COD WA 2-4 sampling

9.28.09
9.29.09

A-420

9.16.09
9.17.09 & 9.23.09

4

Sample ~~std in~~ PPM	ID I	ABS	DF	Conc.	Remarks
0.0	0.0				
10.0	-0.034				LCS - P076516
25.0	-0.087				TV=174.0 PPM
50.0	-0.182				reg. 0.9957
70.0	-0.249	ABS			
100.0	-0.325				
150.0	-0.478				
LCS	-0.292		×2	177.3	
Rain water	4914	-0.070 ~~-0.133~~		~~38.78~~ 21.2	
" Dup	4914	-0.070			
Shield -1	4893	-0.623			SK = 50 ml of 1000 in to 2nd = 25
2	4894	-0.633			
3	4895	-0.635			9.16.09 sampling
Unsealed 1	4883	-0.622			
2	4884	-0.626	Higher than calibration std see rerun next page		
2-SK	4884	-0.635			
Drive-Maxx-1	4903	-0.624			
2	4904	0.625			
3	4905	0.620			
LCS	~~-0.295~~	~~-0.029~~ -0.295	×2		
Blank	~~0.0~~	0.0			
Shield-1	4925	-0.076			
2	4926	-0.065			
3	4927	-0.077			
Unsealed-1	4917	-0.086			9.17.09 sampling
2	4918	-0.093			
2-Dup	4918	-0.089			
Drive-Maxx-1	4935	-0.090			SK = 25 PPM
2	4936	-0.086			
3	4937	-0.088			
3 SK	4937	~~-0.190~~ -0.175			rerun
LCS		-0.291			
Blank		0.0			
Cutout-1	4982	-0.076			
2	4983	-0.079			
2 Dup	4983	-0.079			9.23.09 sampling SK = 25 PP
Unsealed	4954	-0.129			
	4955	-0.120			
SK	4955	-0.215			

9.29.09

Sample	IQ	ABS	DF	Conc
Shield-1	4963	-0.107		
2	4964	-0.108		
3	4965	-0.107		
Drive-Max-1	4973	-0.088		
2	4974	-0.086		
3	4975	-0.086		
~~Blank~~	—			
LCS	—	-0.293		
LCS	—	-0.309		
Blank		0.00		
Shield-1	4893	~~-0.168~~ ~~-0.198~~	~~2~~ x5	
2	4894	-0.152	~~2~~ x5	
3	4895	-0.158	~~2~~ x5	
Unseeded-1	4883	-0.314	2	
2	4884	-0.324	2	
2 Sk	4884	-0.395	2	
Drive-Max-1	4903	-0.323	~~2~~ x5	
2	4904	-0.339	~~2~~ x5	
3	4905	-0.325	x ~~2~~5	
LCS	—	-0.291	x2	
LCS	—	-0.293	x2	

9.23.09 Sampling

9.16.09 sampling with 2x dilution 5x dilution
2x dilution out of calibration
reanalyzed with 5x dilution
YP
Sk = 25x2 = 50 P/m

Date was off on DR/2010
DR/2010 Date was 09/25/09 & 09/26/09
Instead of 09/29/09
YP

112 COD MDL 10-1-09 YP

.09 1420

...ple ID in PPM	ABS	DF	Conc.	Comments
0.0	0.0			PO 76.516
10.0	-0.038			TV = 174.0 PPM
25.0	-0.087			
50.0	-0.179			
70.0	-0.249			
100.0	-0.332			
150.0	-0.498			
LCS	-0.291	x2	172.3	
MDL				
0.0 PPM	-0.038		9.57	
10.0	-0.037		9.27	
10.0	-0.038		9.57	
10.0	-0.039		9.88	
10.0	-0.038		9.57	Std Dev = 0.344
10.0	-0.039		9.88	MDL = Std Dev x 2.821
10.0	-0.039		9.88	= 0.970
10.0	-0.041		10.48	= 1.0 PPM
10.0	-0.040		10.18	
10.0	-0.040		10.18	
LCS	-0.0292	x2	172.86	YP
LCS	-0.0297	x2	175.89	

10.22.09

COD WA 2-2 sampling 10.15.09
λ 420

Sample Std. in PPM	Est	ABS	DF	Conc.	Comments
0.0		0.0			
10.0		-0.037			
25.0		-0.091			Reg. 0.9962
50.0		-0.160			
70.0		-0.248			
100.0		-0.331			
150.0		-0.475			
LCS	—	-0.297	×2	180.5	LCS. P076516 TV=174 PPM
Unscaled	4996	-0.164			
"	4997	-0.164			
cut out	5003	-0.245			
"	5004	-0.259			
shieed-1	5012	-0.316			
2	5013	-0.315			
3	5014	-0.330			
Drive. max-1	5022	-0.209		62.45	Std = 25 PPM
2	5023	-0.211		63.09	50 ml of 1000 PPM
3	5024	-0.209		62.45	in to 2ml = 25 PPM
30ml	5024	-0.218		66.3	
35ml	5024	-0.292		88.7	
LCS	—	-0.304	×2	187.42	
LCS	—	-0.294	×2		
Blank		0.0			

114

11.6.09

COD WA 2-2 sampling 11.3.09 & 11.4.09

λ 420

YP

Sample std. in PPM	ID #	ABS	DF	Conc. in PPM	Comments
Blank 0.0	~~0.0~~	0.0			
10.0	—	-0.043			
25.0	—	-0.096			
50.0	—	~~-0.169~~	0.174		Reg 0.9987
70.0	—	-0.0254	-0.229		LCS - P076516
100.0	—	-0.323			TV = 174.0 PPM
150.0	—	-0.478			
LCS	—	-0.312	x2	192.1	
Composite Tank	5251	-0.106			
" "	5252	-0.098			
Shield T0	5239	-0.095			
T30	5240	-0.107			11.3.09 sampling
T60	5241	-0.095			
T-60 Dup	5241	-0.091			50 µl of 1000 PPM in to 2nd
Unsealed T0	5215	-0.092			SK = 25 PPM
T30	5216	-0.104			
T60	5217	-0.102		29.1	
T-60 SK	5217	-0.187		56.2	
LCS	—	-0.250	x2	132.6	
Drive Maxx T0	5227	-0.631	see rerun with 5x at end		out of calibration
T30	5228	-0.103			
T60	5229	-0.086			
LCS		-0.298	x2	183.2	
Composite Tank	5287	-0.094			
" "	5288	-0.094			
Unsealed-1	5260	-0.092			
Unsealed 2	5261	-0.093			11.4.09 sampling
~~Shield 2 Dup~~	5261	-0.093			
Shield-1	5278	-0.092			
2	5279	-0.089			
3	5280	-0.087		24.34	SK = 25 PPM
3 SK	5280	-0.174		52.08	
Drive Maxx-1	5268	-0.115			
2	5269	-0.122			
3	5270	-0.124			
LCS —	—	-0.296	x2		
LCS —	—	-0.288	x2		
Drive Maxx T0	5227	-0.112	x5		

11.16.09 COD WA 2-2 sampling 11-10-09 1154P

λ 420

Sample Std. in PPM	FO #	ABS	DF	Conc. in PPM	Comments
0.0	0.0	0.0			LCS - Po7 6516 TV = 174.0 PPM
10.0	-0.030	-0.030			
25.0	-0.088	-0.088			Reg = 0.9969
50.0	-0.176	-0.176			
70.0	-0.242	-0.242			
100.0	-0.319	-0.319			
150.0	-0.473	-0.473			
LCS	—	-0.294	x2.	181.8	
Composite Tank	5322	-0.090			
" "	5323	-0.103			
" Dup	5323	-0.094			
shield - 1	5313	-0.099			
" 2	5314	-0.093			
" 3	5315	-0.103		30.4	sk = 25 PPM
" 3 Sk	5315	-0.173		52.6	50 µl of 1000 PPM in 2ml
unsealed - 1	5295	-0.099			
2	5296	-0.101			
drive Mixx - 1	5303	-0.157			
" 2	5304	-0.163			
" 3	5305	-0.159			
LCS	—	-0.286	x2		
LCS	—	-0.279	x2		
Blank		0.000			

116 WA 2-2 Color λ 465

11.19.09

Sampling 11.3.09, 11.4.09 & 11.10.09

Sample ID		Cond. PtCo.
Std. in PtCo Unit.		
0.0		0.0
500.0		477.0
250.0		236.0
125.0		119
62.5		62.0
25.0		23.0
10.0 ~~12.5~~		10.0
50.0		48.0
20.0		20.0
Composite Tank	UnFilt.	44.0
"		45.0
Shield	T0	62.0
	T30	42
	T60	39
	T60 Dup	39
Unsealed	T0	60
	T30	46
	T60	42
Drive Maxx	T0	88
	T30	49
	T60	41
	T60 Dup	42
Std. 62.5	PPM	61.0
Std. 25.0	PPM	23.0
UnFilt.	DI H_2O	0
"	"	0
Composite tank	UnFiltered	47.0
"	"	47.0
Shield -1		56.0
Shield -2		57.0
Shield -3		55.0
Unsealed -1		71.0
" 2		70.0
" 2 Dup		71.0
Drive Maxx -1		50.0
" 2		51.0
" 3		52.0
Std. 62.5		63.0
Std 25.0		24.0
Cond. Tank	UnFilt.	71.0

All Samples pH Adjusted to ~~6.8~~ 7.6 ± ~~0.5~~ 0.05

11.3.09 sampling UnFiltered

11.4.09 sampling UnFiltered

11.19.09 WA 2-2 Continue. Color λ465

Sample ID	Conc. PtCo
Shield - 1 UnFilt.	79.0
2	78.0
3	79.0
Unsealed - 1	65.0
2	63.0
2 DW	61.0
Drive-maxx - 1	82.0
2	83.0
3	82.0
Std. 62.5	63.0
Std 25.0	25.0
UnFilt. DI H2O	1.0

11.10.09 Sampling UnFiltered samples.

Filtered DI H2O	0.0
" "	0.0
Comp. Tank Filtered	19.0
" "	19.0
Shield T0 Filtered	21.0
T30	14.0
T60	13.0
T60 DW	13.0
Unsealed T0	23.0
T30	14.0
T60	14.0
Drive-maxx T0	48.0
T30	14.0
T60	13.0
Std 62.5	59.0
Std 25.0	24.0
DI Filtered	0.0
Comp. Tank Filtered	16.0
" "	16.0
Shield - 1	16.0
2	17.0
3	16.0
Unsealed - 1	17.0
2	17.0
2 DW	17.0
Drive-maxx - 1	16.0
2	17.0
3	17.0

All samples
pH ~~6.8~~ 7.6 ± ~~0.5~~ 0.05

11-3-09 Filtered samples

11-4-09 Filtered samples

118

11-19-09 WA 2-2 Continue colur λ 465.0 4P

Sample ID	Cond. PtCo.
Std 62.5	58.0
Std 25.0	26.0
Std 10.0	10.0
DI Filtered	0.0
Comp. Tank Filtered	24.0
" "	25.0
Shield -1 Filtered	26.0
2	26.0
3	26.0
Unsealed -1	21.0
2	21.0
2 2	21.0
Drive-maxx-1	34.0
2	33.0
3	34.0
Std. 25.0	26.0
Std. 10.0	10.0
DI Filtered	0.0
Std. 62.5	60.0

Sampling 11-10-09
Filtered samples
pH 6.8 ± 0.05
7.6

12-7-09 WA 2-2 Color sampling event 119

λ 465 12-3-09 4P

Sample ID / Std. in. Pt-Co. unit	Conc. in Pt-Co. unit
0.0	0.0
500.0	489
250.0	243.0
125.0	122.0
62.5	64.0
50.0	49.0
25.0	26.0
20.0	20.0
10.0	11.0
D.I. H2O Unfilt.	0.0
Comp. Tank Unfilt. 1	68.0
" " 2	68.0
Shield - Unfilt. 1	47.0
2	46.0
3	47.0
Unseated - 1 Unfilt.	30.0
2	30.0
2 Dwl	30.0
Drive Maxx Unfilt. 1	35.0
2	35.0
3	37.0
Std. 62.5	63.0
Std. 25.0	24.0
DI Filtered.	0.0
Comp. Tank Filtered 1	44.0
" " 2	44.0
Shield Filt. 1	19.0
2	19.0
3	19.0
Unseated Filt. - 1	11.0
2	11.0
2 Dwl	11.0
Drive Maxx Filt. 1	11.0
2	11.0
3	11.0
Std. 62.5	64.0
Std. 25.0	25.0
Std. 10.0	10.0

All samples ph adjusted to 7.6 ± 0.05 4D

12-3-09 samples unfiltered

12-3-09 Filtered samples

120

12-8-09

COD WA 2-2 sampling 12-3-09 4P.

1 420

Sample std. in ppm		ID #	ABS	Conc DF	~~DF~~ Conc. ppm	Comments
0.0			0.0			
10.0			-0.034			LCS P076516
25.0			-0.082			TV = 174.0 ppm
50.0			-0.176			Reg. 0.9969
70.0			-0.246			
100.0			-0.318			
150.0			-0.477			
LCS		—	-0.280	x2.	172.6	
Composite	Tank	5381	-0.072		20.5	
"	"	5382	-0.067		18.96	
"	SK	5382	-0.235		71.84	SK = 50 PPM
Shield -	1	5372	-0.072			
	2	5373	-0.070			
	3	5374	-0.070			
Unsealed -	1	5354	-0.064			
	2	5355	-0.070			
	2 Dup	5355	-0.073			
Drive maxx -	1	5362	-0.076			
	2	5363	-0.076			
	3	5364	-0.070			
LCS		—	-0.282	x2		
LCS		—	-0.281	x2		

4.15.10 Colur λ 465

Hack DR 2500 Program -125

Sample ID	Conc. in Pt. Co Unit.
0.0	0.0
500.0	
250.0	253.0
125.0	120.0
~~62.5~~ 60	57.0
50.0	50.0
25.0	24.0
20.0	19.0
10.0	11.0
DI H_2O UnFilt.	0.0
Shield UnFil. 1	110.0
2	108.0
3	109.0
Unsealed 1	98
2	98
2 and	100
Drive Maxx - 1	96
2	98
3	97
Std. ~~62.5~~ 60	56
Std. 25.0	24
DI Filt.	0.0
Shield Filt. 1	102
2	104
3	103
Unsealed Filt. 1	75
2	79
2 and	79
Drive Maxx - 1	90
Filt. 2	92
3	98
Std. ~~62.5~~ 60	56
25.0	24
~~10.0~~	

Std	Con
80.	82
40	37

pH Adjusted on All sample to 7.6 ± 0.05 pH

Samples were filtered using 0.8 μ Fill Paper

4.20.10 COD λ 420 WA 2-2 sealent 4.14.10 sampling & WA 2-4 4.9.10 & 4.17.10 sampling

Sample ID Stating ppm	Conc ABS	DF	Conc.	Comments
0.0	0.0			Rg 0.9968
10.0	-0.032			
25.0	-0.079			LCS Lot #P076516
50.0	-0.184			TV = 174.0 ppm
70.0	-0.243			
100.0	-0.328			
150.0	-0.483			
LCS	-0.295	x2	178.8	
Blank	0.00			
Field Bk.	-0.001			
Unsealed 1-1	-0.147			WA 2-2 sealent 4.14.10 sampling
" 1-2	-0.154			
Shield 1-1	-0.108			
1-2	-0.105			
1-3	-0.107		31.4	
1-3 Sk.	-0.167		56.0	Sk = 25 ppm
Drive maxx 1-1	-0.300			
1-2	-0.292			
1-3	-0.292			
1-3 DW	-0.297			
LCS	-0.296	x2		
Rain H2O 1-1	-0.087			Sk = 50 ppm
1-2	-0.082			
1-2 Sk	-0.0271			
PP 1-1	-0.098			WA 2-4 4-9-10 sampling
1-2	-0.102			
2-1	-0.104			
2-2	-0.111			
3-1	-0.124			
3-2	-0.129			
4-1	-0.115			
4-2	~~-0.102~~ 0.102			
4-2 DW	-0.110			
LCS	-0.292	x2		
PC 2-1	-0.138			
2-2	-0.141			
3-1	-0.140			
3-2	-0.135			
4-1	-0.145			
4-2	-0.153			
4-2 DW	-0.149			

4-22-10 Color A 46 Prog. # 125 135

WA 2-2 4.21-10 Sampling 4l

Sample ID	Conc. in Pt. Co Unit.
Std 0-0	
250	257
125	124
60	63
50	49
25	26
20	21
10	11
DI H2O Un Fit.	0.0
Rain H2O Un Fit.	58
Shield Un Fit. To	167
T30-1	37
T-30.2	37
T-60	41
Strong seal To	89
T30	72
T60	60
Std 50	54
~~Std 10~~	
DI H2O Filt.	0
Rain H2O Fit.	48
Shield Filt. To	122
T30-1	42
T30-2	40
T-60	42
Strong seal Filt. T-0	60
T30	32
T-60	45
Std 50	50
Std 10	10

All Samples Adjusted to pH 7.6±0.05 4l

Samples were filtered using 0.8 μm Filter Paper