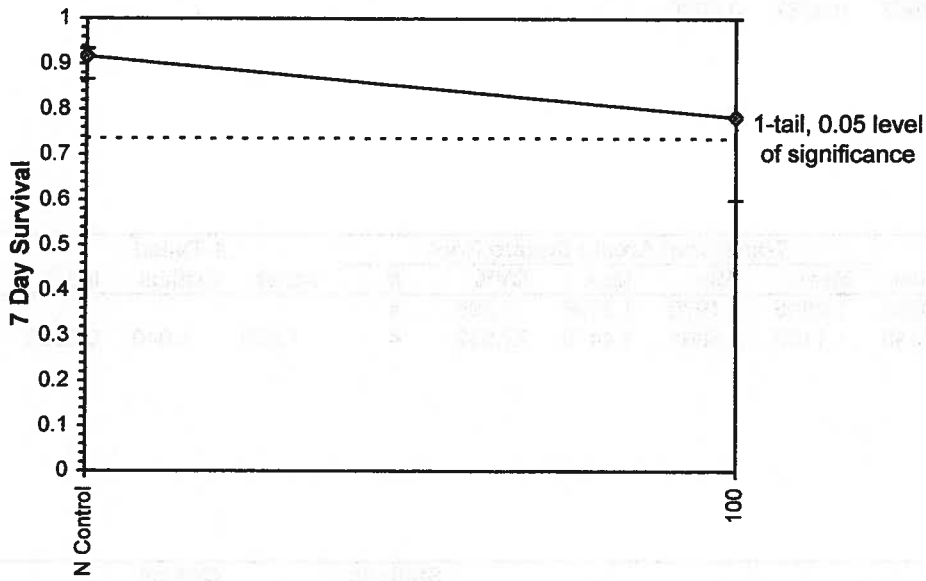
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009 Test ID: VIC0109210 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: VIC0109210	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Conc-%	1	2	3	4
N Control	0.9333	0.9333	0.9333	0.8667
100	1.0000	0.6667	0.8667	0.6000

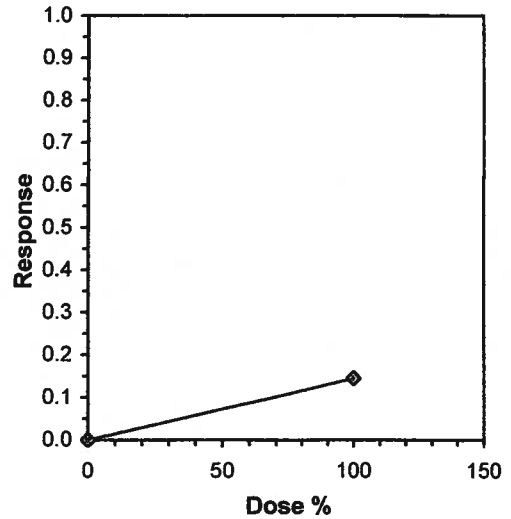
Conc-%	Transform: Arcsin Square Root							1-Tailed			Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	0.9167	1.0000	1.2815	1.1970	1.3096	4.395	4				0.9167	1.0000
100	0.7833	0.8545	1.1199	0.8861	1.4413	22.532	4	1.250	1.940	0.2508	0.7833	0.8545

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.93122	0.749	0.62348	1.15049						
F-Test indicates equal variances ($p = 0.03$)	20.0765	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.18304	0.19925	0.05219	0.03342	0.25796	1, 6

Treatments vs N Control

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05*	34.375			
IC10*	68.750			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

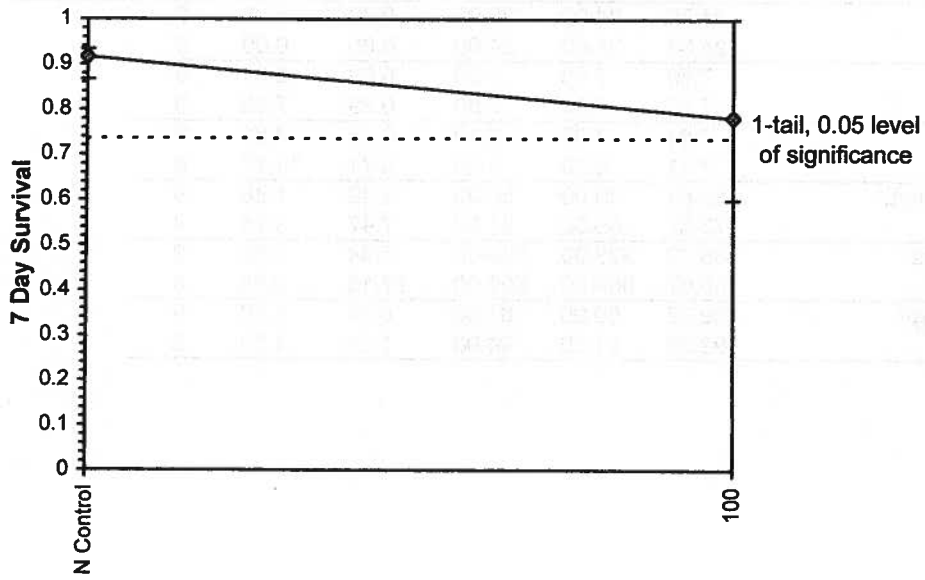
* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: VIC0109210 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: VIC0109210 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.39	24.00	26.00	0.78	3.63	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	7.89	7.80	7.90	0.03	2.31	9
100		7.26	7.00	7.80	0.29	7.45	9
N Control	DO mg/L	7.84	7.60	8.10	0.14	4.81	9
100		7.61	6.20	8.50	0.71	11.11	9
N Control	Hardness mg/L	82.89	80.00	88.00	2.42	1.88	9
100		73.67	65.00	81.00	7.47	3.71	9
N Control	Cond umhos	338.22	323.00	349.00	7.34	0.80	9
100		768.67	659.00	805.00	57.15	0.98	9
N Control	Alkalinity mg/L	60.22	60.00	61.00	0.44	1.10	9
100		92.56	91.00	94.00	1.24	1.20	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

January 30, 2009

Ms. Gina Cloutier
Victor Valley WWRRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*.

Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Upstream Mojave River
DATE RECEIVED:	21 Jan - 09
ABC LAB. NO.:	VIC0109.212

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	>100.00 %
	LC50	=	>100.00 %
TERATOGENICITY	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	>100.00 %
	LC50	=	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River		

Conc-%	1	2	3	4
N Control	1.0000	0.9333	0.9333	1.0000
100	0.5333	0.8667	0.6667	0.8667

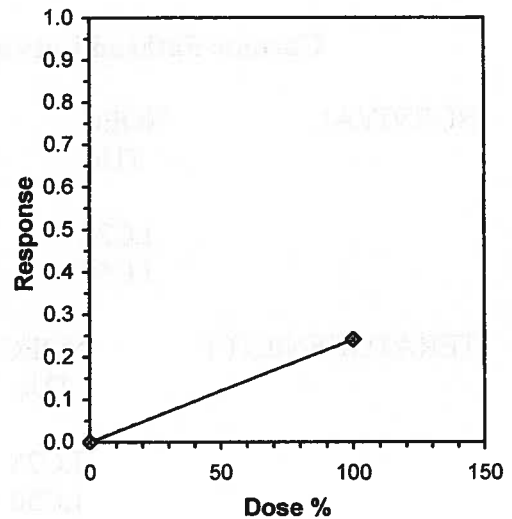
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9667	1.0000	1.3755	1.3096	1.4413	5.528	4				0.9667	1.0000	
*100	0.7333	0.7586	1.0420	0.8188	1.1970	17.988	4	3.297	1.940	0.1962	0.7333	0.7586	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91825	0.749	-0.3556	-0.696						
F-Test indicates equal variances (p = 0.17)	6.07728	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.10795	0.11217	0.2224	0.02046	0.01647	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	20.714	10.387	3.459 96.914	1.9923
IC10*	41.429			
IC15*	62.143			
IC20*	82.857			
IC25	>100			
IC40	>100			
IC50	>100			

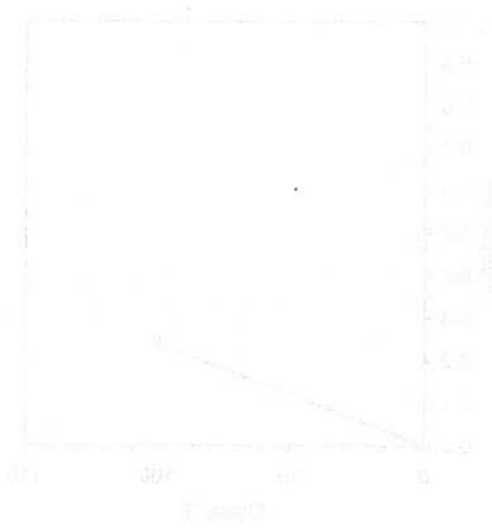
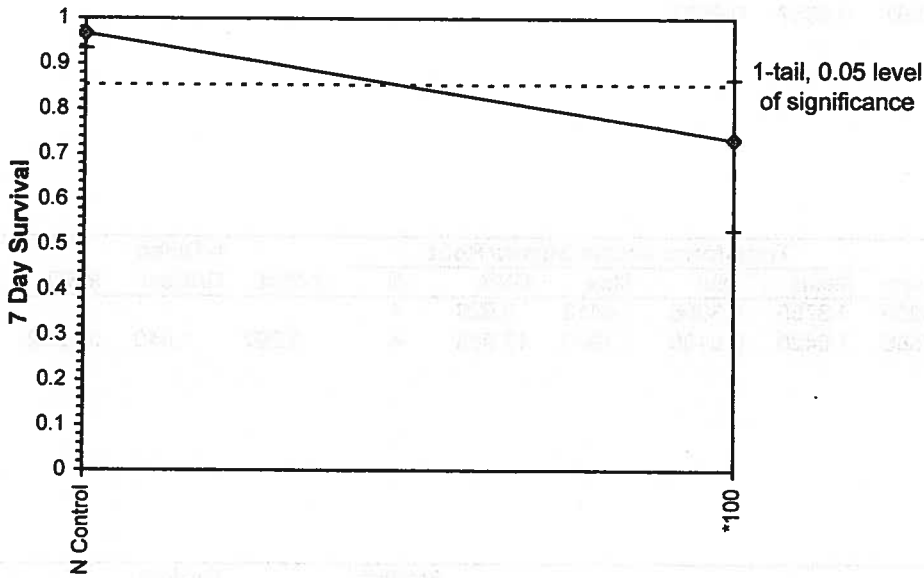
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009 Test ID: VIC0109212 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: VIC0109212	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River		

Conc-%	1	2	3	4
N Control	1.0000	0.9333	0.9333	1.0000
100	0.5333	0.8667	0.6667	0.8667

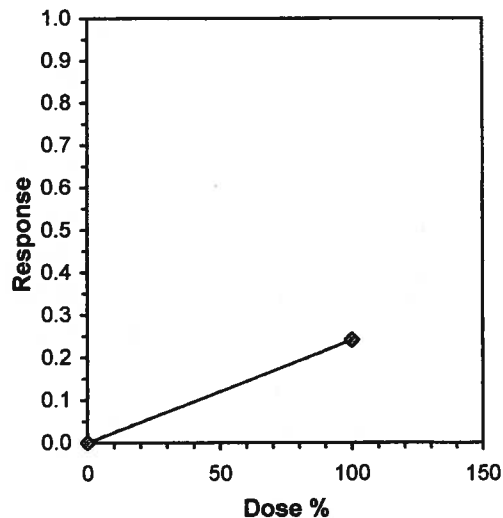
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.9667	1.0000	1.3755	1.3096	1.4413	5.528	4				0.9667	1.0000
*100	0.7333	0.7586	1.0420	0.8188	1.1970	17.988	4	3.297	1.940	0.1962	0.7333	0.7586

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91825	0.749	-0.3556	-0.696						
F-Test indicates equal variances (p = 0.17)	6.07728	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs N Control	<100	100			0.10795	0.11217	0.2224	0.02046	0.01647	1, 6

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	20.714	10.387	3.459 96.914	1.9923
IC10*	41.429			
IC15*	62.143			
IC20*	82.857			
IC25	>100			
IC40	>100			
IC50	>100			

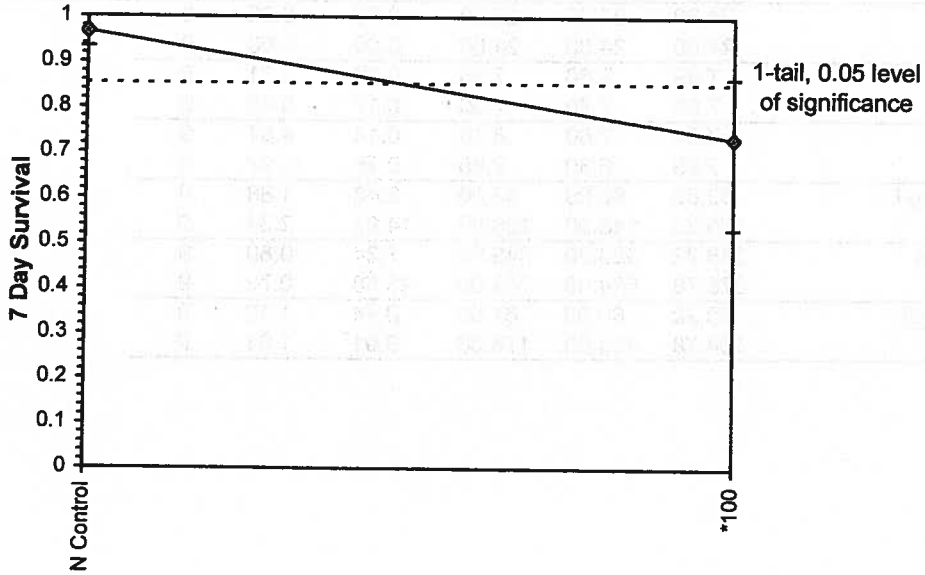
* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: VIC0109212 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: VIC0109212 Sample ID: CA0000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.39	24.00	26.00	0.78	3.63	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	7.89	7.80	7.90	0.03	2.31	9
100		7.56	7.40	7.80	0.17	5.40	9
N Control	DO mg/L	7.84	7.60	8.10	0.14	4.81	9
100		7.89	6.30	8.80	0.75	10.97	9
N Control	Hardness mg/L	82.89	80.00	88.00	2.42	1.88	9
100		165.33	148.00	186.00	14.93	2.34	9
N Control	Cond umhos	338.22	323.00	349.00	7.34	0.80	9
100		675.78	634.00	702.00	23.58	0.72	9
N Control	Alkalinity mg/L	60.22	60.00	61.00	0.44	1.10	9
100		164.78	153.00	178.00	9.91	1.91	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH
January 30, 2009

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Dear Ms. Cloutier:


We are pleased to present the enclosed revised bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT: Victor Valley WRA
SAMPLE I.D.: Downstream Mojave River
DATE RECEIVED: 21 Jan - 09
ABC LAB. NO.: VIC0109.213

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	72.50 %
	LC50	=	>100.00 %
TERATOGENICITY	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	72.50 %
	LC50	=	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	1.0000	0.9333	0.9333	1.0000
100	0.8667	0.6000	0.5333	0.5333

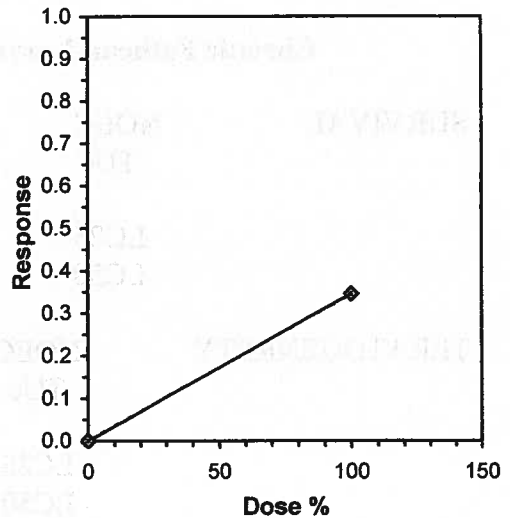
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9667	1.0000	1.3755	1.3096	1.4413	5.528	4				0.9667	1.0000	
*100	0.6333	0.6552	0.9301	0.8188	1.1970	19.428	4	4.543	1.940	0.1902	0.6333	0.6552	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.82892	0.749	1.4552	1.99568						
F-Test indicates equal variances (p = 0.19)	5.64868	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.10372	0.10778	0.39665	0.01922	0.00392	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)		Skew
IC05*	14.500	3.520	7.877	39.414	2.1473
IC10*	29.000	7.040	15.754	78.827	2.1473
IC15*	43.500	10.561	23.631	118.241	2.1473
IC20*	58.000				
IC25*	72.500				
IC40	>100				
IC50	>100				

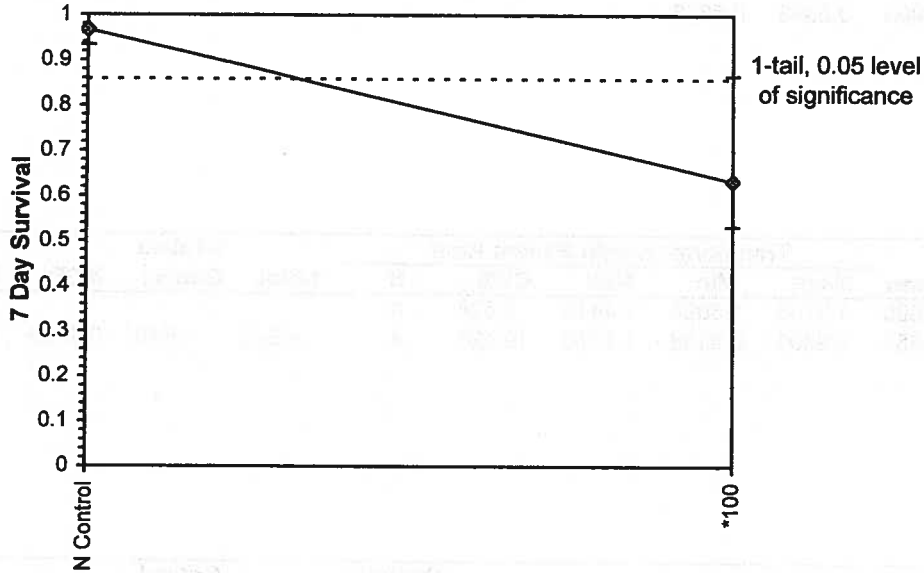
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009 Test ID: VIC0109213 Sample ID: CA000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	1.0000	0.9333	0.9333	1.0000
100	0.8667	0.6000	0.5333	0.5333

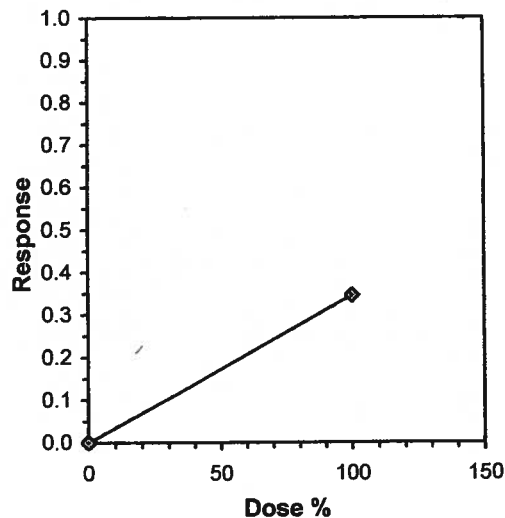
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9667	1.0000	1.3755	1.3096	1.4413	5.528	4				0.9667	1.0000	
*100	0.6333	0.6552	0.9301	0.8188	1.1970	19.428	4	4.543	1.940	0.1902	0.6333	0.6552	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.82892	0.749	1.4552	1.99568						
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Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.10372	0.10778	0.39665	0.01922	0.00392	1, 6

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)		Skew
IC05*	14.500	3.520	7.877	39.414	2.1473
IC10*	29.000	7.040	15.754	78.827	2.1473
IC15*	43.500	10.561	23.631	118.241	2.1473
IC20*	58.000				
IC25*	72.500				
IC40	>100				
IC50	>100				

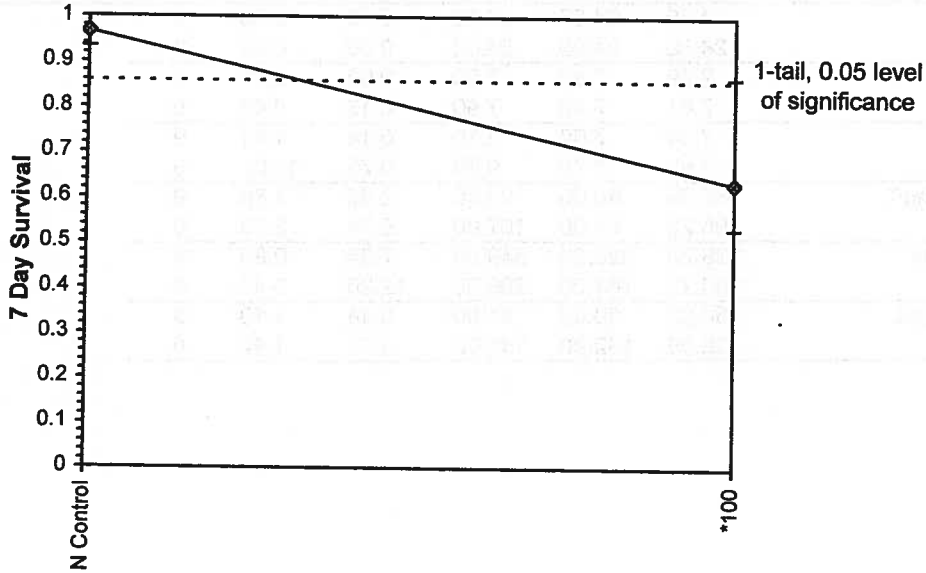
* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: VIC0109213	Sample ID: CA0000000
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 1/20/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: VIC0109213 Sample ID: CA000000
End Date: 1/29/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 1/20/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.39	24.00	26.00	0.78	3.63	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	7.89	7.80	7.90	0.03	2.31	9
100		7.61	7.40	7.90	0.18	5.63	9
N Control	DO mg/L	7.84	7.60	8.10	0.14	4.81	9
100		7.83	6.70	9.20	0.75	11.07	9
N Control	Hardness mg/L	82.89	80.00	88.00	2.42	1.88	9
100		95.22	91.00	107.00	6.74	2.73	9
N Control	Cond umhos	338.22	323.00	349.00	7.34	0.80	9
100		780.22	764.00	799.00	12.26	0.45	9
N Control	Alkalinity mg/L	60.22	60.00	61.00	0.44	1.10	9
100		135.56	132.00	140.00	3.71	1.42	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

**CHRONIC FATHEAD MINNOW SURVIVAL AND
TERATOGENICITY BIOASSAY**

DATE: 21 January - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 38.00 ug/l

IC25 = 44.14 ug/l

IC50 = 59.71 ug/l

ENDPOINT: TERATOGENICITY

NOEC = 38.00 ug/l

IC25 = 44.14 ug/l

IC50 = 59.71 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009	Test ID: FHD012109	Sample ID: REF-Ref Toxicant
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/21/2009	Protocol: EPAA 85-EPA Acute	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

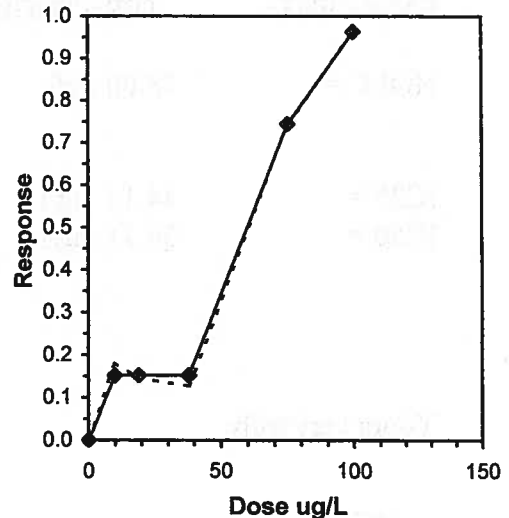
Conc-ug/L	1	2	3	4
N Control	0.8667	0.9333	1.0000	0.8667
10	0.3333	1.0000	0.7333	0.9333
19	0.8000	0.9333	0.6000	0.8000
38	0.8000	0.9333	0.7333	0.7333
75	0.4000	0.1333	0.2000	0.2000
100	0.0667	0.0000	0.0000	0.0667

Conc-ug/L	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9167	1.0000	1.2862	1.1970	1.4413	9.036	4				0.9167	1.0000	
10	0.7500	0.8182	1.0987	0.6155	1.4413	33.251	4	1.392	2.410	0.3247	0.7778	0.8485	
19	0.7833	0.8545	1.1025	0.8861	1.3096	15.692	4	1.364	2.410	0.3247	0.7778	0.8485	
38	0.8000	0.8727	1.1183	1.0282	1.3096	11.884	4	1.247	2.410	0.3247	0.7778	0.8485	
*75	0.2333	0.2545	0.4965	0.3738	0.6847	26.683	4	5.861	2.410	0.3247	0.2333	0.2545	
*100	0.0333	0.0364	0.1953	0.1295	0.2612	38.931	4	8.096	2.410	0.3247	0.0333	0.0364	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93142	0.884	-0.5162	2.02284						
Bartlett's Test indicates equal variances (p = 0.14)	8.40895	15.0863								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	38	75	53.3854		0.24871	0.26999	0.74799	0.03631	7.1E-07	5, 18
Treatments vs N Control										

Point	Linear Interpolation (200 Resamples)				
	ug/L	SD	95% CL(Exp)	Skew	
IC05*	3.300	5.337	0.900	27.050	2.1487
IC10*	6.600	9.479	1.799	58.459	1.6539
IC15*	9.900	14.090	2.699	60.866	0.4592
IC20	41.020	13.833	0.000	46.594	-1.0243
IC25	44.135	8.573	0.000	49.354	-3.1608
IC40	53.480	2.470	44.333	60.557	0.0164
IC50	59.709	2.553	52.005	67.207	0.6039

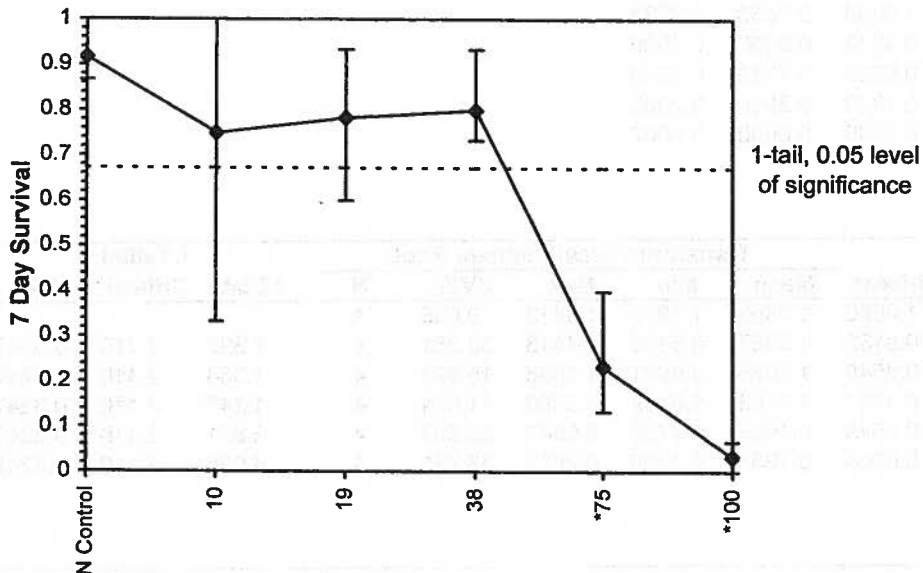
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 1/21/2009 Test ID: FHD012109 Sample ID: REF-Ref Toxicant
End Date: 1/29/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 1/21/2009 Protocol: EPAA 85-EPA Acute Test Species: PP-Pimephales promelas
Comments: Standard Toxicant

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: FHD012109	Sample ID: REF-Ref Toxicant
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/21/2009	Protocol: EPAA 85-EPA Acute	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

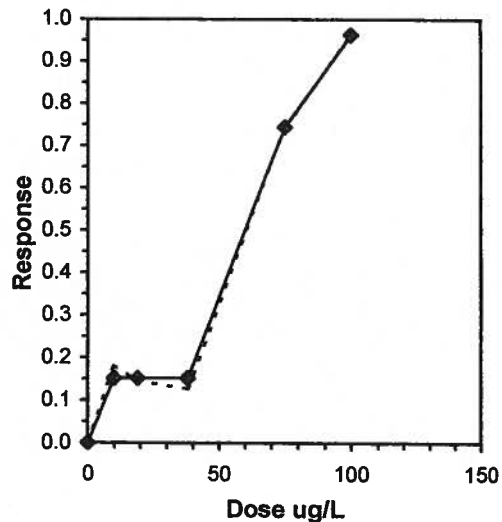
Conc-ug/L	1	2	3	4
N Control	0.8667	0.9333	1.0000	0.8667
10	0.3333	1.0000	0.7333	0.9333
19	0.8000	0.9333	0.6000	0.8000
38	0.8000	0.9333	0.7333	0.7333
75	0.4000	0.1333	0.2000	0.2000
100	0.0667	0.0000	0.0000	0.0667

Conc-ug/L	Transform: Arcsin Square Root						N	t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.9167	1.0000	1.2862	1.1970	1.4413	9.036	4				0.9167	1.0000
10	0.7500	0.8182	1.0987	0.6155	1.4413	33.251	4	1.392	2.410	0.3247	0.7778	0.8485
19	0.7833	0.8545	1.1025	0.8861	1.3096	15.692	4	1.364	2.410	0.3247	0.7778	0.8485
38	0.8000	0.8727	1.1183	1.0282	1.3096	11.884	4	1.247	2.410	0.3247	0.7778	0.8485
*75	0.2333	0.2545	0.4965	0.3738	0.6847	26.683	4	5.861	2.410	0.3247	0.2333	0.2545
*100	0.0333	0.0364	0.1953	0.1295	0.2612	38.931	4	8.096	2.410	0.3247	0.0333	0.0364

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93142	0.884	-0.5162	2.02284						
Bartlett's Test indicates equal variances (p = 0.14)	8.40895	15.0863								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	38	75	53.3854		0.24871	0.26999	0.74799	0.03631	7.1E-07	5, 18
Treatments vs N Control										

Point	Linear Interpolation (200 Resamples)				
	ug/L	SD	95% CL(Exp)	Skew	
IC05*	3.300	5.337	0.900	27.050	2.1487
IC10*	6.600	9.479	1.799	58.459	1.6539
IC15*	9.900	14.090	2.699	60.866	0.4592
IC20	41.020	13.833	0.000	46.594	-1.0243
IC25	44.135	8.573	0.000	49.354	-3.1608
IC40	53.480	2.470	44.333	60.557	0.0164
IC50	59.709	2.553	52.005	67.207	0.6039

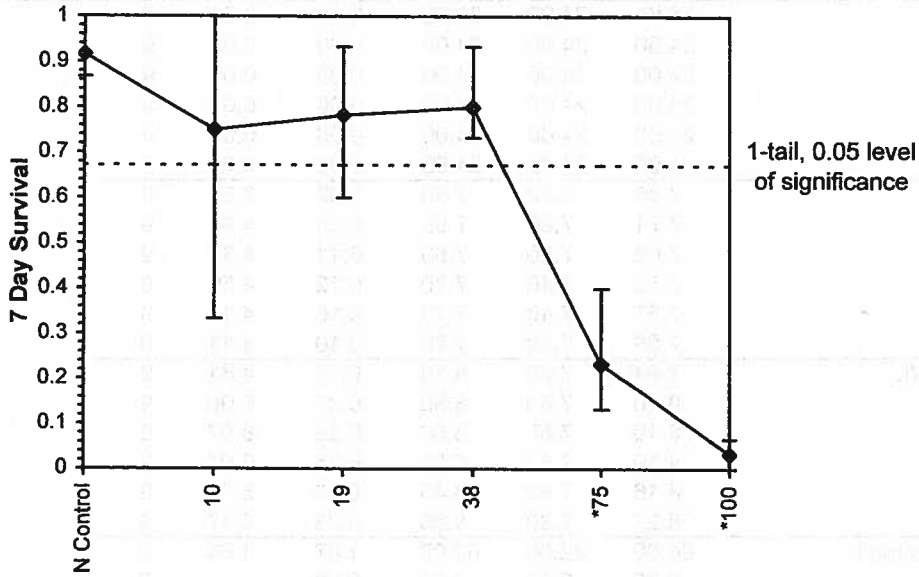
* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 1/21/2009 Test ID: FHD012109 Sample ID: REF-Ref Toxicant
End Date: 1/29/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 1/21/2009 Protocol: EPAA 85-EPA Acute Test Species: PP-Pimephales promelas
Comments: Standard Toxicant

Dose-Response Plot



8 Day Teratogenicity

Start Date: 1/21/2009	Test ID: FHD012109	Sample ID: REF-Ref Toxicant
End Date: 1/29/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 1/21/2009	Protocol: EPAA 85-EPA Acute	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.61	24.00	26.00	0.93	3.91	9
10		24.00	24.00	24.00	0.00	0.00	9
19		24.00	24.00	24.00	0.00	0.00	9
38		24.00	24.00	24.00	0.00	0.00	9
75		24.00	24.00	24.00	0.00	0.00	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	7.89	7.80	7.90	0.03	2.31	9
10		7.71	7.50	7.90	0.15	4.94	9
19		7.63	7.50	7.80	0.11	4.38	9
38		7.59	7.40	7.70	0.12	4.50	9
75		7.57	7.40	7.70	0.10	4.18	9
100		7.58	7.40	7.70	0.10	4.11	9
N Control	D. O. mg/L	7.84	7.60	8.10	0.14	4.81	9
10		8.10	7.80	8.60	0.31	6.90	9
19		8.19	7.80	8.50	0.25	6.07	9
38		8.19	7.80	8.50	0.25	6.07	9
75		8.16	7.80	8.40	0.19	5.31	9
100		8.27	7.80	8.60	0.26	6.17	9
N Control	Hardness mg/L	84.00	82.00	88.00	1.87	1.63	9
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		86.89	86.00	90.00	1.76	1.53	9
N Control	Cond-umhos	350.78	327.00	392.00	21.32	1.32	9
10		330.78	316.00	354.00	13.94	1.13	9
19		317.67	305.00	329.00	8.72	0.93	9
38		320.67	309.00	329.00	6.38	0.79	9
75		317.67	306.00	329.00	6.50	0.80	9
100		317.89	307.00	330.00	6.86	0.82	9
N Control	Alkalinity mg/L	60.11	57.00	61.00	1.76	2.21	9
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		60.11	57.00	61.00	1.76	2.21	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*.

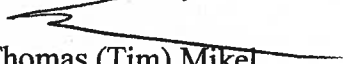
Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Final Effluent to Mojave River Grab
DATE RECEIVED:	19 May - 09
ABC LAB. NO.:	VIC0509.293

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	<100.00 %
	TU _c	=	> 1.00
	LC25	=	32.61 %
	LC50	=	>100.00 %
TERATOGENICITY	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	32.61 %
	LC50	=	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.8000	0.4000	0.3333	0.6000

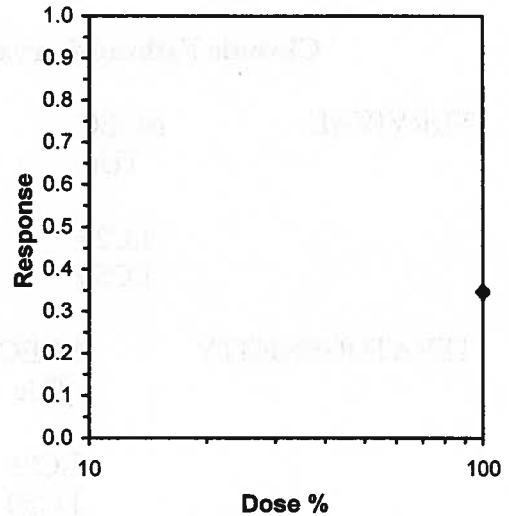
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000
*100	0.5333	0.6531	0.8234	0.6155	1.1071	26.876	4	2.213	1.940	0.2874	0.5333	0.6531

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.84562	0.749	0.83728	-0.9533						
F-Test indicates equal variances (p = 0.85)	1.26209	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.25592	0.30685	0.21496	0.04388	0.06884	1, 6

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	1.354			
IC10*	3.989			
IC15*	8.849			
IC20*	17.508			
IC25*	32.614			
IC40	>100			
IC50	>100			

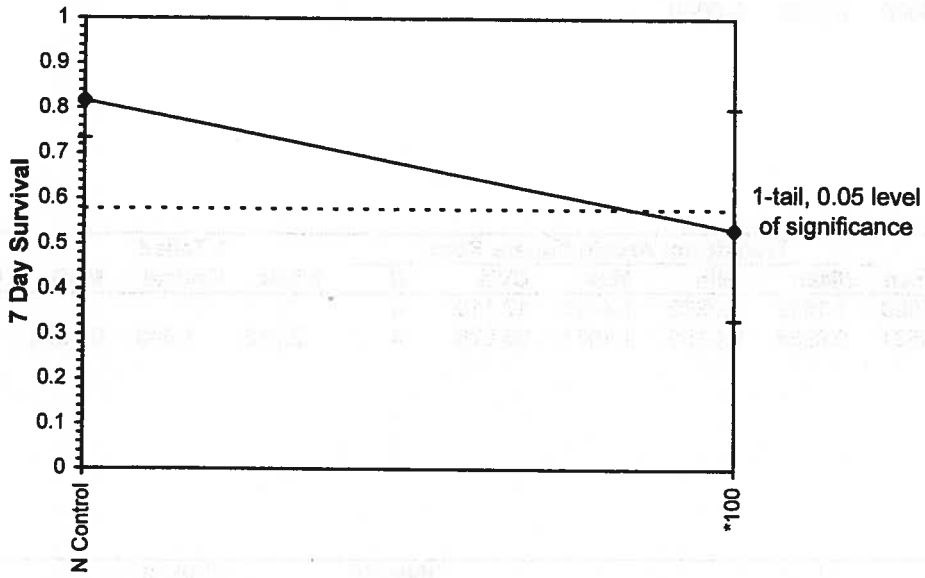
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509293 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent

Dose-Response Plot



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.8000	0.4000	0.3333	0.6000

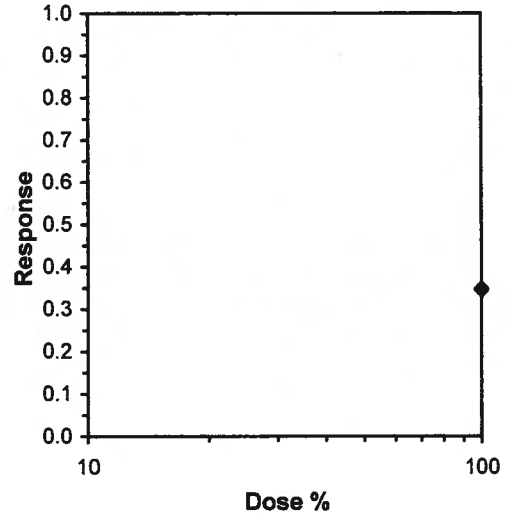
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000	
*100	0.5333	0.6531	0.8234	0.6155	1.1071	26.876	4	2.213	1.940	0.2874	0.5333	0.6531	

Auxiliary Tests		Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)		0.84562	0.749	0.83728	-0.9533						
F-Test indicates equal variances (p = 0.85)		1.26209	47.4683								
Hypothesis Test (1-tail, 0.05)		NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnnett's Test		<100	100			0.25592	0.30685	0.21496	0.04388	0.06884	1, 6
Treatments vs N Control											

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	1.354			
IC10*	3.989			
IC15*	8.849			
IC20*	17.508			
IC25*	32.614			
IC40	>100			
IC50	>100			

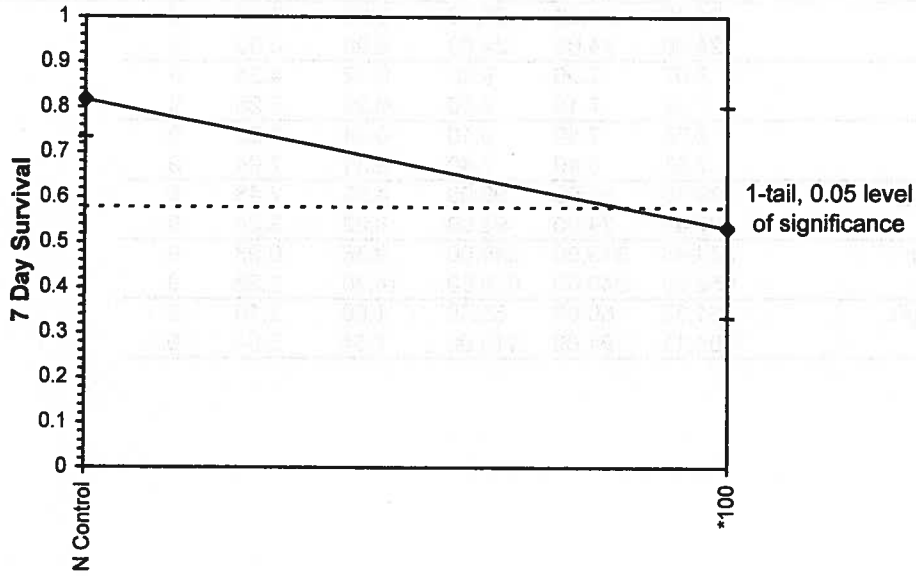
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8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Dose-Response Plot



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509293	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.49	24.00	25.50	0.60	3.17	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	8.07	7.90	8.20	0.12	4.34	9
100		7.42	7.10	7.80	0.29	7.26	9
N Control	DO mg/L	7.76	7.40	8.10	0.24	6.25	9
100		7.03	6.40	7.40	0.31	7.94	9
N Control	Hardness mg/L	89.56	80.00	99.00	4.93	2.48	9
100		87.44	74.00	93.00	8.03	3.24	9
N Control	Cond umhos	334.44	319.00	349.00	9.58	0.93	9
100		652.78	640.00	676.00	14.30	0.58	9
N Control	Alkalinity mg/L	61.33	60.00	65.00	1.80	2.19	9
100		104.11	91.00	110.00	7.54	2.64	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

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Dear Ms. Cloutier:


We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT: Victor Valley WRA
SAMPLE I.D.: Upstream Mojave River
DATE RECEIVED: 19 May - 09
ABC LAB. NO.: VIC0509.294

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	<100.00 %
	TU _c	=	> 1.00
	LC25	=	15.81 %
	LC50	=	>100.00 %
TERATOGENICITY	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	15.81 %
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Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009	Test ID: VIC0509294	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.6667	0.0667	0.5333	0.5333

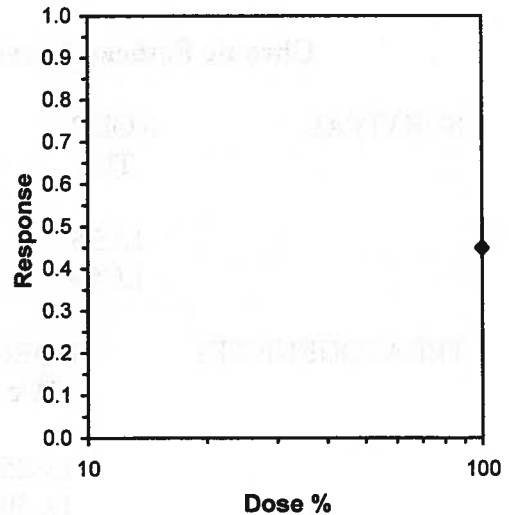
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000	
*100	0.4500	0.5510	0.7135	0.2612	0.9553	43.217	4	2.392	1.940	0.3549	0.4500	0.5510	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93545	0.749	-0.7687	0.62772						
F-Test indicates equal variances (p = 0.48)	2.45061	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnnett's Test Treatments vs N Control	<100	100			0.32315	0.38746	0.38317	0.06694	0.05384	1, 6

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	0.988	1.397	0.136	4.001
IC10*	2.634	2.770	0.060	16.197
IC15*	5.273	7.387	0.000	50.285
IC20*	9.409			3.1923
IC25*	15.806			
IC40*	64.206			
IC50	>100			

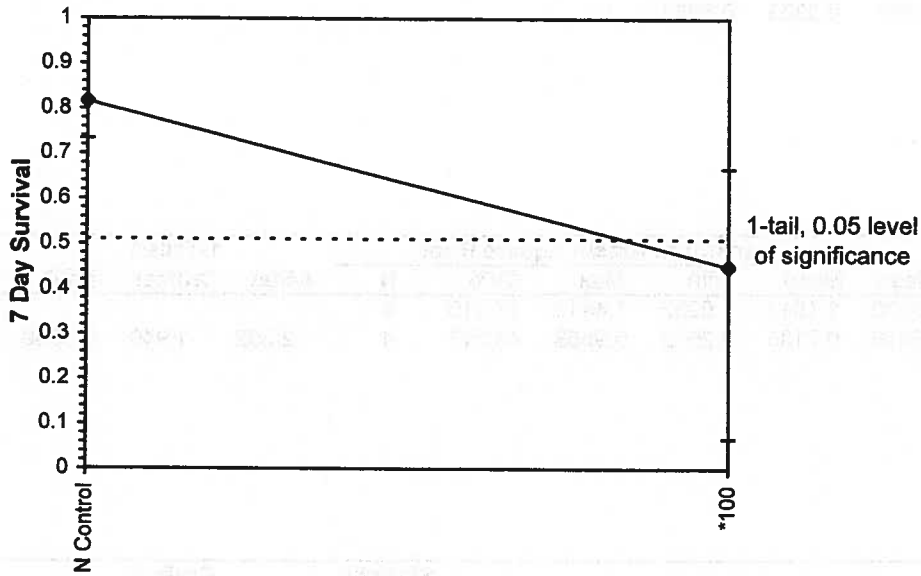
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Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509294 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River

Dose-Response Plot



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509294	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.6667	0.0667	0.5333	0.5333

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000	
*100	0.4500	0.5510	0.7135	0.2612	0.9553	43.217	4	2.392	1.940	0.3549	0.4500	0.5510	

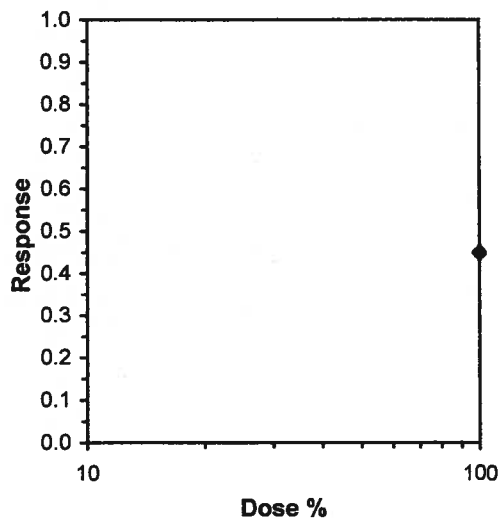
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93545	0.749	-0.7687	0.62772
F-Test indicates equal variances (p = 0.48)	2.45061	47.4683		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs N Control	<100	100			0.32315	0.38746	0.38317	0.06694	0.05384	1, 6

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)		Skew
IC05*	0.988	1.397	0.136	4.001	11.5751
IC10*	2.634	2.770	0.060	16.197	4.6252
IC15*	5.273	7.387	0.000	50.285	3.1923
IC20*	9.409				
IC25*	15.806				
IC40*	64.206				
IC50	>100				

* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 5/19/2009

Test ID: VIC0509294

Sample ID: CA0000000

End Date: 5/27/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

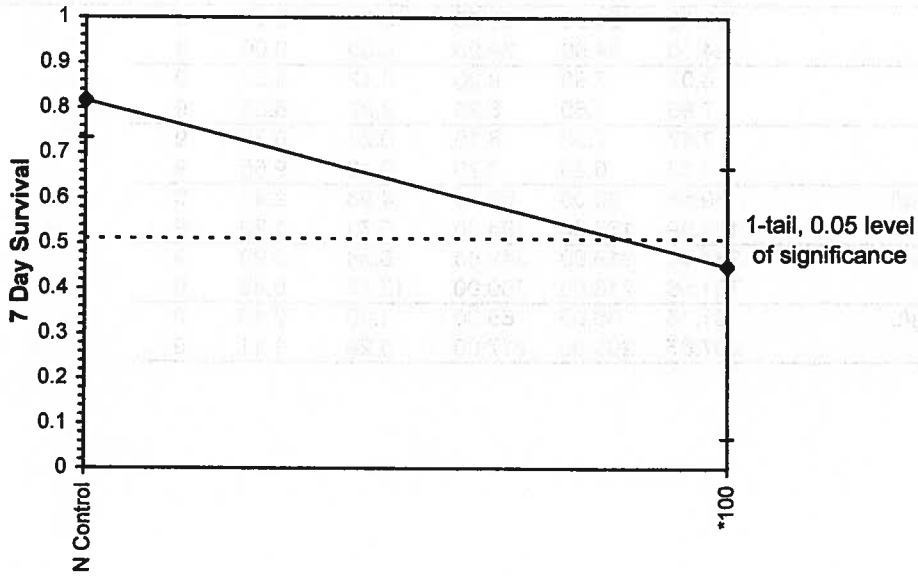
Sample Date: 5/18/2009

Protocol: EPA-821-R-02-013

Test Species: PP-Pimephales promelas

Comments: Upstream Mojave River

Dose-Response Plot

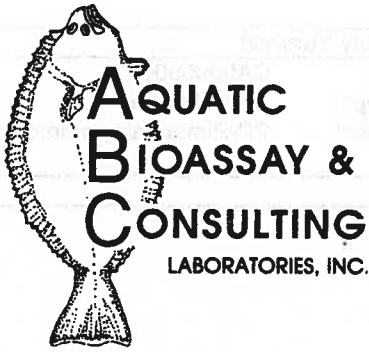


8 Day Teratogenicity

Start Date: 5/19/2009 Test ID: VIC0509294 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream Mojave River

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.50	24.00	25.50	0.59	3.14	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	8.07	7.90	8.20	0.12	4.34	9
100		7.86	7.60	8.20	0.22	6.03	9
N Control	DO mg/L	7.67	7.30	8.10	0.24	6.39	9
100		7.13	6.50	7.70	0.46	9.55	9
N Control	Hardness mg/L	89.56	80.00	99.00	4.93	2.48	9
100		184.89	182.00	195.00	5.73	1.29	9
N Control	Cond umhos	334.44	319.00	349.00	9.58	0.93	9
100		731.56	716.00	750.00	12.18	0.48	9
N Control	Alkalinity mg/L	61.33	60.00	65.00	1.80	2.19	9
100		207.67	205.00	217.00	5.29	1.11	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 9, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-013*.

Results were as follows:

CLIENT:	Victor Valley WRA
SAMPLE I.D.:	Downstream Mojave River
DATE RECEIVED:	19 May - 09
ABC LAB. NO.:	VIC0509.295

Chronic Fathead Larvae Survival and Teratogenicity Bioassay

SURVIVAL	NOEC	=	<100.00 %
	TU _c	=	> 1.00
	LC25	=	5.74 %
	LC50	=	30.03 %
TERATOGENICITY	NOEC	=	<100.00 %
	TU _c	=	>1.00
	LC25	=	5.74 %
	LC50	=	30.03 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.3333	0.2667	0.2667	0.2000

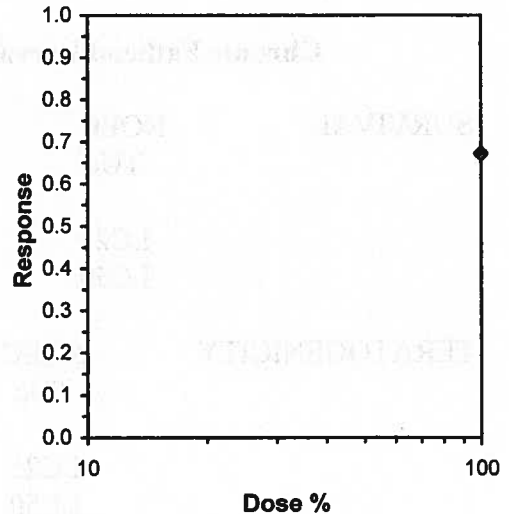
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000
*100	0.2667	0.3265	0.5411	0.4636	0.6155	11.460	4	5.909	1.940	0.2003	0.2667	0.3265

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.84527	0.749	1.58493	2.91622						
F-Test indicates equal variances (p = 0.09)	10.09	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.17155	0.20568	0.74444	0.02132	0.00105	1, 6
Treatments vs N Control										

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	0.592	1.889	0.336 2.110	7.9743
IC10*	1.393	2.641	0.776 4.597	7.8580
IC15*	2.462	3.211	1.358 7.437	7.7103
IC20*	3.877	3.684	2.135 10.638	7.5249
IC25*	5.743	4.088	3.179 14.218	7.2779
IC40*	15.869	5.127	9.305 30.650	5.1754
IC50*	30.028	7.040	16.753 66.464	1.7340

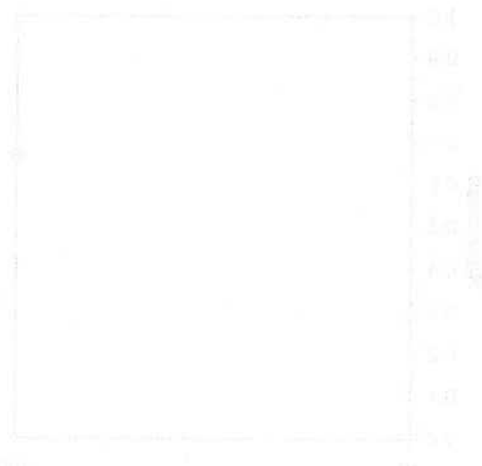
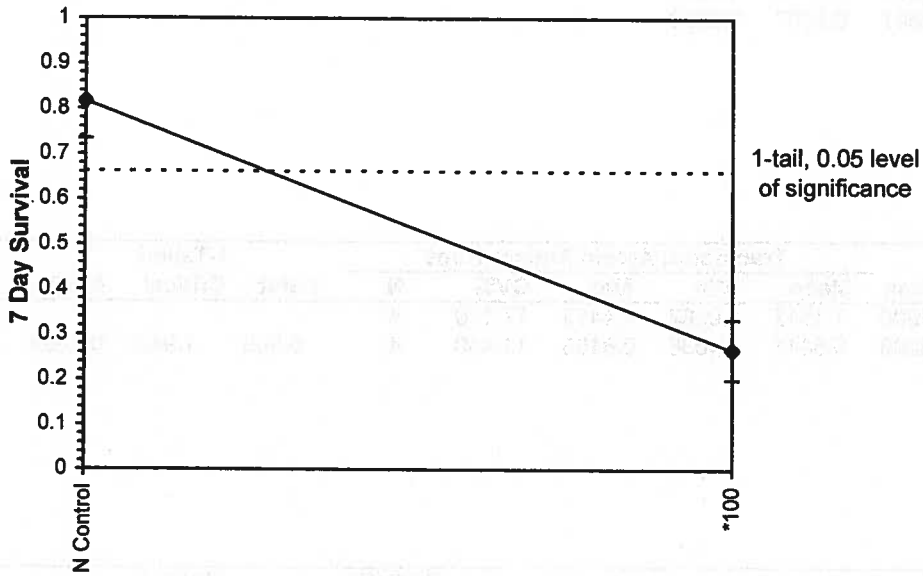
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009 Test ID: VIC0509295 Sample ID: CA0000000
End Date: 5/27/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 5/18/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River

Dose-Response Plot



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
100	0.3333	0.2667	0.2667	0.2000

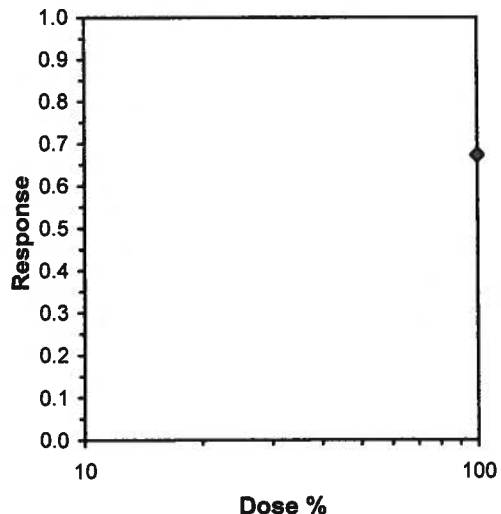
Conc-%	Transform: Arcsin Square Root							t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N				Mean	N-Mean
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8167	1.0000
*100	0.2667	0.3265	0.5411	0.4636	0.6155	11.460	4	5.909	1.940	0.2003	0.2667	0.3265

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.84527	0.749	1.58493	2.91622						
F-Test indicates equal variances (p = 0.09)	10.09	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.17155	0.20568	0.74444	0.02132	0.00105	1, 6
Treatments vs N Control										

Log-Logit Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)		Skew
IC05*	0.592	1.889	0.336	2.110	7.9743
IC10*	1.393	2.641	0.776	4.597	7.8580
IC15*	2.462	3.211	1.358	7.437	7.7103
IC20*	3.877	3.684	2.135	10.638	7.5249
IC25*	5.743	4.088	3.179	14.218	7.2779
IC40*	15.869	5.127	9.305	30.650	5.1754
IC50*	30.028	7.040	16.753	66.464	1.7340

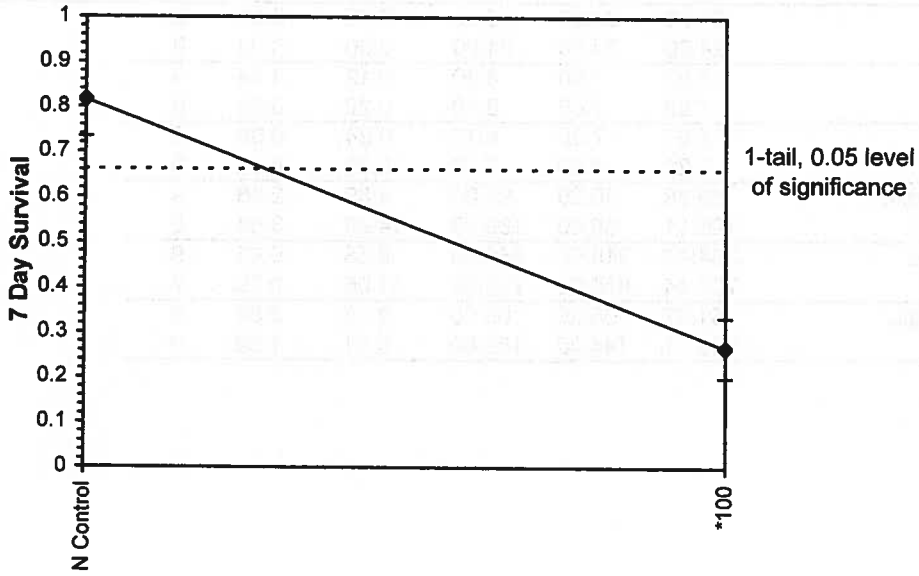
* indicates IC estimate less than the lowest concentration



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Dose-Response Plot

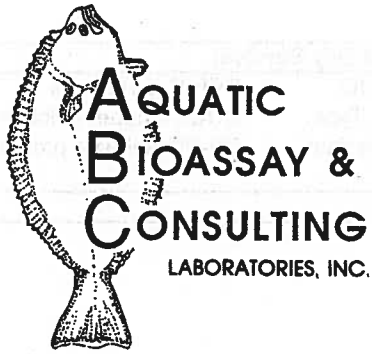


8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: VIC0509295	Sample ID: CA0000000
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/18/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.50	24.00	25.50	0.59	3.14	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control	pH	8.07	7.90	8.20	0.12	4.34	9
100		7.83	7.60	8.10	0.22	5.96	9
N Control	DO mg/L	7.67	7.30	8.10	0.24	6.39	9
100		7.22	6.60	7.70	0.35	8.14	9
N Control	Hardness mg/L	89.78	80.00	99.00	4.89	2.46	9
100		106.11	95.00	130.00	14.95	3.64	9
N Control	Cond umhos	334.44	319.00	349.00	9.58	0.93	9
100		707.44	630.00	728.00	31.06	0.79	9
N Control	Alkalinity mg/L	61.67	60.00	65.00	2.18	2.39	9
100		149.11	144.00	158.00	6.31	1.69	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

**CHRONIC FATHEAD MINNOW SURVIVAL AND
TERATOGENICITY BIOASSAY**

DATE: 19 May - 09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

IC25 = 31.61 ug/l

IC50 = 46.68 ug/l


ENDPOINT: TERATOGENICITY

NOEC = 19.00 ug/l

IC25 = 31.61 ug/l

IC50 = 46.68 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-8 Day Survival

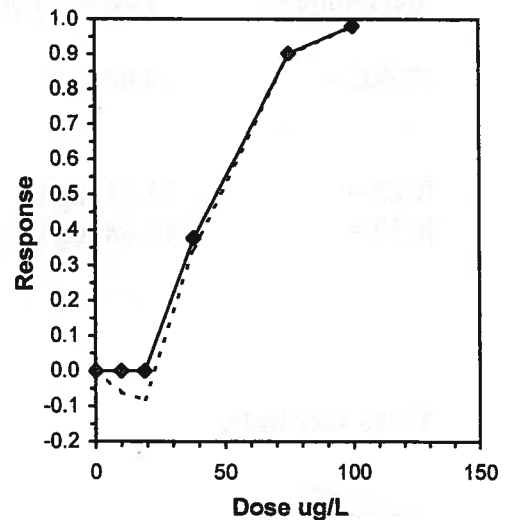
Start Date: 5/19/2009	Test ID: FHD051909	Sample ID: REF-Ref Toxicant
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/19/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
10	0.8667	0.7333	1.0000	0.8667
19	0.9333	0.8667	0.7333	1.0000
38	0.2667	0.8000	0.4667	0.6000
75	0.0667	0.2000	0.0667	0.0000
100	0.0000	0.0667	0.0000	0.0000

Conc-ug/L	Transform: Arcsin Square Root							t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N				Mean	N-Mean
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8556	1.0000
10	0.8667	1.0612	1.2159	1.0282	1.4413	13.988	4	-0.531	2.410	0.2934	0.8556	1.0000
19	0.8833	1.0816	1.2440	1.0282	1.4413	14.080	4	-0.762	2.410	0.2934	0.8556	1.0000
*38	0.5333	0.6531	0.8220	0.5426	1.1071	28.820	4	2.704	2.410	0.2934	0.5333	0.6234
*75	0.0833	0.1020	0.2789	0.1295	0.4636	49.471	4	7.165	2.410	0.2934	0.0833	0.0974
*100	0.0167	0.0204	0.1624	0.1295	0.2612	40.551	4	8.121	2.410	0.2934	0.0167	0.0195

Auxiliary Tests					Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.94866	0.884	0.38085	-0.3317						
Bartlett's Test indicates equal variances (p = 0.57)					3.84871	15.0863								
Hypothesis Test (1-tail, 0.05)					NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test					19	38	26.8701		0.26191	0.31403	0.93693	0.02965	2.6E-08	5, 18
Treatments vs N Control														

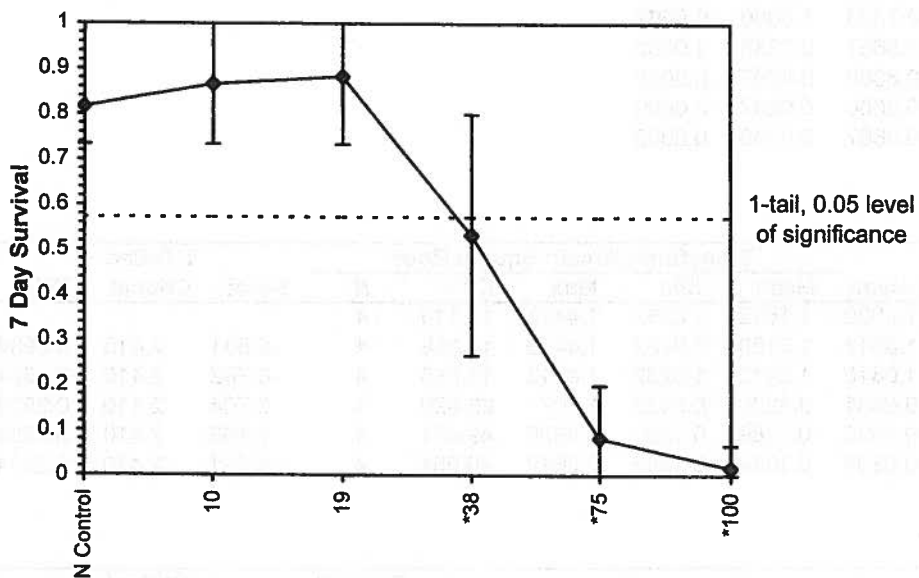
Linear Interpolation (200 Resamples)					
Point	ug/L	SD	95% CL(Exp)		Skew
IC05	21.522	3.702	0.000	27.359	-2.7867
IC10	24.045	3.363	16.889	35.781	-0.7518
IC15	26.567	3.705	20.544	44.998	0.8186
IC20	29.090	4.005	22.100	47.625	1.1136
IC25	31.612	4.371	23.462	49.946	0.8194
IC40	39.644	5.339	26.560	57.154	0.1714
IC50	46.679	5.861	27.632	60.893	-0.3605



Larval Fish Growth and Survival Test-8 Day Survival

Start Date: 5/19/2009 Test ID: FHD051909 Sample ID: REF-Ref Toxicant
End Date: 5/27/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 5/19/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Standard Toxicant

Dose-Response Plot



8 Day Teratogenicity

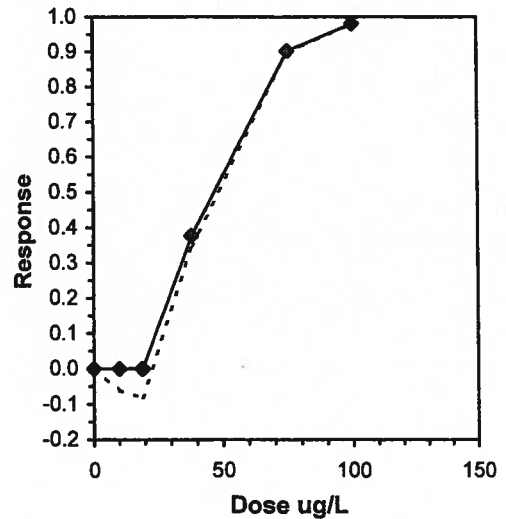
Start Date: 5/19/2009	Test ID: FHD051909	Sample ID: REF-Ref Toxicant
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/19/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4
N Control	0.7333	0.8000	0.7333	1.0000
10	0.8667	0.7333	1.0000	0.8667
19	0.9333	0.8667	0.7333	1.0000
38	0.2667	0.8000	0.4667	0.6000
75	0.0667	0.2000	0.0667	0.0000
100	0.0000	0.0667	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.8167	1.0000	1.1512	1.0282	1.4413	17.110	4				0.8556	1.0000
10	0.8667	1.0612	1.2159	1.0282	1.4413	13.988	4	-0.531	2.410	0.2934	0.8556	1.0000
19	0.8833	1.0816	1.2440	1.0282	1.4413	14.080	4	-0.762	2.410	0.2934	0.8556	1.0000
*38	0.5333	0.6531	0.8220	0.5426	1.1071	28.820	4	2.704	2.410	0.2934	0.5333	0.6234
*75	0.0833	0.1020	0.2789	0.1295	0.4636	49.471	4	7.165	2.410	0.2934	0.0833	0.0974
*100	0.0167	0.0204	0.1624	0.1295	0.2612	40.551	4	8.121	2.410	0.2934	0.0167	0.0195

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94866	0.884	0.38085	-0.3317						
Bartlett's Test indicates equal variances (p = 0.57)	3.84871	15.0863								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs N Control	19	38	26.8701		0.26191	0.31403	0.93693	0.02965	2.6E-08	5, 18

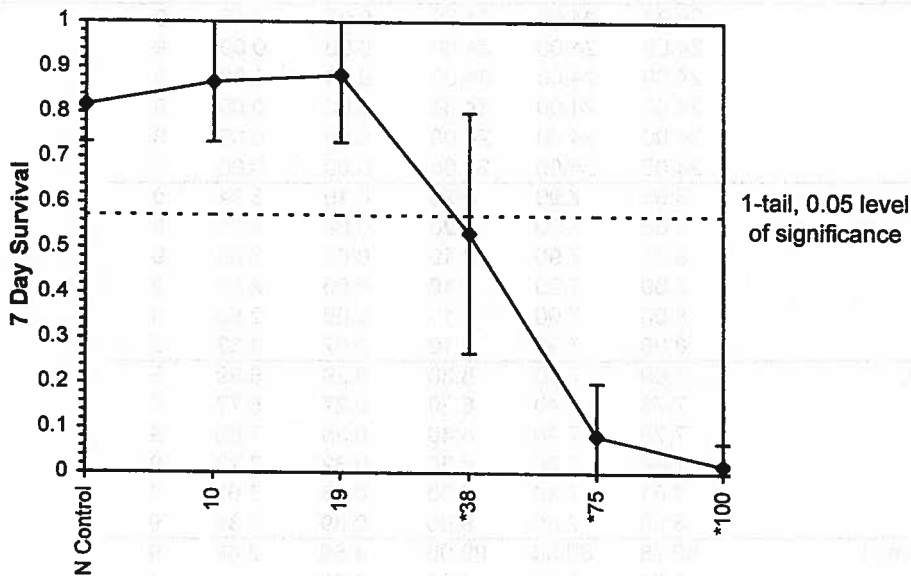
Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL(Exp)	Skew	
IC05	21.522	3.702	0.000	27.359	-2.7867
IC10	24.045	3.363	16.889	35.781	-0.7518
IC15	26.567	3.705	20.544	44.998	0.8186
IC20	29.090	4.005	22.100	47.625	1.1136
IC25	31.612	4.371	23.462	49.946	0.8194
IC40	39.644	5.339	26.560	57.154	0.1714
IC50	46.679	5.861	27.632	60.893	-0.3605



8 Day Teratogenicity

Start Date: 5/19/2009 Test ID: FHD051909 Sample ID: REF-Ref Toxicant
End Date: 5/27/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 5/19/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Standard Toxicant

Dose-Response Plot



8 Day Teratogenicity

Start Date: 5/19/2009	Test ID: FHD051909	Sample ID: REF-Ref Toxicant
End Date: 5/27/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/19/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.23	24.00	24.70	0.27	2.16	9
10		24.00	24.00	24.00	0.00	0.00	9
19		24.00	24.00	24.00	0.00	0.00	9
38		24.00	24.00	24.00	0.00	0.00	9
75		24.00	24.00	24.00	0.00	0.00	9
100		24.00	24.00	24.00	0.00	0.00	9
N Control		pH	8.03	7.90	8.20	0.10	3.94
10	8.03		7.90	8.20	0.09	3.66	9
19	8.01		7.90	8.10	0.06	3.06	9
38	8.00		7.90	8.10	0.05	2.80	9
75	8.00		7.90	8.10	0.05	2.80	9
100	8.00		7.90	8.10	0.07	3.32	9
N Control	D. O. mg/L		7.69	7.30	8.30	0.29	6.99
10		7.73	7.40	8.30	0.27	6.77	9
19		7.78	7.10	8.40	0.35	7.60	9
38		7.84	7.30	8.30	0.32	7.22	9
75		7.91	7.40	8.50	0.36	7.61	9
100		8.00	7.40	8.60	0.39	7.84	9
N Control		Hardness mg/L	89.78	80.00	99.00	4.89	2.46
10	0.00		0.00	0.00	0.00		0
19	0.00		0.00	0.00	0.00		0
38	0.00		0.00	0.00	0.00		0
75	0.00		0.00	0.00	0.00		0
100	86.00		86.00	86.00	0.00	0.00	9
N Control	Cond-umhos		334.44	319.00	349.00	9.58	0.93
10		328.78	317.00	344.00	9.32	0.93	9
19		327.33	318.00	334.00	5.22	0.70	9
38		324.56	312.00	334.00	6.58	0.79	9
75		321.44	309.00	330.00	7.55	0.85	9
100		326.11	311.00	350.00	10.96	1.02	9
N Control		Alkalinity mg/L	61.67	60.00	65.00	2.18	2.39
10	0.00		0.00	0.00	0.00		0
19	0.00		0.00	0.00	0.00		0
38	0.00		0.00	0.00	0.00		0
75	0.00		0.00	0.00	0.00		0
100	62.00		62.00	62.00	0.00	0.00	9



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 30, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

CLIENT: Victor Valley WRA
SAMPLE I.D.: Final Effluent to Mojave River Grab
DATE RECEIVED: 16 June - 09
ABC LAB. NO.: VIC0609.195

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC = <100.00 %
TUc = >1.00
IC25 = >100.00 %
IC50 = >100.00 %

GROWTH NOEC = <100.00 %
TUc = >1.00
IC25 = 55.38 %
IC50 = >100.00 %

Yours very truly,



Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4
N Control	0.8667	0.8000	1.0000	0.8667
100	0.7333	0.4667	0.8667	0.6667

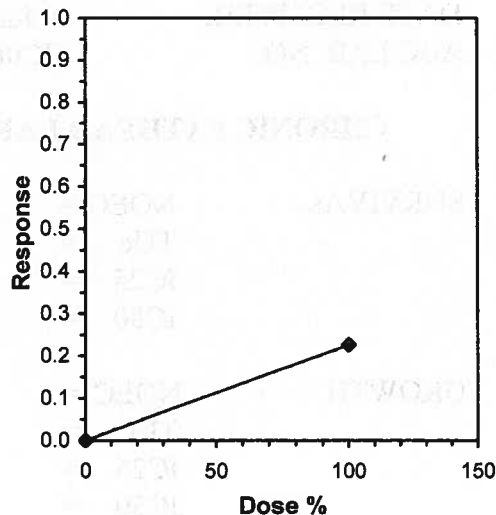
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.8833	1.0000	1.2356	1.1071	1.4413	11.616	4				0.8833	1.0000
*100	0.6833	0.7736	0.9831	0.7520	1.1970	18.751	4	2.161	1.940	0.2266	0.6833	0.7736

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92987	0.749	0.21197	-0.504						
F-Test indicates equal variances (p = 0.69)	1.64944	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.17558	0.19688	0.12751	0.02729	0.07393	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	22.083			
IC10*	44.167			
IC15*	66.250			
IC20*	88.333			
IC25	>100			
IC40	>100			
IC50	>100			

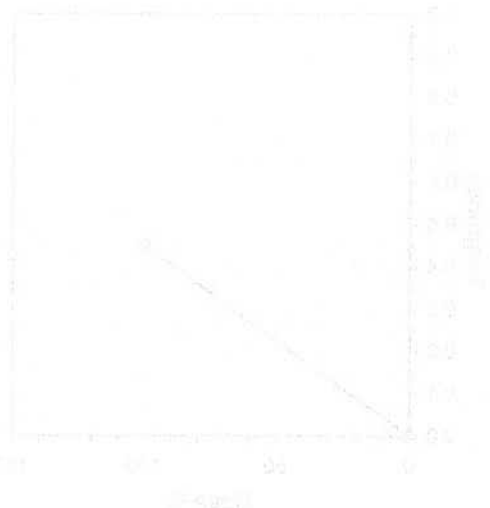
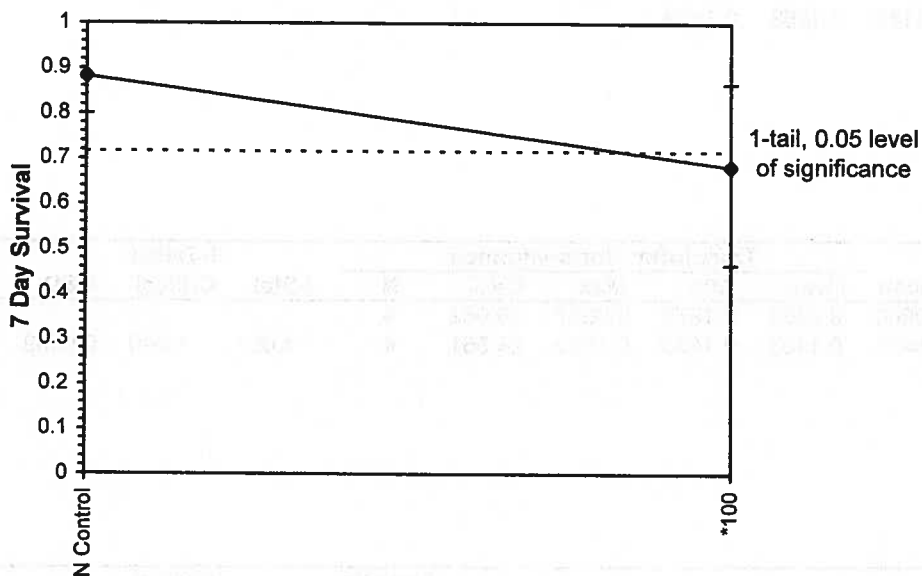
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4
N Control	0.3027	0.1973	0.2807	0.2427
100	0.1493	0.1133	0.1853	0.1133

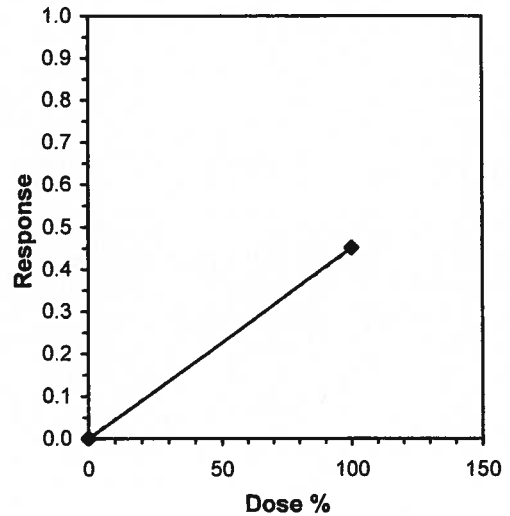
Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.2558	1.0000	0.2558	0.1973	0.3027	18.062	4				0.2558	1.0000	
*100	0.1403	0.5485	0.1403	0.1133	0.1853	24.561	4	4.007	1.940	0.0559	0.1403	0.5485	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94	0.749	-0.1133	-1.1641						
F-Test indicates equal variances (p = 0.64)	1.79733	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			0.05592	0.21857	0.02668	0.00166	0.00706	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)		Skew
IC05*	11.075	1.953	6.640	23.777	1.4565
IC10*	22.150	3.906	13.280	47.554	1.4565
IC15*	33.225	5.859	19.921	71.331	1.4565
IC20*	44.300	7.812	26.561	95.107	1.4565
IC25*	55.375	9.765	33.201	118.884	1.4565
IC40*	88.600				
IC50	>100				

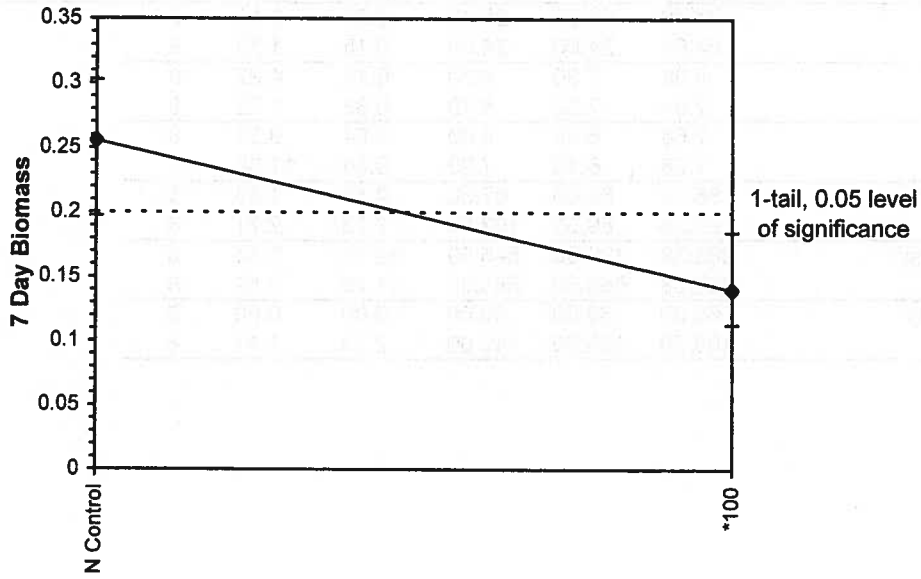
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Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009 Test ID: VIC0609195 Sample ID: CA000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609195	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.84	7.30	8.10	0.32	7.22	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		7.28	6.10	7.90	0.69	11.39	8
N Control	Hardness mg/L	86.13	80.00	87.00	2.47	1.83	8
100		99.25	89.00	108.00	7.23	2.71	8
N Control	Alkalinity mg/L	386.38	323.00	545.00	68.59	2.14	8
100		668.38	656.00	685.00	11.78	0.51	8
N Control	Conductivity	60.00	60.00	60.00	0.00	0.00	8
100		108.50	106.00	112.00	2.33	1.41	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 30, 2009

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CLIENT: Victor Valley WRA
SAMPLE I.D.: Upstream Mojave River
DATE RECEIVED: 16 June - 09
ABC LAB. NO.: VIC0609.196

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

GROWTH	NOEC =	100.00 %
	TU _c =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream to Mojave River		

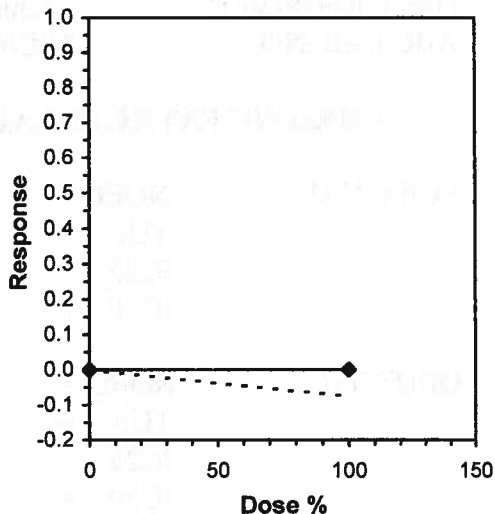
Conc-%	1	2	3	4
N Control	0.8667	0.8000	1.0000	0.8667
100	0.8667	0.9333	1.0000	1.0000

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	1-Tailed			Isotonic	
			Mean	Min	Max	CV%	t-Stat		Critical	MSD	Mean	N-Mean	
N Control	0.8833	1.0000	1.2356	1.1071	1.4413	11.616	4					0.9167	1.0000
100	0.9500	1.0755	1.3473	1.1970	1.4413	8.750	4	-1.203	1.940	0.1802		0.9167	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92275	0.749	0.49589	-0.6082						
F-Test indicates equal variances (p = 0.75)	1.48243	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.13469	0.15103	0.02496	0.01725	0.27436	1, 6

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009

Test ID: VIC0609196

Sample ID: CA000000

End Date: 6/23/2009

Lab ID: CAABC

Sample Type: EFF1-POTW

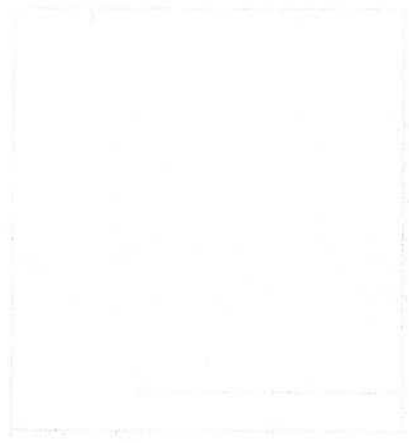
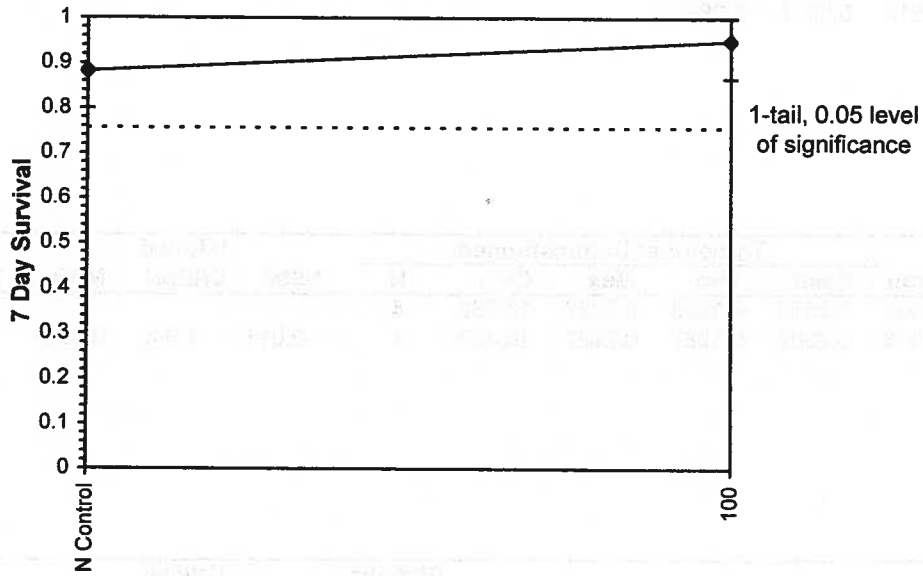
Sample Date: 6/15/2009

Protocol: EPA-821-R-02-013

Test Species: PP-Pimephales promelas

Comments: Upstream to Mojave River

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream to Mojave River		

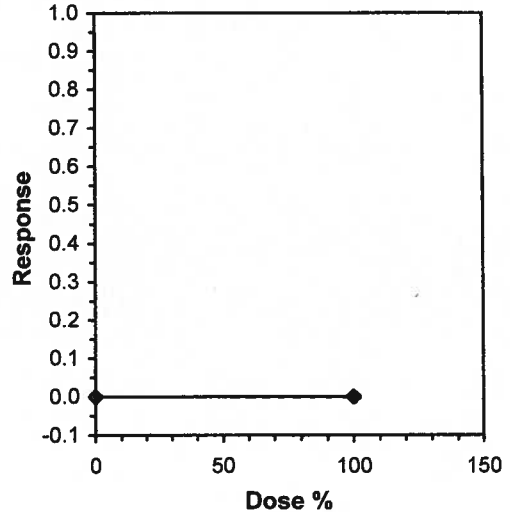
Conc-%	1	2	3	4
N Control	0.3027	0.1973	0.2807	0.2427
100	0.1987	0.2513	0.2927	0.2820

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.2558	1.0000	0.2558	0.1973	0.3027	18.062	4				0.2560	1.0000	
100	0.2562	1.0013	0.2562	0.1987	0.2927	16.453	4	-0.011	1.940	0.0607	0.2560	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.88574	0.749	-0.5794	-1.2297						
F-Test indicates equal variances (p = 0.88)	1.20199	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.06067	0.23713	2.2E-07	0.00196	0.99184	1, 6

Linear Interpolation (200 Resamples)

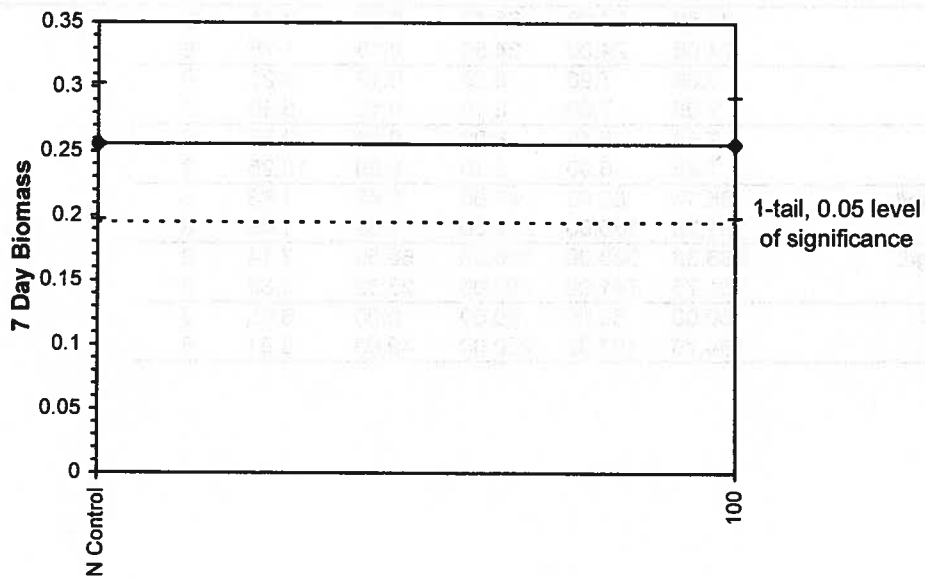
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009 Test ID: VIC0609196 Sample ID: CA000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Upstream to Mojave River

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609196	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Upstream to Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.95	7.60	8.10	0.18	5.30	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		7.48	6.30	8.10	0.59	10.25	8
N Control	Hardness mg/L	86.13	80.00	87.00	2.47	1.83	8
100		191.75	185.00	202.00	7.69	1.45	8
N Control	Alkalinity mg/L	386.38	323.00	545.00	68.59	2.14	8
100		761.75	741.00	799.00	23.32	0.63	8
N Control	Conductivity	60.00	60.00	60.00	0.00	0.00	8
100		184.75	107.00	230.00	49.63	3.81	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

June 30, 2009

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DATE RECEIVED: 16 June - 09
ABC LAB. NO.: VIC0609.197

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC = 100.00 %
 TUc = 1.00
 IC25 = >100.00 %
 IC50 = >100.00 %

GROWTH NOEC = 100.00 %
 TUc = 1.00
 IC25 = >100.00 %
 IC50 = >100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	0.8667	0.8000	1.0000	0.8667
100	0.8667	0.8000	0.7333	1.0000

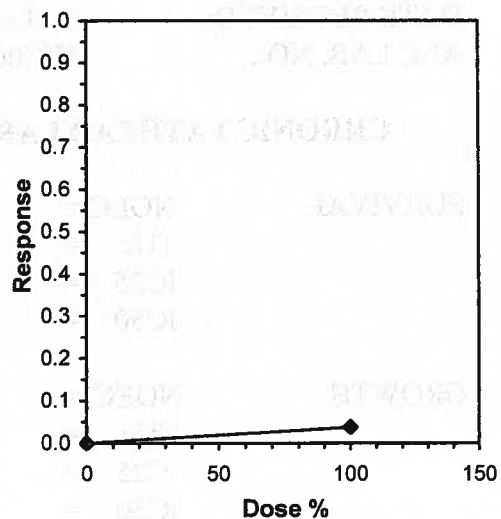
Conc-%	Mean	N-Mean	Transform: Arcsin Square Root				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.8833	1.0000	1.2356	1.1071	1.4413	11.616	4				0.8833	1.0000
100	0.8500	0.9623	1.1934	1.0282	1.4413	15.007	4	0.368	1.940	0.2226	0.8500	0.9623

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.87308	0.749	0.9295	-0.4288
F-Test indicates equal variances (p = 0.72)	1.55696	47.4683		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.17199	0.19286	0.00356	0.02634	0.72563	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

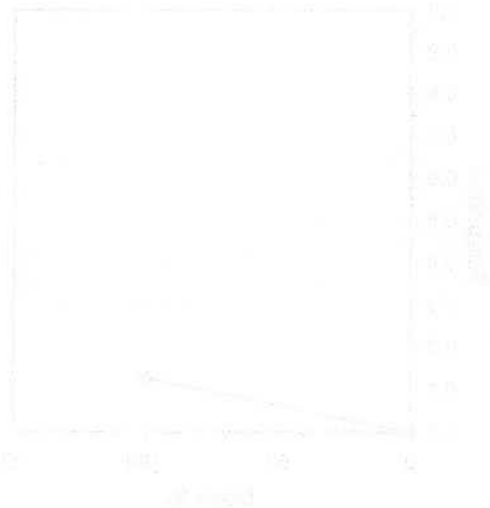
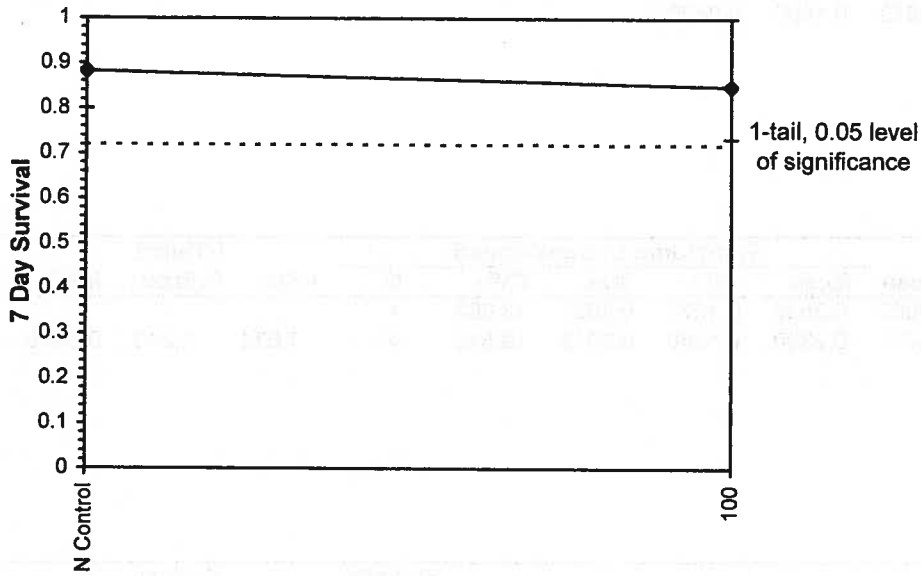
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009 Test ID: VIC0609197 Sample ID: CA000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Conc-%	1	2	3	4
N Control	0.3027	0.1973	0.2807	0.2427
100	0.2407	0.2513	0.1580	0.2420

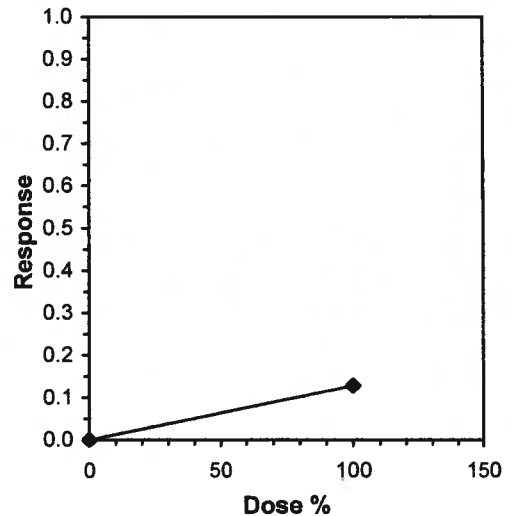
Conc-%	Mean	N-Mean	Transform: Untransformed				N	t-Stat	1-Tailed		Isotonic	
			Mean	Min	Max	CV%			Critical	MSD	Mean	N-Mean
N Control	0.2558	1.0000	0.2558	0.1973	0.3027	18.062	4	1.034	1.940	0.0616	0.2558	1.0000
100	0.2230	0.8717	0.2230	0.1580	0.2513	19.548	4				0.2230	0.8717

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.85691	0.749	-0.8579	-0.8131						
F-Test indicates equal variances (p = 0.93)	1.12363	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.06162	0.24086	0.00216	0.00202	0.34113	1, 6
Treatments vs N Control										

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05*	38.959			
IC10*	77.919			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

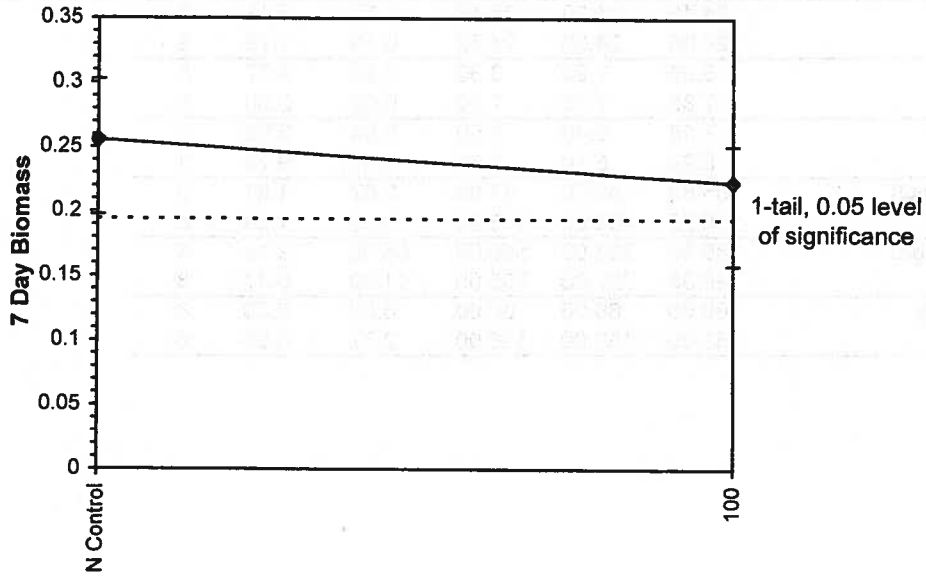
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009 Test ID: VIC0609197 Sample ID: CA000000
End Date: 6/23/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 6/15/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: VIC0609197	Sample ID: CA000000
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 6/15/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Downstream Mojave River		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.40	24.00	25.40	0.58	3.11	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
100		7.85	7.70	7.90	0.08	3.50	8
N Control	DO mg/L	7.68	6.40	8.00	0.54	9.57	8
100		6.94	6.10	7.60	0.46	9.74	8
N Control	Hardness mg/L	85.63	80.00	87.00	2.67	1.91	8
100		110.25	108.00	115.00	3.06	1.59	8
N Control	Alkalinity mg/L	386.38	323.00	545.00	68.59	2.14	8
100		740.38	727.00	755.00	11.99	0.47	8
N Control	Conductivity	60.00	60.00	60.00	0.00	0.00	8
100		153.00	150.00	156.00	2.27	0.98	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 16 June 2009

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 38.00 ug/l

IC25 = 58.97 ug/l

IC50 = 81.25 ug/l

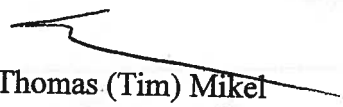
ENDPOINT: GROWTH

NOEC = 38.00 ug/l

IC25 = 39.47 ug/l

IC50 = 63.13 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009	Test ID: FHD061609	Sample ID: REF-Ref Toxicant
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/16/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4
N Control	0.8667	0.8000	1.0000	0.8667
10	0.9333	0.7333	0.9333	0.8667
19	0.8667	0.9333	1.0000	1.0000
38	0.7333	0.8000	0.8000	0.9333
75	0.3333	0.6667	0.6000	0.6667
100	0.0000	0.0000	0.2667	0.1333

Conc-ug/L	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.8833	1.0000	1.2356	1.1071	1.4413	11.616	4				0.9000	1.0000	
10	0.8667	0.9811	1.2111	1.0282	1.3096	10.984	4	0.232	2.410	0.2543	0.9000	1.0000	
19	0.9500	1.0755	1.3473	1.1970	1.4413	8.750	4	-1.059	2.410	0.2543	0.9000	1.0000	
38	0.8167	0.9245	1.1380	1.0282	1.3096	10.573	4	0.925	2.410	0.2543	0.8167	0.9074	
*75	0.5667	0.6415	0.8530	0.6155	0.9553	18.956	4	3.626	2.410	0.2543	0.5667	0.6296	
*100	0.1000	0.1132	0.2938	0.1295	0.5426	68.724	4	8.926	2.410	0.2543	0.1000	0.1111	

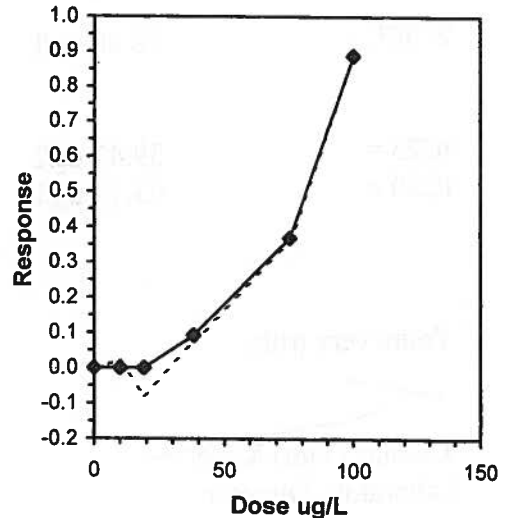
Auxiliary Tests

Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95841	0.884	-0.0014
Bartlett's Test indicates equal variances (p = 0.95)	1.17808	15.0863	-0.8693

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	38	75	53.3854		0.20084	0.22521	0.60719	0.02227	8.3E-08	5, 18
Treatments vs N Control										

Linear Interpolation (200 Resamples)

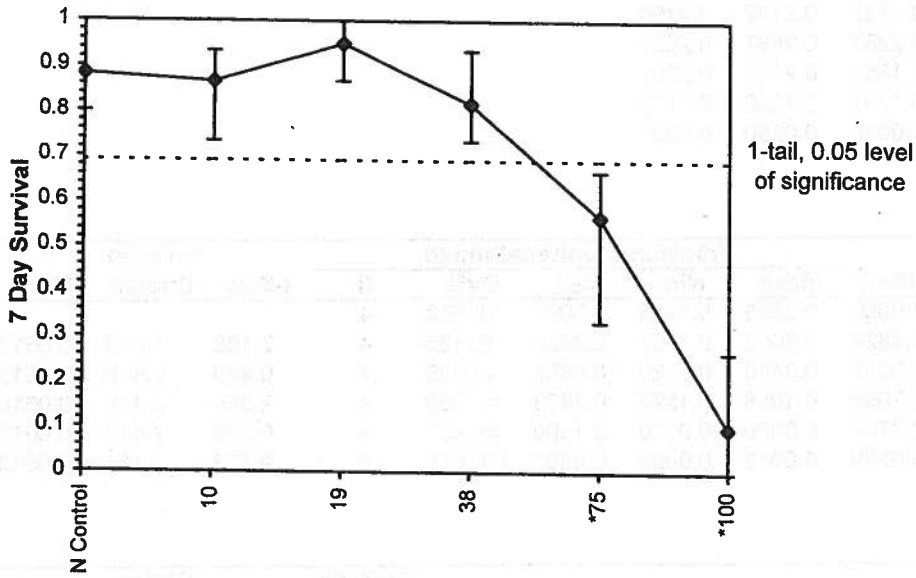
Point	ug/L	SD	95% CL(Exp)		Skew
IC05	29.260	7.559	0.000	51.051	-0.6998
IC10	38.987	6.386	20.579	54.229	-0.6235
IC15	45.647	5.901	28.527	63.183	0.1459
IC20	52.307	6.193	35.325	74.349	0.3865
IC25	58.967	7.207	42.065	82.983	0.2825
IC40	76.429	4.995	55.060	83.790	-0.8927
IC50	81.250	3.134	71.127	87.716	-0.8023



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 6/16/2009 Test ID: FHD061609 Sample ID: REF-Ref Toxicant
End Date: 6/23/2009 Lab ID: CAABC Sample Type: CUCL-Copper chloride
Sample Date: 6/16/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Standard Toxicant

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: FHD061609	Sample ID: REF-Ref Toxicant
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/16/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

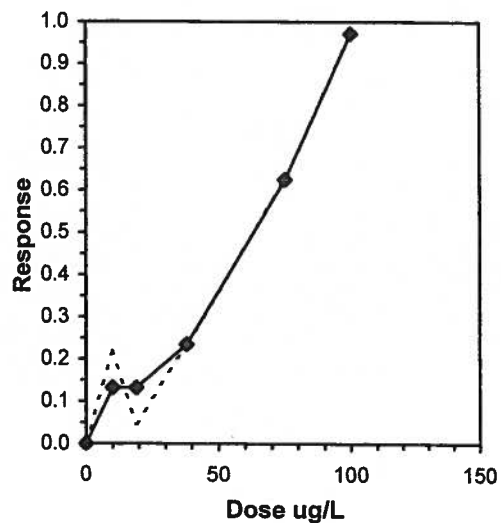
Conc-ug/L	1	2	3	4
N Control	0.3027	0.1973	0.2807	0.2427
10	0.1773	0.1727	0.2147	0.2360
19	0.2020	0.2253	0.2887	0.2600
38	0.1520	0.1853	0.2167	0.2293
75	0.0320	0.1093	0.1300	0.1120
100	0.0000	0.0000	0.0260	0.0027

Conc-ug/L	Transform: Untransformed						N	t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.2558	1.0000	0.2558	0.1973	0.3027	18.062	4				0.2558	1.0000
10	0.2002	0.7824	0.2002	0.1727	0.2360	15.186	4	2.188	2.410	0.0613	0.2221	0.8681
19	0.2440	0.9537	0.2440	0.2020	0.2887	15.630	4	0.465	2.410	0.0613	0.2221	0.8681
38	0.1958	0.7655	0.1958	0.1520	0.2293	17.659	4	2.359	2.410	0.0613	0.1958	0.7655
*75	0.0958	0.3746	0.0958	0.0320	0.1300	45.427	4	6.290	2.410	0.0613	0.0958	0.3746
*100	0.0072	0.0280	0.0072	0.0000	0.0260	176.070	4	9.776	2.410	0.0613	0.0072	0.0280

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.95162	0.884	-0.4443	-0.6768						
Bartlett's Test indicates equal variances ($p = 0.55$)	4.0142	15.0863								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	38	75	53.3854		0.0613	0.23962	0.03709	0.00129	5.6E-08	5, 18
Treatments vs N Control										

Point	Linear Interpolation (200 Resamples)				
	ug/L	SD	95% CL(Exp)		Skew
IC05*	3.790	8.629	0.747	47.208	1.9070
IC10*	7.580	11.415	1.493	59.898	0.9938
IC15	22.348	12.845	0.000	57.659	0.2790
IC20	31.606	11.970	0.000	58.458	-0.4883
IC25	39.465	10.175	0.000	59.836	-0.9783
IC40	53.663	6.425	35.109	75.090	0.0122
IC50	63.129	6.512	47.218	83.709	0.1433

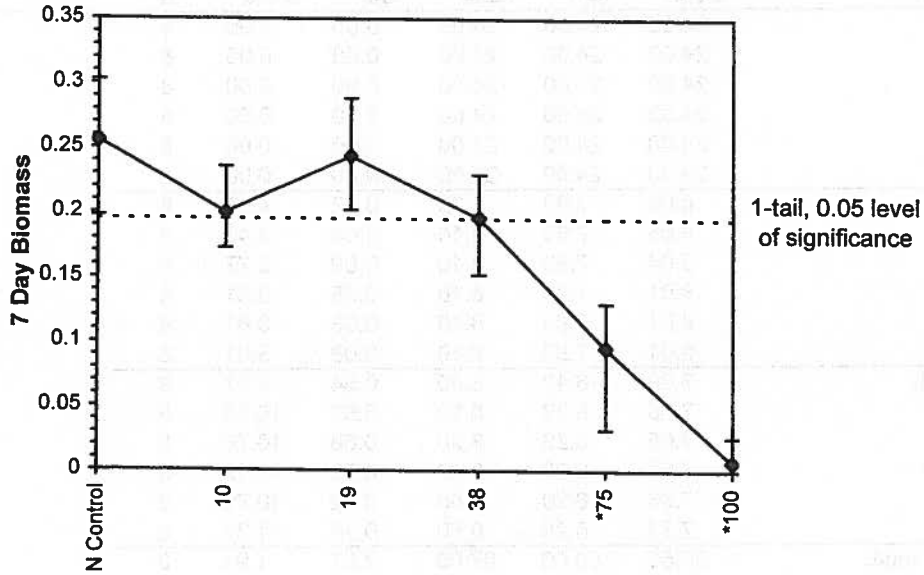
* indicates IC estimate less than the lowest concentration



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: FHD061609	Sample ID: REF-Ref Toxicant
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/16/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

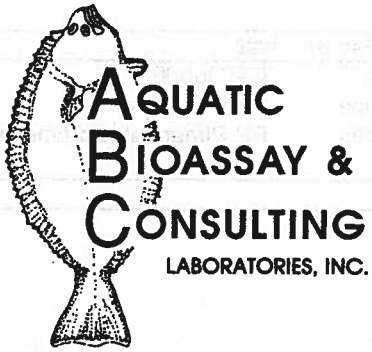
Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 6/16/2009	Test ID: FHD061609	Sample ID: REF-Ref Toxicant
End Date: 6/23/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 6/16/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

		Auxiliary Data Summary					
Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.00	24.00	24.00	0.00	0.00	8
10		24.00	24.00	24.00	0.00	0.00	8
19		24.00	24.00	24.00	0.00	0.00	8
38		24.00	24.00	24.00	0.00	0.00	8
75		24.00	24.00	24.00	0.00	0.00	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	8.06	7.90	8.30	0.12	4.27	8
10		8.05	7.90	8.10	0.08	3.42	8
19		8.04	7.90	8.10	0.09	3.77	8
38		8.01	7.90	8.10	0.08	3.61	8
75		8.01	7.90	8.10	0.08	3.61	8
100		8.01	7.90	8.10	0.08	3.61	8
N Control	D. O. mg/L	7.68	6.40	8.00	0.54	9.57	8
10		7.56	6.30	8.10	0.62	10.44	8
19		7.65	6.20	8.20	0.68	10.78	8
38		7.68	6.20	8.40	0.73	11.12	8
75		7.88	6.20	8.50	0.72	10.79	8
100		7.73	6.20	8.50	0.76	11.31	8
N Control	Hardness mg/L	85.63	80.00	87.00	2.67	1.91	8
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		88.00	88.00	88.00	0.00	0.00	8
N Control	Cond-umhos	388.13	337.00	545.00	66.90	2.11	8
10		326.50	320.00	334.00	5.26	0.70	8
19		326.50	321.00	332.00	3.78	0.60	8
38		332.50	322.00	338.00	6.02	0.74	8
75		328.38	320.00	333.00	4.17	0.62	8
100		329.25	322.00	335.00	3.92	0.60	8
N Control	Alkalinity mg/L	60.00	60.00	60.00	0.00	0.00	8
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		51.00	51.00	51.00	0.00	0.00	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

July 21, 2009

Ms. Gina Cloutier
Victor Valley WWRA
15776 Main Street, Suite 3
Hesperia, CA 92345

Dear Ms. Cloutier:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:


CLIENT: Victor Valley WRA
SAMPLE I.D.: Final Effluent to Mojave River Grab
DATE RECEIVED: 8 July - 09
ABC LAB. NO.: VIC0709.042

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL NOEC = 100.00 %
 TUc = 1.00
 IC25 = >100.00 %
 IC50 = >100.00 %

GROWTH NOEC = 100.00 %
 TUc = 1.00
 IC25 = >100.00 %
 IC50 = >100.00 %

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

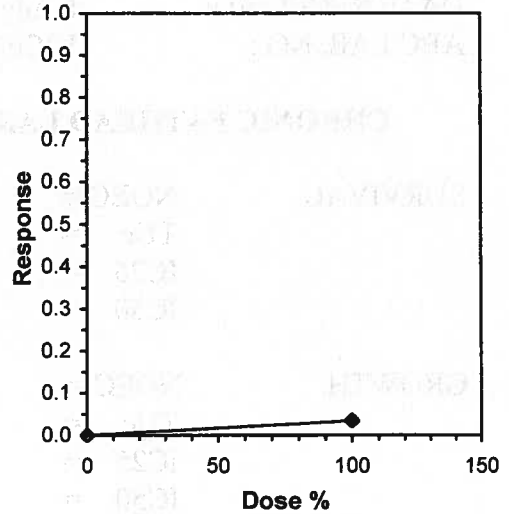
Start Date: 7/8/2009	Test ID: VIC0709042	Sample ID: CA000000
End Date: 7/15/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Conc-%	1	2	3	4
N Control	1.0000	1.0000	0.9333	0.9333
100	0.8000	1.0000	1.0000	0.9333

Conc-%	Mean	N-Mean	Transform: Arcsin Square Root					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	0.9667	1.0000	1.3755	1.3096	1.4413	5.528	4				0.9667	1.0000	
100	0.9333	0.9655	1.3249	1.1071	1.4413	11.915	4	0.578	1.940	0.1700	0.9333	0.9655	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89701	0.749	-0.904	0.42709						
F-Test indicates equal variances (p = 0.26)	4.3106	47.4683								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs N Control	100	>100		1	0.08993	0.09345	0.00513	0.01535	0.58441	1, 6

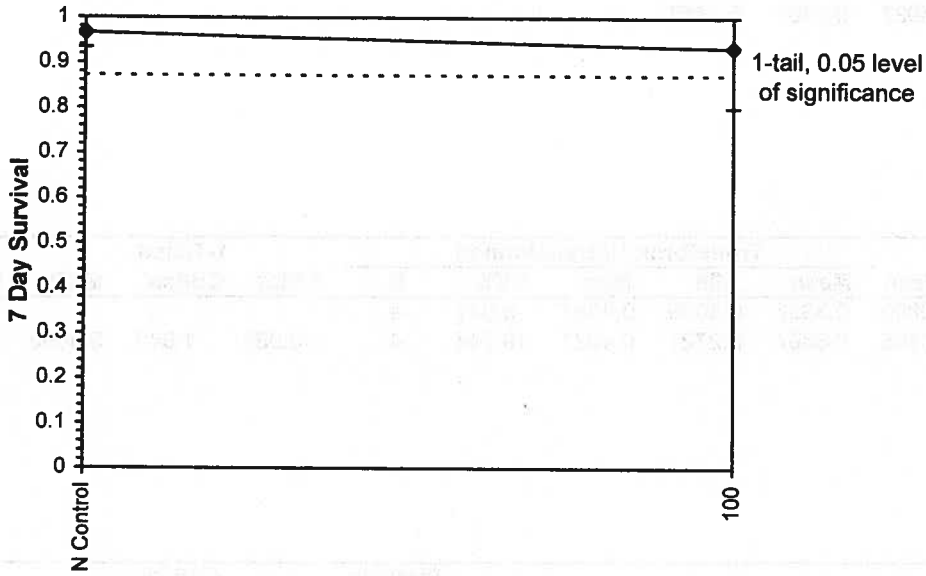
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 7/8/2009 Test ID: VIC0709042 Sample ID: CA000000
End Date: 7/15/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 7/7/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 7/8/2009	Test ID: VIC0709042	Sample ID: CA000000
End Date: 7/15/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

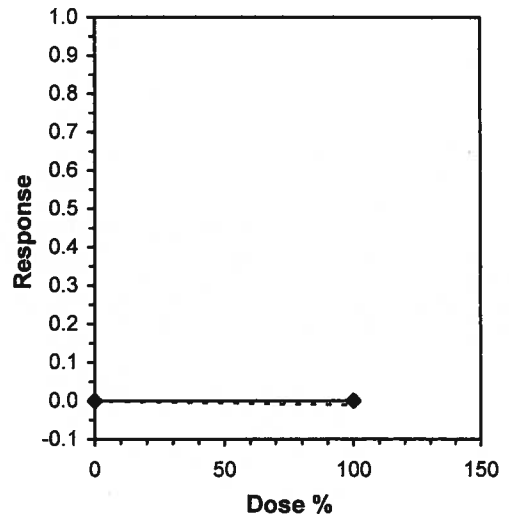
Conc-%	1	2	3	4
N Control	0.3000	0.3507	0.3587	0.3233
100	0.2727	0.4027	0.2867	0.3847

Conc-%	Mean	N-Mean	Transform: Untransformed				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
N Control	0.3332	1.0000	0.3332	0.3000	0.3587	8.041	4				0.3349	1.0000
100	0.3367	1.0105	0.3367	0.2727	0.4027	19.744	4	-0.098	1.940	0.0695	0.3349	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.9571	0.749	-0.0084	-1.4298
F-Test indicates equal variances ($p = 0.17$)	6.15635	47.4683		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.06952	0.20866	2.5E-05	0.00257	0.92537	1, 6

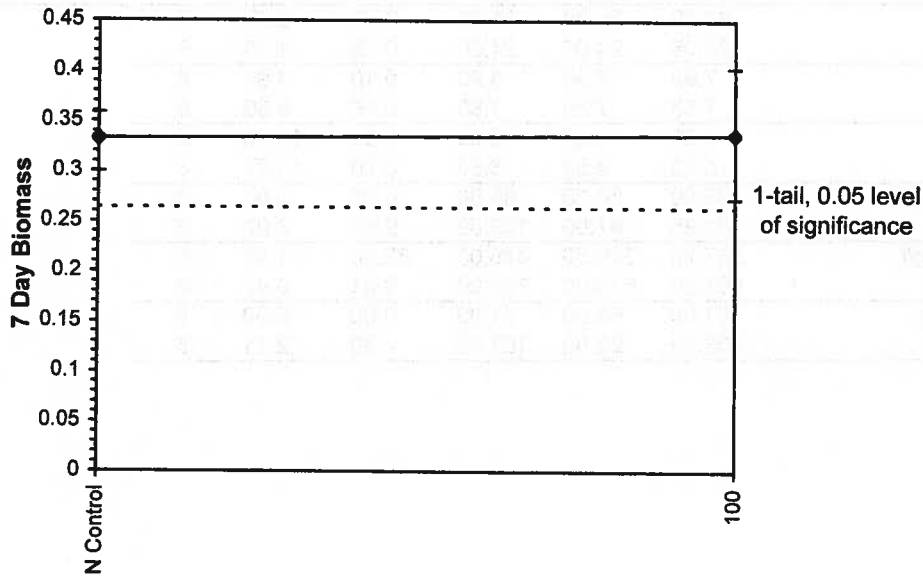
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 7/8/2009 Test ID: VIC0709042 Sample ID: CA000000
End Date: 7/15/2009 Lab ID: CAABC Sample Type: EFF1-POTW
Sample Date: 7/7/2009 Protocol: EPA-821-R-02-013 Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 7/8/2009	Test ID: VIC0709042	Sample ID: CA000000
End Date: 7/15/2009	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Final Effluent to Mojave River Grab		

Auxiliary Data Summary

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.36	24.00	25.90	0.71	3.47	8
100		24.06	24.00	24.50	0.18	1.75	8
N Control	pH	7.99	7.90	8.20	0.10	3.94	8
100		7.53	7.30	7.80	0.18	5.69	8
N Control	DO mg/L	6.88	6.30	8.00	0.63	11.50	8
100		5.83	4.50	6.80	0.70	14.37	8
N Control	Hardness mg/L	88.00	88.00	88.00	0.00	0.00	8
100		101.25	87.00	109.00	9.63	3.07	8
N Control	Alkalinity mg/L	367.75	346.00	448.00	32.90	1.56	8
100		691.00	674.00	704.00	9.01	0.43	8
N Control	Conductivity	61.00	61.00	61.00	0.00	0.00	8
100		103.75	96.00	107.00	4.80	2.11	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 7 July 2009
STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

IC25 = 28.24 ug/l

IC50 = 37.48 ug/l

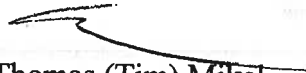
ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 23.52 ug/l

IC50 = 29.79 ug/l

Yours very truly,


Thomas (Tim) Mikel
Laboratory Director

Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 7/7/2009	Test ID: FHD070709	Sample ID: REF-Ref Toxicant
End Date: 7/14/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4
N Control	0.9333	1.0000	1.0000	1.0000
10	1.0000	1.0000	1.0000	1.0000
19	1.0000	1.0000	1.0000	1.0000
38	0.6000	0.4000	0.6667	0.2667
75	0.0000	0.0000	0.0667	0.1333
100	0.2000	0.0000	0.0000	0.0000

Conc-ug/L	Mean	N-Mean	Transform: Arcsin Square Root					Rank Sum	1-Tailed Critical	Isotonic	
			Mean	Min	Max	CV%	N			Mean	N-Mean
N Control	0.9833	1.0000	1.4084	1.3096	1.4413	4.675	4			0.9944	1.0000
10	1.0000	1.0169	1.4413	1.4413	1.4413	0.000	4	20.00	10.00	0.9944	1.0000
19	1.0000	1.0169	1.4413	1.4413	1.4413	0.000	4	20.00	10.00	0.9944	1.0000
*38	0.4833	0.4915	0.7672	0.5426	0.9553	24.588	4	10.00	10.00	0.4833	0.4860
*75	0.0500	0.0508	0.2235	0.1295	0.3738	52.754	4	10.00	10.00	0.0500	0.0503
*100	0.0500	0.0508	0.2130	0.1295	0.4636	78.445	4	10.00	10.00	0.0500	0.0503

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92391	0.884	0.49049	0.98678
Equality of variance cannot be confirmed				

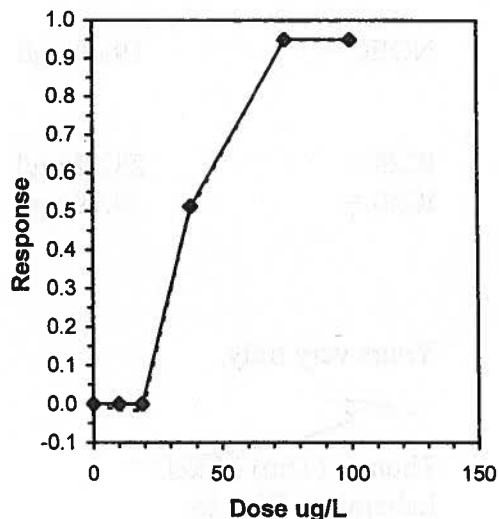
Hypothesis Test (1-tail, 0.05) **NOEC** **LOEC** **ChV** **TU**

Steel's Many-One Rank Test 19 38 26.8701

Treatments vs N Control

Linear Interpolation (200 Resamples)

Point	ug/L	SD	95% CL(Exp)		Skew
IC05	20.848	0.297	20.073	21.896	0.5030
IC10	22.697	0.594	21.146	24.792	0.5030
IC15	24.545	0.890	22.219	27.687	0.5030
IC20	26.393	1.187	23.292	30.583	0.5030
IC25	28.242	1.484	24.365	33.479	0.5030
IC40	33.787	2.422	27.583	42.775	0.5807
IC50	37.484	3.717	29.729	51.572	0.5555



Larval Fish Growth and Survival Test-7 Day Survival

Start Date: 7/7/2009

Test ID: FHD070709

Sample ID:

REF-Ref Toxicant

End Date: 7/14/2009

Lab ID: CAABC

Sample Type:

CUCL-Copper chloride

Sample Date: 7/7/2009

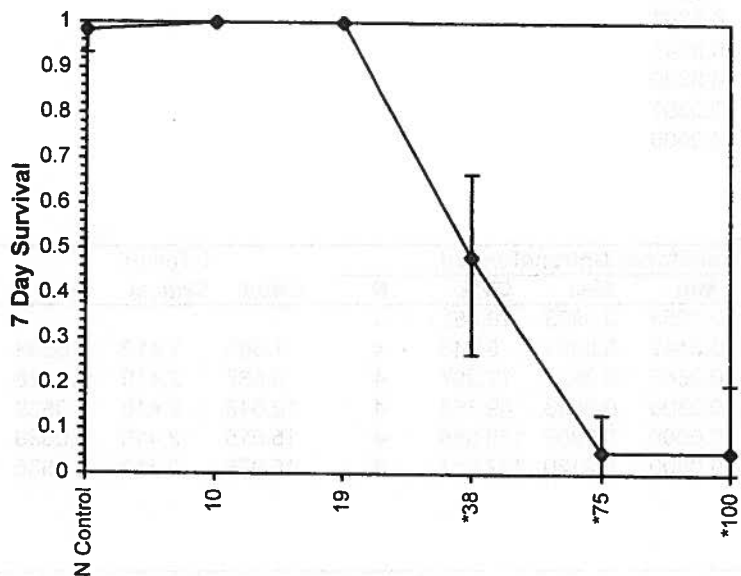
Protocol: EPA-821-R-02-013

Test Species:

PP-Pimephales promelas

Comments: Standard Toxicant

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

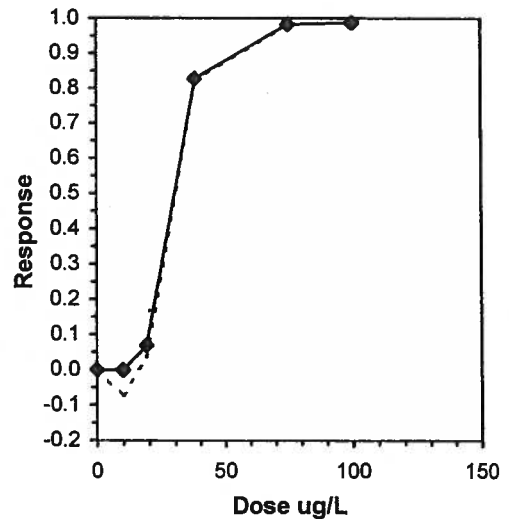
Start Date: 7/7/2009	Test ID: FHD070709	Sample ID: REF-Ref Toxicant
End Date: 7/14/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Conc-ug/L	1	2	3	4
N Control	0.3053	0.3213	0.3520	0.3853
10	0.3447	0.3893	0.3500	0.3767
19	0.2640	0.3020	0.3927	0.3547
38	0.0847	0.0400	0.0893	0.0300
75	0.0000	0.0000	0.0027	0.0207
100	0.0060	0.0000	0.0120	0.0000

Conc-ug/L	Transform: Untransformed							t-Stat	1-Tailed Critical	MSD	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N				Mean	N-Mean
N Control	0.3410	1.0000	0.3410	0.3053	0.3853	10.362	4				0.3531	1.0000
10	0.3652	1.0709	0.3652	0.3447	0.3893	5.845	4	-1.083	2.410	0.0538	0.3531	1.0000
19	0.3283	0.9629	0.3283	0.2640	0.3927	17.287	4	0.567	2.410	0.0538	0.3283	0.9299
*38	0.0610	0.1789	0.0610	0.0300	0.0893	49.768	4	12.543	2.410	0.0538	0.0610	0.1728
*75	0.0058	0.0171	0.0058	0.0000	0.0207	170.888	4	15.015	2.410	0.0538	0.0058	0.0165
*100	0.0045	0.0132	0.0045	0.0000	0.0120	127.657	4	15.075	2.410	0.0538	0.0045	0.0127

Auxiliary Tests					Statistic	Critical	Skew	Kurt					
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.98684	0.884	0.08503	0.61081					
Bartlett's Test indicates equal variances (p = 0.02)					13.7454	15.0863							
Hypothesis Test (1-tail, 0.05)				NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test				19	38	26.8701		0.0538	0.15776	0.12592	0.001	2.3E-13	5, 18
Treatments vs N Control													

Point	ug/L	SD	Linear Interpolation (200 Resamples)		
			95% CL(Exp)	Skew	
IC05	16.420	3.119	8.616	22.482	-0.1422
IC10	19.750	2.288	10.753	22.418	-0.8317
IC15	21.005	1.706	13.750	23.605	-0.9139
IC20	22.260	1.427	16.487	24.789	-0.6929
IC25	23.515	1.306	18.479	25.972	-0.6148
IC40	27.279	1.023	23.547	29.522	-0.4401
IC50	29.788	0.885	26.790	31.888	-0.2310



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 7/7/2009

Test ID: FHD070709

Sample ID: REF-Ref Toxicant

End Date: 7/14/2009

Lab ID: CAABC

Sample Type: CUCL-Copper chloride

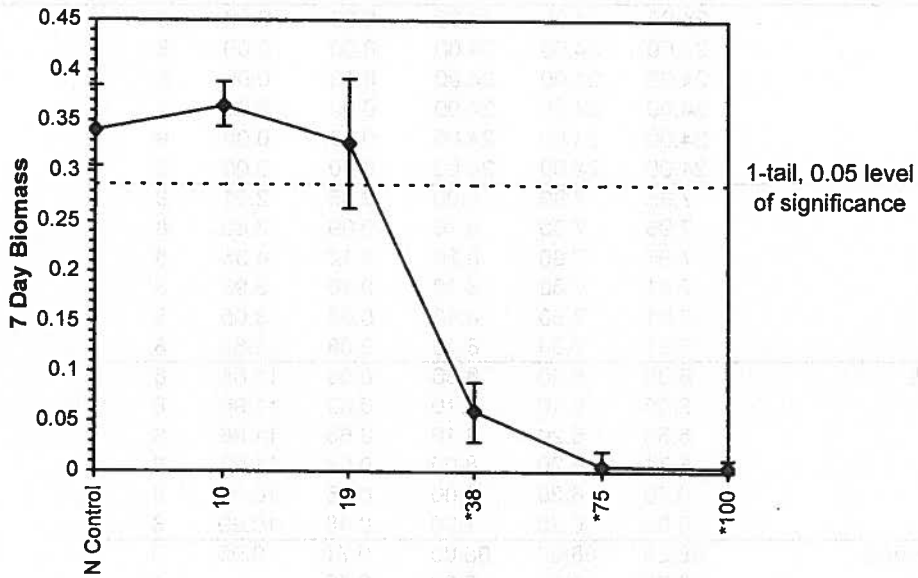
Sample Date: 7/7/2009

Protocol: EPA-821-R-02-013

Test Species: PP-Pimephales promelas

Comments: Standard Toxicant

Dose-Response Plot



Larval Fish Growth and Survival Test-7 Day Biomass

Start Date: 7/7/2009	Test ID: FHD070709	Sample ID: REF-Ref Toxicant
End Date: 7/14/2009	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 7/7/2009	Protocol: EPA-821-R-02-013	Test Species: PP-Pimephales promelas
Comments: Standard Toxicant		

Auxiliary Data Summary

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.00	24.00	24.00	0.00	0.00	8
10		24.00	24.00	24.00	0.00	0.00	8
19		24.00	24.00	24.00	0.00	0.00	8
38		24.00	24.00	24.00	0.00	0.00	8
75		24.00	24.00	24.00	0.00	0.00	8
100		24.00	24.00	24.00	0.00	0.00	8
N Control	pH	7.95	7.90	8.00	0.05	2.91	8
10		7.96	7.80	8.10	0.09	3.80	8
19		7.95	7.80	8.20	0.12	4.35	8
38		7.91	7.80	8.10	0.10	3.98	8
75		7.91	7.80	8.10	0.08	3.65	8
100		7.91	7.80	8.10	0.08	3.65	8
N Control	D. O. mg/L	6.99	6.40	8.30	0.66	11.65	8
10		6.65	6.10	8.10	0.63	11.96	8
19		6.66	6.20	8.10	0.63	11.96	8
38		6.71	6.20	8.00	0.57	11.22	8
75		6.79	6.20	8.00	0.55	10.91	8
100		6.85	6.20	7.90	0.48	10.09	8
N Control	Hardness mg/L	88.25	88.00	90.00	0.71	0.95	8
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		90.00	90.00	90.00	0.00	0.00	8
N Control	Cond-umhos	356.50	346.00	365.00	6.09	0.69	8
10		380.63	339.00	425.00	38.73	1.63	8
19		350.13	338.00	360.00	7.95	0.81	8
38		346.88	337.00	355.00	5.59	0.68	8
75		347.50	338.00	355.00	5.35	0.67	8
100		349.13	341.00	355.00	4.94	0.64	8
N Control	Alkalinity mg/L	61.50	61.00	65.00	1.41	1.93	8
10		0.00	0.00	0.00	0.00		0
19		0.00	0.00	0.00	0.00		0
38		0.00	0.00	0.00	0.00		0
75		0.00	0.00	0.00	0.00		0
100		65.00	65.00	65.00	0.00	0.00	8

SECTION 10

**DISCHARGE MONITORING
REPORT**

SECTION 11

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DISCHARGE PORTLAND

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NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

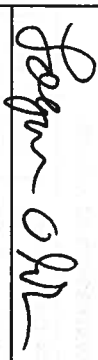
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	09	01	01		09	12	31

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS	
CHLOROETHANE 85811 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	(28)	0	2/YR	GRAB		
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****						
	REPORT DAILY MIX											
Static Renewal 7-Day Chronic Ceriodaphnia dubia TTP3B 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	(2G)	0	8/YR	GRAB		
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****						
	REPORT DAILY MIX											
Static Renewal 7-Day Chronic Pimphales promelas TTP6C 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	(2G)	0	5/YR	GRAB		
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****						
	REPORT DAILY MIX											
SAMPLE MEASUREMENT	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
SAMPLE MEASUREMENT	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
	PERMIT REQUIREMENT											
LOGAN R. OLDS GENERAL MANAGER												
TYPED OR PRINTED												
COMMENTS AND EXPLANATION OF ANY VIOLATIONS	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.											
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	 Logan R. Olds AREA CODE 760 NUMBER 246-8638								DATE	10	02	23

REFERENCE all attachments here)

NAME VIC VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHG MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

MAJOR (SUBR 06)
 F - FINAL DISCHARGE 001 / ANNUALLY
 Form Approved MB No. 2040-0004

Check here if No Discharge
 NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE												
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS											
PCB-1254	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
39504 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
PCB-1260	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
39508 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
HEXACHLOROBENZENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
39700 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
4-CHLORO-3-METHYLPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
70012 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
71901 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
TOTAL RECOVERABLE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
74055 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
1,3-DICHLOROPROPENE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
77163 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****												
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER																						
LOGAN R. OLDS																						
GENERAL MANAGER																						
TYPED OR PRINTED																						
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)																						
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.																						
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT																						
<table border="1"> <tr> <td>AREA CODE</td> <td>NUMBER</td> <td>NUMBER</td> <td>YEAR</td> <td>MO</td> <td>DAY</td> </tr> <tr> <td>760</td> <td>246-8638</td> <td></td> <td>10</td> <td>02</td> <td>23</td> </tr> </table>											AREA CODE	NUMBER	NUMBER	YEAR	MO	DAY	760	246-8638		10	02	23
AREA CODE	NUMBER	NUMBER	YEAR	MO	DAY																	
760	246-8638		10	02	23																	
TELEPHONE																						
DATE																						

NAME VICTOR VALLEY WRA

ADDRESS 20111 SHAY ROAD

VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP

LOCATION VICTORVILLE CA 92394

ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CA0102822
PERMIT NUMBER

001 Y
DISCHARGE NUMBER

MAJOR (SUBR 06)
F - FINAL
DISCHARGE 001 / ANNUALLY

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

Check here if No Discharge
NOTE: Read instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
TOXAPHENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
39400 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
HEPTACHLOR	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39410 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
HEPTACHLOR EPOXIDE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39420 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
PCB-1221	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39488 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
PCB-1232	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39492 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
PCB-1242	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39496 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
PCB-1248	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
39500 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB	
		SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.									
LOGAN R. OLDS GENERAL MANAGER		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		760 246-8638		TELEPHONE		DATE		23	
TYPED OR PRINTED		COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)		AREA CODE		NUMBER		YEAR		MO	DAY

NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 CA01020822
 PERMIT NUMBER 001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
ALDRIN	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39330 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
alpha - BHC	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39336 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
beta - BHC	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39338 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
gamma - BHC	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39344 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
CHLORDANE (TECH MIX. AND METABOLITES)	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39350 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
DIELDRIN	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39380 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
ENDRIN	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39390 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER											
LOGAN R. OLDS											
GENERAL MANAGER											
TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)											
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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										760	
[Signature]										246-8638	
TELEPHONE										10	
DATE										02	
										23	

NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

CA0102822
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
09	01	01	09	12	31	

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

Check here if No Discharge
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PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. OF ANALYSIS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
DI-N-BUTYL PHTHALATE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39110 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
BENZIDINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<50.0000	(28)	0	1/YR	GRAB
39120 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
VINYL CHLORIDE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.5000	(28)	0	2/YR	GRAB
39175 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
TRICHLOROETHYLENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.50	(28)	0	2/YR	GRAB
39180 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
4,4' - DDT	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39300 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
4,4' - DDD	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
39310 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
4,4' - DDE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.0000	(28)	0	1/YR	GRAB
39320 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.											
LOGAN R. OLDS GENERAL MANAGER TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)											
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT TELEPHONE DATE											
AREA CODE NUMBER YEAR MO DAY 760 246-8638 10 02 23											

NAME VIC VALLEY WRA
 ADDRESS 2011TSHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

CA010Z622
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. OF ANALYSIS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
4-CHLOROPHENYL PHENYL ETHER	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34641 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
4-NITROPHENOL	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<50.00	(28)	0	1/YR	GRAB
34646 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
PCB-1016 (AROCHEOR 1016)	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<50.00	(28)	0	1/YR	GRAB
34671 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,3,7,8 TETRACHLORO-DIBENZO-P-DIOXIN	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<0.05	(28)	0	1/YR	GRAB
34675 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
PHENOL, SINGLE COMPOUND	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34694 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAPHTHALENE	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<10.000	(28)	0	1/YR	GRAB
34696 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
PENTACHLOROPHENOL	SAMPLE MEASUREMENT	*****	*****	****	*****	*****	<50.00	(28)	0	1/YR	GRAB
39032 1 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER											
LOGAN R. OLDS											
GENERAL MANAGER											
TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)											

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature of Principal Executive Officer or Authorized Agent: *Logan R. Olds*

TELEPHONE: 760 246-8638
 DATE: 10 02 23

NAME VICTOR VALLEY WRA

ADDRESS 20111 SHAY ROAD

VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP

LOCATION VICTORVILLE CA 92394

ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CA0102822

PERMIT NUMBER

001 Y

DISCHARGE NUMBER

MAJOR (SUBR 06)

F - FINAL

DISCHARGE 001 / ANNUALLY

MONITORING PERIOD					
FROM	YEAR	MO	DAY	TO	YEAR
09	09	01	01	09	12
					31

Check here if No Discharge

NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
2,4-DIMETHYLPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34606 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,4-DINITROTOLUENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34611 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,4-DINITROPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<50.00	(28)	0	1/YR	GRAB
34616 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,4,6-TRICHLOROPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34621 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,6-DINITROTOLUENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34626 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
3,3'-DICHLOROBENZIDINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<20.00	(28)	0	1/YR	GRAB
34631 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
4-BROMOPHENYL PHENYL ETHER	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34636 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
<p>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</p> <p>LOGAN R. OLDS GENERAL MANAGER</p> <p>TELEPHONE</p> <p>DATE</p>											
<p>TYPED OR PRINTED</p> <p>COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)</p> <p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.</p> <p>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</p> <p>760 AREA CODE 246-8638 NUMBER 10 YEAR 02 MO 23 DAY</p>											

NAME: VICTOR VALLEY WRA
 ADDRESS: 20111 SHAY ROAD VICTORVILLE CA 92394-8539

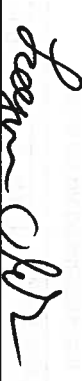
FACILITY: VICTOR VALLEY MUNI WTP
 LOCATION: VICTORVILLE CA 92394
 ATTN: MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 CA01072822
 PERMIT NUMBER: 001 Y
 DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
09	01	01	09	12	31	

MAJOR (SUBR 06) F - FINAL DISCHARGE 001 / ANNUALLY
 Form Approved MB No. 2040-0004

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	AVERAGE	MAXIMUM	UNITS			
1,4-DICHLOROBENZENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	<0.50	(28)	0	2YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34571 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<5.00	(28)	0	2YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2-CHLOROETHYL VINYL ETHER (MIXED)	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34576 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2-CHLORONAPHTHALENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34581 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2-CHLOROPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34586 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2-NITROPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34591 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
DI-N-OCTYL PHTHALATE	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34596 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
2,4-DICHLOROPHENOL	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34601 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	<10.00	(28)	0	1YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER LOGAN R. OLDS GENERAL MANAGER I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.										
TYPED OR PRINTED COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)										
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT 							TELEPHONE 760 246-8638		DATE 10 02 23	

NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

CA0102822
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	09	01	01		09	12	31

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. OF ANALYSIS	FREQUENCY	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
BENZO(GH)PERYLENE		*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
34521 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
BENZO(A)ANTHRACENE		*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
34526 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,2-DICHLOROBENZENE		*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34536 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,2-DICHLOROPROPANE		*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34541 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,2-TRANS-DICHLOROETHYLENE		*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34546 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,2,4-TRICHLOROBENZENE		*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
34551 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,3-DICHLOROBENZENE		*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34566 1 0 EFFLUENT GROSS		*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.								
LOGAN R. OLDS GENERAL MANAGER		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE		DATE				
				760 246-8638		10 02 23				
TYPED OR PRINTED		COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)								

NAME V/C VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHA MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER

001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

Check here if No Discharge
 NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
34469 1 0 EFFLUENT GROSS0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
TETRACHLOROETHYLENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34475 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,1-DICHLOROETHANE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34496 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,1-DICHLOROETHYLENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34501 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,1,1-TRICHLOROETHANE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34506 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,1,2-TRICHLOROETHANE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34511 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
1,1,2,2-TETRACHLOROETHANE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
34516 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER										
LOGAN R. OLDS GENERAL MANAGER										
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.										
TYPED OR PRINTED										
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)										
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT								760		246-8638
TELEPHONE								AREA CODE		NUMBER
DATE								YEAR		MO DAY

NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER 001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY
 Form Approved
 OMB No. 2040-0004

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

MONITORING PERIOD					
FROM	YEAR	MO	DAY	TO	YEAR
	09	01	01		09

Check here if No Discharge
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
METHYL CHLORIDE (Chloromethane)	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
34418 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	2/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<3.00	(28)	ANNUAL	GRAB
34423 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
N-NITROSODI-N-PROPYLAMINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	ANNUAL	GRAB
34428 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
N-NITROSODIPHENYL-AMINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	ANNUAL	GRAB
34433 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
N-NITROSODIMETHYL-AMINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	ANNUAL	GRAB
34438 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
NITROBENZENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	ANNUAL	GRAB
34447 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
PHENANTHRENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	ANNUAL	GRAB
34461 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L	ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.								
LOGAN R. OLDS GENERAL MANAGER		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE		DATE				
		760 246-8638		10 02		23				
TYPED OR PRINTED		COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)								

NAME: VICTOR VALLEY WRA
 ADDRESS: 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER
 001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY
 Form Approved
 4B No. 2040-0004

FACILITY: VICTOR VALLEY MUNI WTP
 LOCATION: VICTORVILLE CA 92394
 ATTN: MR. LOGAN R. OLDS

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
09	01	01	09	12	31	

Check here if No Discharge
 NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. OF ANALYSIS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
FLUORENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34381 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
HEXACHLOROCYCLO-PENTADIENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<50.00	(28)	0	1/YR	GRAB
34386 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
HEXACHLOROBUTADIENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34391 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
HEXACHLOROETHANE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34396 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
INDENO (1,2,3-CD)	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34403 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
ISOPHORONE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
34408 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
METHYL BROMIDE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.50	(28)	0	2/YR	GRAB
34413 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER											
LOGAN R. OLDS GENERAL MANAGER											
TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)											
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.											
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										TELEPHONE	
[Signature]										760 246-8638	
DATE										10 02 23	

NAME VICTOR VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

CA0102822
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MAJOR (SUBR 06)
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PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
1,2-DIPHENYL-HYDRAZINE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34346 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34351 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
beta - ENDOSULFAN	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34356 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
alpha - ENDOSULFAN	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34361 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
ENDRIN ALDEHYDE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34366 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.50	(28)	0	2/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
ETHYLBENZENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34371 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
FLUORANTHENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
34376 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER											
LOGAN R. OLDS GENERAL MANAGER											
TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)											
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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										TELEPHONE	
										760 246-8638	
AREA CODE NUMBER										DATE	
760 246-8638										10 02 23	

NAME VIC VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHA MONITORING REPORT (DMR)
 CA0102822
 PERMIT NUMBER

001 Y
 DISCHARGE NUMBER

MAJOR (SUBR 06)
 F - FINAL
 DISCHARGE 001 / ANNUALLY

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

Check here if No Discharge
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PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
BIS (2-CHLOROETHOXY) METHANE 34278 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
BIS (2-CHLORO-ISOPROPYL) ETHER 34283 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
BUTYL BENZYL PHTHALATE 34292 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
CHLOROBENZENE 34301 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.50	(28)	0	2/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
CHRYSENE 34320 1 0 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
DIETHYL PHTHALATE 34336 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
DIMETHYL PHTHALATE 34341 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER											
LOGAN R. OLDS											
GENERAL MANAGER											
TYPED OR PRINTED											
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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										TELEPHONE	
										760 246-8638	
DATE										10 02 23	

NAME VICTOR VALLEY WRA

ADDRESS 20111 SHAY ROAD VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

CA0102822
 PERMIT NUMBER

001 Y
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MAJOR (SUBR 06)
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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
ACROLEIN	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	2/YR GRAB
34210 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
ACRYLONITRILE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	2/YR GRAB
34215 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
ANTHRACENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR GRAB
34220 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
BENZO(B)FLUORANTHENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.05	(28)	0	1/YR GRAB
34230 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
BENZO(K)FLUORANTHENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.05	(28)	0	1/YR GRAB
34242 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
BENZO(A)PYRENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<0.05	(28)	0	1/YR GRAB
34247 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
BIS (2-CHLOROETHYL) ETHER	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	<10.00	(28)	0	1/YR GRAB
34273 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	REPORT DAILY MX	UG/L		ANNUAL GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.										
LOGAN R. OLDS GENERAL MANAGER TYPED OR PRINTED COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)										
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT								TELEPHONE		DATE
							760 246-8638		10 02 23	

NAME VIC VALLEY WRA

ADDRESS 20111 SHAY ROAD

VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP

LOCATION VICTORVILLE CA 92394

ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHA MONITORING REPORT (DMR)

CA0102822

PERMIT NUMBER

001 Y

DISCHARGE NUMBER

MAJOR

(SUBR 06)

F - FINAL

DISCHARGE 001 / ANNUALLY

Form Approved
MB No. 2040-0004

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
09	01	01		09	12	31

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PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX ANALYSIS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS			
BROMOFORM	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
32104 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
CHLOROFORM	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
32106 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
TOLUENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
34010 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
BENZENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
34030 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
delta - BHC	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
34198 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
ACENAPHTHYLENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
34200 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
ACENAPHTHENE	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
34205 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	*****				
<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.</p>														
<p>LOGAN R. OLDS GENERAL MANAGER</p>								<p>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</p>		<p>760 AREA CODE</p>	<p>246-8638 NUMBER</p>	<p>10 YEAR</p>	<p>02 MO</p>	<p>23 DAY</p>
<p>COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)</p>														

NAME VICTOR VALLEY WRA

ADDRESS 20111 SHAY ROAD VICTORVILLE CA 92394-8539

FACILITY VICTOR VALLEY MUNI WTP

LOCATION VICTORVILLE CA 92394

ATTN MR. LOGAN R. OLDS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

CA0102822 PERMIT NUMBER

001 Y DISCHARGE NUMBER

MAJOR (SUBR 06) F - FINAL DISCHARGE 001 / ANNUALLY

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
09	01	01	09	12	31

Check here if No Discharge

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PARAMETER	SAMPLING MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE												
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM																
SILVER TOTAL RECOVERABLE 01079 1 0 EFFLUENT GROSS	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	1/YR	GRAB												
CADMIUM TOTAL RECOVERABLE 01113 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	REPORT DAILY MX															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	1/YR	GRAB												
LEAD TOTAL RECOVERABLE 01114 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	<10.00															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	1/YR	GRAB												
ANTIMONY, TOTAL RECOVERABLE 01268 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	<10.00															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	1/YR	GRAB												
2-METHYL-4,6-DINITROPHENOL 03615 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	<50.00															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	1/YR	GRAB												
CARBON TETRACHLORIDE 32102 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	<0.50															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	2/YR	GRAB												
1,2-DICHLOROETHANE 32103 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	<0.50															
	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	(28)	0	2/YR	GRAB												
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.																						
LOGAN R. OLDS GENERAL MANAGER	<table border="1"> <tr> <td colspan="2">SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</td> <td colspan="2">TELEPHONE</td> <td colspan="2">DATE</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">760 246-8638</td> <td colspan="2">10 02 23</td> </tr> </table>											SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE		DATE				760 246-8638		10 02 23	
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NAME VIC VALLEY WRA
 ADDRESS 20111 SHAY ROAD
 VICTORVILLE CA 92394-8539

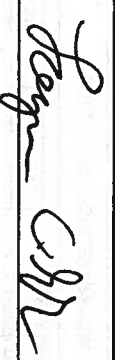

FACILITY VICTOR VALLEY MUNI WTP
 LOCATION VICTORVILLE CA 92394
 ATTN MR. LOGAN R. OLDS

DISCHA MONITORING REPORT (DMR)
 CA0102R22
 PERMIT NUMBER 001 Y
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MAJOR (SUBR 06)
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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
ARSENIC, TOTAL RECOVERABLE 00978 1 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
SELENIUM, TOTAL RECOVERABLE 00981 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
THALLIUM, TOTAL RECOVERABLE 00982 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
BERYLLIUM, TOTAL RECOVERABLE (AS BE) 00998 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
CHROMIUM, HEXAVALENT (AS CR) 01032 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
CHROMIUM, TRIVALENT (AS CR) 01033 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
NICKEL TOTAL RECOVERABLE 01074 1 0	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	0	1/YR	GRAB
EFFLUENT GROSS	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	0	ANNUAL	GRAB
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER										
LOGAN R. OLDS GENERAL MANAGER										
TYPED OR PRINTED										
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)										
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.										
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										TELEPHONE
 LOGAN R. OLDS										760 246-8638
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										DATE
 LOGAN R. OLDS										10 02 23