

Sacramento

FAX NO. 916 372 7768

P. 02

STL EDISON

Client Sample ID: V976-346102

Trace Level Organic Compounds

Lot-Sample #...: G28030343-001
 Date Sampled...: 05/02/02
 Prep Date...: 05/07/02
 Prep Batch #...: 2127093
 Dilution Factor: 1

Work Order #...: EOXRA1AA
 Date Received...: 05/03/02
 Analysis Date...: 05/08/02

Matrix.....: WATER

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	3.1	pg/L	EPA-5 1613B
1,2,3,7,8-PeCDD	ND	6.0	pg/L	EPA-5 1613B
1,2,3,4,7,8-HxCDD	ND	4.9	pg/L	EPA-5 1613B
1,2,3,6,7,8-HxCDD	ND	5.1	pg/L	EPA-5 1613B
1,2,3,7,8,9-HxCDD	ND	4.3	pg/L	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	ND	12	pg/L	EPA-5 1613B
OCDD	110 J		pg/L	EPA-5 1613B
2,3,7,8-TCDF	ND	2.8	pg/L	EPA-5 1613B
1,2,3,7,8-PeCDF	ND	3.8	pg/L	EPA-5 1613B
2,3,4,7,8-PeCDF	ND	4.4	pg/L	EPA-5 1613B
1,2,3,4,7,8-HxCDF	ND	3.7	pg/L	EPA-5 1613B
1,2,3,6,7,8-HxCDF	ND	3.4	pg/L	EPA-5 1613B
2,3,4,6,7,8-HxCDF	ND	2.8	pg/L	EPA-5 1613B
1,2,3,7,8,9-HxCDF	ND	2.6	pg/L	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	ND	6.9	pg/L	EPA-5 1613B
1,2,3,4,7,8,9-HpCDF	ND	3.6	pg/L	EPA-5 1613B
OCDF	ND	6.6	pg/L	EPA-5 1613B

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	57	(25 - 164)
13C-1,2,3,7,8-PeCDD	53	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	49	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	52	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	61	(23 - 140)
13C-OCDD	59	(17 - 157)
13C-2,3,7,8-TCDF	59	(24 - 169)
13C-1,2,3,7,8-PeCDF	53	(24 - 185)
13C-2,3,4,7,8-PeCDF	48	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	47	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	50	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	54	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	56	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	55	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	58	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	90	(35 - 197)

NOTE(S):

J Estimated result. Result is less than the reporting limit.

Sacramento

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QC DATA ASSOCIATION SUMMARY**G2E030343****Sample Preparation and Analysis Control Numbers**

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS ROW#</u>
001	WATER	EPA-5 1613B		2127093	

CITY_21MC100_003064324

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: G2E030343
MS Lot-Sample #: G2E070000-093

Work Order #...: E01PT1AA

Matrix.....: WATER

Analysis Date...: 05/08/02
Dilution Factor: 1

Prep Date.....: 05/07/02

Prep Batch #...: 2127093

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	3.2	pg/L	EPA-5 1613B
1,2,3,7,8-PeCDD	ND	6.6	pg/L	EPA-5 1613B
1,2,3,4,7,8-HxCDD	ND	3.4	pg/L	EPA-5 1613B
1,2,3,6,7,8-HxCDD	ND	3.7	pg/L	EPA-5 1613B
1,2,3,7,8,9-HxCDD	ND	3.1	pg/L	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	ND	2.4	pg/L	EPA-5 1613B
OCDD	ND	8.8	pg/L	EPA-5 1613B
2,3,7,8-TCDF	ND	3.2	pg/L	EPA-5 1613B
1,2,3,7,8-PeCDF	ND	4.6	pg/L	EPA-5 1613B
2,3,4,7,8-PeCDF	ND	4.9	pg/L	EPA-5 1613B
1,2,3,4,7,8-HxCDF	ND	2.4	pg/L	EPA-5 1613B
1,2,3,6,7,8-HxCDF	ND	2.1	pg/L	EPA-5 1613B
1,2,3,4,6,7,8-HxCDF	ND	1.7	pg/L	EPA-5 1613B
1,2,3,7,8,9-HxCDF	ND	1.8	pg/L	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	ND	2.1	pg/L	EPA-5 1613B
1,2,3,4,7,8,9-HpCDF	ND	2.4	pg/L	EPA-5 1613B
OCDF	ND	3.4	pg/L	EPA-5 1613B

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	42	(25 - 164)
13C-1,2,3,7,8-PeCDD	44	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	51	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	54	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	64	(23 - 140)
13C-OCDD	68	(17 - 157)
13C-2,3,7,8-TCDF	41	(24 - 183)
13C-1,2,3,7,8-PeCDF	43	(24 - 185)
13C-2,3,4,7,8-PeCDF	43	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	50	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	52	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	56	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	53	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	61	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	67	(26 - 138)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	85	(35 - 197)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #....: G2B030343 Work Order #....: E01PT1AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: G2B070000-093 E01PT1AD-LCS
 Prep Date.....: 05/01/02 Analysis Date...: 05/08/02
 Prep Batch #....: 2127093
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
2,3,7,8-TCDD	200	207	pg/L	104		EPA-5 1613B
	200	210	pg/L	105	1.6	EPA-5 1613B
1,2,3,7,8-PeCDD	1000	1040	pg/L	104		EPA-5 1613B
	1000	1050	pg/L	105	0.26	EPA-5 1613B
1,2,3,4,7,8-HxCDD	1000	1030	pg/L	103		EPA-5 1613B
	1000	1070	pg/L	107	4.0	EPA-5 1613B
1,2,3,6,7,8-HxCDD	1000	1020	pg/L	102		EPA-5 1613B
	1000	930	pg/L	93	9.1	EPA-5 1613B
1,2,3,7,8,9-HxCDD	1000	1030	pg/L	103		EPA-5 1613B
	1000	1020	pg/L	102	1.0	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	1000	987	pg/L	99		EPA-5 1613B
	1000	978	pg/L	97	1.3	EPA-5 1613B
OCDD	2000	2010	pg/L	100		EPA-5 1613B
	2000	2020	pg/L	101	0.91	EPA-5 1613B
2,3,7,8-TCDF	200	188	pg/L	94		EPA-5 1613B
	200	186	pg/L	93	0.69	EPA-5 1613B
1,2,3,7,8-PeCDF	1000	979	pg/L	98		EPA-5 1613B
	1000	1000	pg/L	100	2.4	EPA-5 1613B
2,3,4,7,8-PeCDF	1000	989	pg/L	99		EPA-5 1613B
	1000	1010	pg/L	101	1.6	EPA-5 1613B
1,2,3,4,7,8-HxCDF	1000	1050	pg/L	105		EPA-5 1613B
	1000	1020	pg/L	102	3.7	EPA-5 1613B
1,2,3,6,7,8-HxCDF	1000	1020	pg/L	102		EPA-5 1613B
	1000	1030	pg/L	103	1.2	EPA-5 1613B
2,3,4,6,7,8-HxCDF	1000	971	pg/L	97		EPA-5 1613B
	1000	968	pg/L	97	0.36	EPA-5 1613B
1,2,3,7,8,9-HxCDF	1000	1010	pg/L	101		EPA-5 1613B
	1000	987	pg/L	99	2.3	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	1000	1020	pg/L	102		EPA-5 1613B
	1000	1000	pg/L	100	1.7	EPA-5 1613B
1,2,3,4,7,8,9-HpCDF	1000	1020	pg/L	102		EPA-5 1613B
	1000	1050	pg/L	105	3.1	EPA-5 1613B
OCDF	2000	1930	pg/L	96		EPA-5 1613B
	2000	1960	pg/L	98	1.0	EPA-5 1613B

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LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #....: G2E030343 Work Order #....: E01PT1AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: G2E070000-093 E01PT1AD-LCSD

<u>INTERNAL STANDARD</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	56	(25 - 164)
	58	(25 - 164)
13C-1,2,3,7,8-PeCDD	69	(25 - 181)
	63	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	72	(32 - 141)
	67	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
	82	(23 - 140)
13C-OCDD	90	(17 - 157)
	85	(17 - 157)
13C-2,3,7,8-TCDF	65	(24 - 169)
	57	(24 - 169)
13C-1,2,3,7,8-PeCDF	70	(24 - 185)
	61	(24 - 185)
13C-2,3,4,7,8-PeCDF	69	(21 - 178)
	60	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	83	(28 - 143)
	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)
	76	(26 - 138)
<u>SUBROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	90	(35 - 197)
:	92	(35 - 197)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT
Trace Level Organic Compounds

Client Lot #...: G2E030343 Work Order #...: E01PT1AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: G2E070000-093 E01PT1AD-LCSD
 Prep Date.....: 05/07/02 Analysis Date...: 05/08/02
 Prep Batch #...: 2127093
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
2,3,7,8-TCDD	104	(67 - 158)			EPA-5 1613B
	105	(67 - 158)	1.6	(0-50)	EPA-5 1613B
1,2,3,7,8-PeCDD	104	(70 - 142)			EPA-5 1613B
	105	(70 - 142)	0.26	(0-50)	EPA-5 1613B
1,2,3,4,7,8-HxCDD	103	(70 - 164)			EPA-5 1613B
	107	(70 - 164)	4.0	(0-50)	EPA-5 1613B
1,2,3,6,7,8-HxCDD	102	(76 - 134)			EPA-5 1613B
	93	(76 - 134)	9.1	(0-50)	EPA-5 1613B
1,2,3,7,8,9-HxCDD	103	(64 - 162)			EPA-5 1613B
	102	(64 - 162)	1.0	(0-50)	EPA-5 1613B
1,2,3,4,6,7,8-HpCDD	99	(70 - 140)			EPA-5 1613B
	97	(70 - 140)	1.3	(0-50)	EPA-5 1613B
OCDD	100	(78 - 144)			EPA-5 1613B
	101	(78 - 144)	0.91	(0-50)	EPA-5 1613B
2,3,7,8-TCDF	96	(75 - 158)			EPA-5 1613B
	93	(75 - 158)	0.69	(0-50)	EPA-5 1613B
1,2,3,7,8-PeCDF	98	(80 - 134)			EPA-5 1613B
	100	(80 - 134)	2.4	(0-50)	EPA-5 1613B
2,3,4,7,8-PeCDF	99	(68 - 160)			EPA-5 1613B
	101	(68 - 160)	1.6	(0-50)	EPA-5 1613B
1,2,3,4,7,8-HxCDF	105	(72 - 134)			EPA-5 1613B
	102	(72 - 134)	3.7	(0-50)	EPA-5 1613B
1,2,3,6,7,8-HxCDF	102	(84 - 130)			EPA-5 1613B
	103	(84 - 130)	1.2	(0-50)	EPA-5 1613B
2,3,4,6,7,8-HxCDF	97	(70 - 156)			EPA-5 1613B
	97	(70 - 156)	0.36	(0-50)	EPA-5 1613B
1,2,3,7,8,9-HxCDF	101	(78 - 130)			EPA-5 1613B
	99	(78 - 130)	2.3	(0-50)	EPA-5 1613B
1,2,3,4,6,7,8-HpCDF	102	(82 - 122)			EPA-5 1613B
	100	(82 - 122)	1.7	(0-50)	EPA-5 1613B
1,2,3,4,7,8,9-HpCDF	102	(78 - 138)			EPA-5 1613B
	105	(78 - 138)	3.1	(0-50)	EPA-5 1613B
OCDF	96	(63 - 170)			EPA-5 1613B
	98	(63 - 170)	1.8	(0-50)	EPA-5 1613B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: G2E030343 Work Order #...: E01PTLAC-LCS Matrix.....: WATER
 LCS Lot-Sample#: G2E070000-093 E01PT1AD-LCSD

<u>INTERNAL STANDARD</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	66	(25 - 164)
	88	(25 - 164)
13C-1,2,3,7,8-PeCDD	69	(25 - 181)
	63	(25 - 181)
13C-1,2,3,4,7,8-HxCDD	72	(32 - 141)
	67	(32 - 141)
13C-1,2,3,6,7,8-HxCDD	79	(28 - 130)
	74	(28 - 130)
13C-1,2,3,4,6,7,8-HpCDD	87	(23 - 140)
	82	(23 - 140)
13C-OCDD	90	(17 - 157)
	85	(17 - 157)
13C-2,3,7,8-TCDF	65	(24 - 169)
	57	(24 - 169)
13C-1,2,3,7,8-PeCDF	70	(24 - 185)
	61	(24 - 185)
13C-2,3,4,7,8-PeCDF	69	(21 - 178)
	60	(21 - 178)
13C-1,2,3,4,7,8-HxCDF	72	(26 - 152)
	67	(26 - 152)
13C-1,2,3,6,7,8-HxCDF	75	(26 - 123)
	71	(26 - 123)
13C-2,3,4,6,7,8-HxCDF	80	(28 - 136)
	76	(28 - 136)
13C-1,2,3,7,8,9-HxCDF	77	(29 - 147)
	73	(29 - 147)
13C-1,2,3,4,6,7,8-HpCDF	83	(28 - 143)
	78	(28 - 143)
13C-1,2,3,4,7,8,9-HpCDF	82	(26 - 138)
	76	(26 - 138)
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	90	(35 - 197)
	92	(35 - 197)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Red print denotes control parameters