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**City of Sedona
Class A+ Reclaimed Water Injection Well Test**

**TECHNICAL MEMORANDUM NO. 2
CONSTITUENTS OF EMERGING CONCERN
WATER QUALITY EVALUATION
PHASE II**

**FINAL
February 2014**

City of Sedona

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WATER QUALITY EVALUATION**

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CONSTITUENTS OF EMERGING CONCERN WATER QUALITY EVALUATION

1.0 INTRODUCTION

The City of Sedona (City) is in the process of conducting an injection well test to verify the feasibility of aquifer injection (storage) as a water resource management strategy. This strategy involves storing reclaimed water in the aquifer at a depth of 600 feet to 1,200 feet below ground surface. An Underground Storage Facility (USF) permit will be utilized to account for stored water, which may allow the City to accumulate and recover groundwater credits in the future.

The stored water is Class A+ reclaimed water from the City's Wastewater Reclamation Plant (WWRP). Class A+ is the highest reclaimed water quality classification regulated by Arizona Department of Environmental Quality (ADEQ). The City is required to treat the wastewater stream to a high level of water quality in accordance with the WWRP's Aquifer Protection Permit (APP) issued by ADEQ, which requires that the groundwater at the edge of the WWRP property (or point of compliance, POC) to meet established Aquifer Water Quality Standards (AWQS) nearly equivalent to drinking water standards. Hence, the WWRP closely monitors the water quality of the Class A+ reclaimed water to ensure that all contaminant levels in the treated effluent are below the discharge limits set forth in the permit to protect groundwater quality. Regulated constituents include pathogens, nitrogen, metals, volatile organic compounds (VOCs), and other parameters.

1.1 Constituents of Emerging Concern

In addition to routine monitoring for regulated water quality parameters, the City has also performed sampling to assess the water quality for presently unregulated constituents of emerging concern (CECs). CECs is a general term for water quality constituents whose potential for health impacts is unknown, and are currently unregulated by the Federal Environmental Protection Agency (EPA) or the State of Arizona. CECs include compounds such as pharmaceuticals, personal care products (such as those found in lotions and shampoo, for example), food additives (caffeine, artificial sweeteners), and other consumer chemicals. The occurrence, fate and transport, and potential health effects of a wide array of these compounds have been the subject of intense scientific study over the last two decades, and industry consensus is that most CECs do not present a human health concern at the minimal concentrations found in high-quality reclaimed water. By way of reference, an average cup of coffee contains caffeine at a concentration of 1 gram per liter (g/L) or more. By the time wastewater has undergone basic and advanced treatment, similar to treatment performed at the Sedona WWRP, the concentration of caffeine measures in nanograms per liter (ng/L), which is approximately **one billion** times lower.

Recent work by Trussell et al (2013), which was validated through a national expert panel review, provides more specific guidelines on the concentrations of CECs that might be relevant for human health in a potable reuse context (treating reclaimed water for potable uses). As a conservative approach, the data produced by this injection study are reviewed in the context of these benchmarks (although the City is not planning this project for potable reuse applications). In addition, many CECs are typically further reduced in the aquifer by naturally-occurring biological processes, known as soil-aquifer treatment.

1.2 Sedona WWRP CEC Study

The CEC study was motivated by questions about how the storage of reclaimed water with trace levels of CECs may impact the existing groundwater quality. In this study, the City investigated the levels of CECs in the influent wastewater to the WWRP, the Class A+ reclaimed water (WWRP effluent), native (up gradient) groundwater in the area of the WWRP, and the groundwater at the current POC located down gradient from the injection test well. CECs selected for this evaluation include a wide array of compounds for which currently sensitive and reliable detection and quantification methods have been developed. The CECs investigated comprise pharmaceutical and personal care product (PPCP) compounds, natural and synthetic hormones, nitrosamines, fire retardants, and other chemicals contained in food, beverages, and consumer products. Samples were sent to one or both of two national laboratories (University of Arizona Snyder Laboratory and Eaton Analytical) that specialize in the analysis of CECs in environmental aqueous samples and that routinely conduct such analyses for municipalities in the U.S.

2.0 BACKGROUND

The infiltration and underground storage of reclaimed water into local aquifers has become a practice for a number of municipalities in the U.S. over the last decades as a critical strategy to realize local water management objectives including effluent management, groundwater replenishment, and establishing barriers against seawater intrusion into freshwater aquifers. Existing injection well systems are currently in operation in multiple areas of the country, including California, Arizona, and Florida. The main focus for managers and operators of these systems, regulators, and other public stakeholders when implementing and operating such systems is to preserve the quality of local groundwater resources. The key constituents of concern that are addressed in water quality monitoring studies are organics and disinfection byproducts, microbial pathogens, nutrients, salts, and organic trace pollutants, or CECs. The regulatory framework for groundwater replenishment systems, which include reclaimed water infiltration and injection into groundwater aquifers, varies by state.

While CECs are broadly recognized by many stakeholders to be an emerging concern, regulation of these compounds continues to remain a significant challenge for national and state regulators. In contrast to nutrients or pathogens, the environmental and human health

effects of CECs, that comprise hundreds of trace organic compounds that can be detected in water and traced to anthropogenic influence, simply are not yet fully understood. For the large majority of compounds that we can detect in treated effluents and the aqueous environments it is still uncertain a) whether they have an effect on humans or aquatic life at environmental concentrations, and b) what the cause - effect relationship is.

With regards to CECs, the state of California has been a frontrunner in the U.S. in establishing regulations to manage the risk from CECs in groundwater replenishment operations. The California State Water Resources Control Board (CSWRCB) adopted in January 2013 an amendment to the California Recycled Water Policy (CSWRCB, 2013), which establishes monitoring requirements for CECs and surrogates in reclaimed water used for groundwater recharge.

3.0 PURPOSE OF THE SEDONA CEC WATER QUALITY EVALUATION

The Sedona CEC water quality evaluation was conducted to better understand the potential impact of storing reclaimed water underground on the overall quality of the local aquifer. Specifically, this project has the following objectives:

1. Characterize the reclaimed water proposed for aquifer storage in terms of CEC presence and concentration levels;
2. Characterize the local aquifer in terms of its current water quality related to CECs prior to operation of the reclaimed water injection test;
3. Compare the reclaimed water quality to the groundwater quality in a well that is partially influenced by current reclaimed water infiltration operations (point of compliance);
4. Identify any compounds that may be present in the reclaimed water at concentration levels that may pose a concern for human health, based on current research; and
5. Identify compounds in the reclaimed water and groundwater system that may serve as useful tracers in the future to indicate the presence and level of influence of groundwater that originated from reclaimed water in the local aquifer.

4.0 TEST PLAN

4.1 Selected Analytes

The sampling campaign comprised a total of 112 CEC compounds. The specific CECs selected for this evaluation are commonly present in municipal wastewater influents and treated effluents, and/or may pose a potential human health concern depending on their concentration levels. Table 2.1 lists the CEC compounds for which samples were analyzed, along with their typical uses and environmental sources. Compounds listed as “metabolites”

are formed when other CECs break down. Depending on the compound, breakdown into metabolites can occur during human digestion, within the wastewater treatment process, or in the environment.

The analyte lists also included several common herbicides, for some of which regulatory limits or advisories in drinking water have been established. These herbicides were only analyzed by one of the two laboratories used in this study (Eaton Lab).

Table 2.1 CEC Compounds and their Typical Uses Constituents of Emerging Concern Water Quality Evaluation City of Sedona	
CEC Compound	Typical Use
1,7-Dimethylxanthine	Caffeine metabolite
2,4-D	Herbicide
4-nonylphenol	Member of alkylphenol family, detergent metabolite
4-tert-Octylphenol	Member of alkylphenol family, detergent metabolite
Acesulfame-K	Artificial sweetener
Acetaminophen	Nonsteroidal anti-inflammatory drug (NSAID)
Albuterol	Bronchial dilater (active ingredient in inhalers)
Amoxicillin	Antibiotic
Androstenedione	Natural hormone
Atenolol	Beta blocker (used to treat hypertension)
Atrazine	Herbicide
Azithromycin	Antibiotic
Bendroflumethiazide	Diuretic (used to treat hypertension)
Benzophenone	UV blocker (active ingredient in sunscreen)
Benzotriazole (BTA)	Corrosion inhibitor, also used in drug manufacturing
Bezafibrate	Fibrate drug (used to treat high cholesterol)
Bisphenol A (BPA)	Breakdown product of polycarbonate, a plastic commonly used to store water and food
Bromacil	Herbicide
Butalbital	Barbiturate drug (pain medication)
Butylparaben	Member of paraben family, used in lotions and body creams
Caffeine	Stimulant found in many beverages
Carbadox	Antibacterial drug used in animal husbandry
Carbamazepine	Anti-seizure drug
Carisoprodol	Muscle relaxant drug
Chloramphenicol	Antibiotic
Chloridazon	Herbicide
Chlorotoluron	Herbicide
Cimetidine	Heartburn / Reflux drug

**Table 2.1 CEC Compounds and their Typical Uses
Constituents of Emerging Concern Water Quality Evaluation
City of Sedona**

CEC Compound	Typical Use
Clofibric Acid	Herbicide
Cotinine	Nicotine metabolite
Cyanazine	Herbicide
DACT	Atrazine degradation product (see above)
DEA	Atrazine degradation product (see above)
DEET	Insect repellent
Dehydronifedipine	Metabolite of Nifedipine (see below)
Dexamethasone	Corticosteroid drug (anti-inflammatory used to treat many conditions, including rheumatoid arthritis)
DIA	Atrazine degradation product (see above)
Diazepam (brand name Valium)	Sedative, anti-epileptic, and muscle relaxant drug +
Diclofenac	Nonsteroidal anti-inflammatory drug (NSAID)
Dilantin	Anti-epileptic drug
Diphenylhydramine	Antihistamine (brand name Benadryl)
Diltiazem	Calcium channel blocker (drug used to treat hypertension, angina, and some types of arrhythmia)
Diuron	Herbicide
Erythromycin	Antibiotic
Estradiol (E2)	Natural steroid hormone
Estrone (E1)	Natural steroid hormone
Ethinyl Estradiol - 17 α	Synthetic steroid hormone (used in birth control pills)
Ethylparaben	Member of paraben family, used in lotions and body creams
Flumequine	Antibiotic
Fluoxetine	Antidepressant drug (brand name Prozac)
Gemfibrozil	Fibrate drug (used to lower blood lipid levels)
Ibuprofen	Nonsteroidal anti-inflammatory drug (NSAID)
Iohexal (helps make x-rays more visible)	X-ray contrast medium +
Iopromide	X-ray contrast medium (helps make x-rays more visible)
Isobutylparaben	Member of paraben family, used in lotions and body creams
Isoproturon	Herbicide
Ketoprofen	Nonsteroidal anti-inflammatory drug (NSAID)
Ketorolac	Nonsteroidal anti-inflammatory drug (NSAID)

**Table 2.1 CEC Compounds and their Typical Uses
Constituents of Emerging Concern Water Quality Evaluation
City of Sedona**

CEC Compound	Typical Use
Lidocaine	Local anesthetic and anti-arrhythmic drug
Lincomycin	Antibiotic
Linuron	Herbicide
Lopressor (metoprolol)	Anti-hypertension drug
Meclofenamic Acid	Nonsteroidal anti-inflammatory drug (NSAID)
Meprobamate	Anxiolytic drug (tranquilizer)
Metazachlor	Herbicide
Methylparaben	Member of paraben family, used in lotions and body creams
Naproxen	Nonsteroidal anti-inflammatory drug (NSAID)
Nifedipine	Drug used to treat high blood pressure and angina
N-Nitrosodibutylamine (NDBA)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosodiethylamine (NDEA)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosodimethyl- amine (NDMA)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosodi-n-propyl- amine (NDPA)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosomethyl- ethyl-amine (NMEA)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosomorpholine (NMOR)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosopiperidine (NPIP)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
N-Nitrosopyrrolidine (NPYR)	Member of the nitrosamine family, formed as disinfection byproducts primarily in chloramination.
Norethisterone	Synthetic hormone (used in birth control pills)
Norgestrel	Synthetic hormone (used in birth control pills)
Oxolinic acid	Antibiotic
Pentoxifylline	Drug that improves blood flow
Perfluorobutane sulfonic acid (PFBS)	Perfluorinated chemical (PFC), breakdown product of non-stick surface coatings (Teflon®, Scotch Guard®)
Perfluorodecanoic acid (PFDA)	Perfluorinated chemical (PFC), breakdown product of non-stick surface coatings (Teflon®, Scotch Guard®)
Perfluorohexanoic acid (PFHxDA)	Perfluorinated chemical (PFC), breakdown product of non-stick surface coatings (Teflon®, Scotch Guard®)

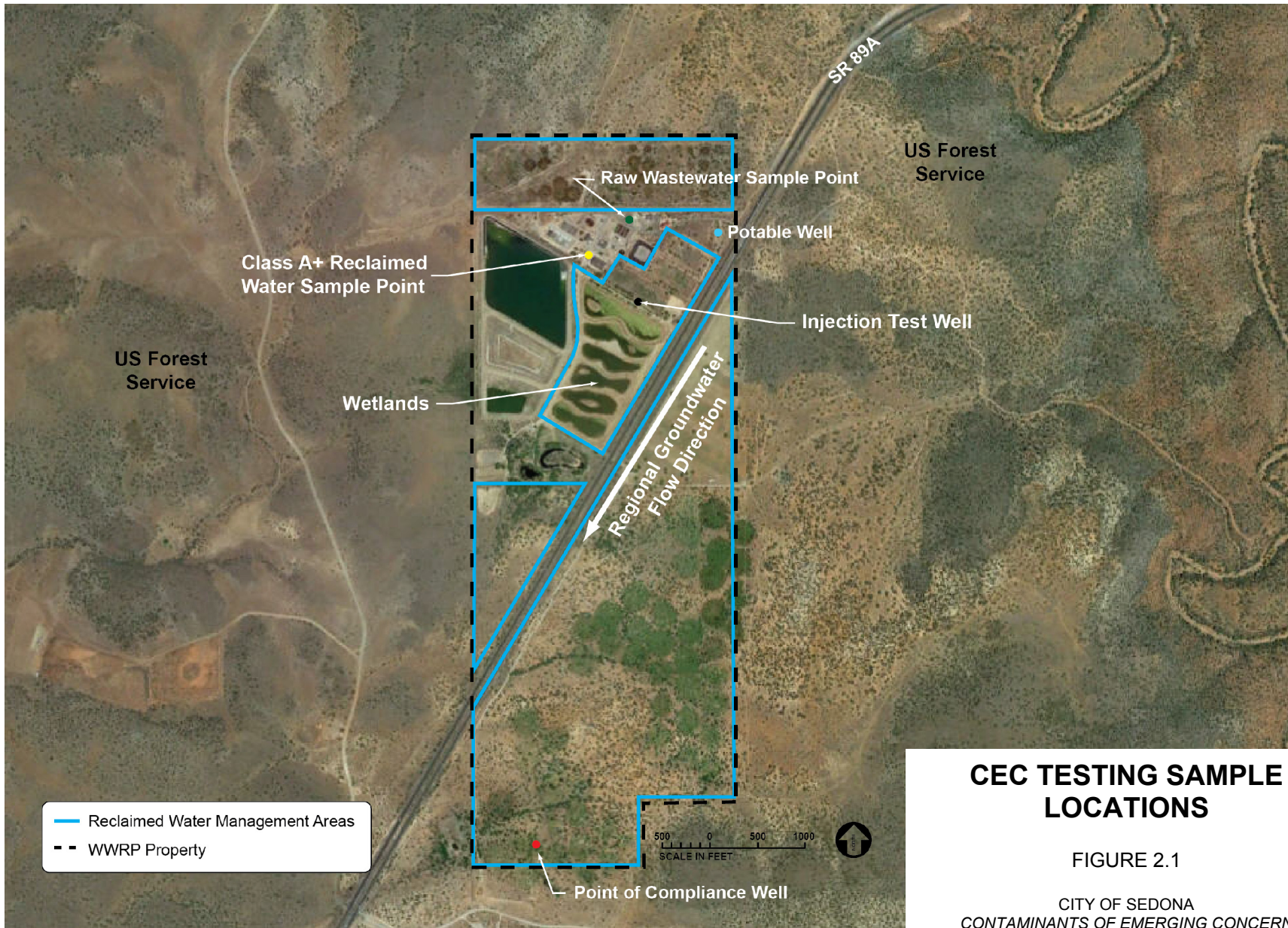
**Table 2.1 CEC Compounds and their Typical Uses
Constituents of Emerging Concern Water Quality Evaluation
City of Sedona**

CEC Compound	Typical Use
Perfluorooctanoic acid (PFOA)	Perfluorinated chemical (PFC), breakdown product of non-stick surface coatings (Teflon®, Scotch Guard®)
Perfluorootane sulfonic acid (PFOS)	Perfluorinated chemical (PFC), breakdown product of non-stick surface coatings (Teflon®, Scotch Guard®)
Phenazone	Analgesic and antipyretic drug (used to treat pain and reduce fever)
Prednisone	Synthetic corticosteroid drug (used to treat many diseases, including asthma, rheumatic, and allergic disorders)
Primidone	Anticonvulsant drug
Progesterone	Natural steroid hormone
Propazine	Herbicide
Propylparaben	Member of paraben family, used in lotions and body creams
Quinoline	Used for many purposes, also an herbicide metabolite
Simazine	Herbicide
Sucralose	Artificial sweetener
Sulfachloropyridazine	Antibiotic
Sulfadiazine	Antibiotic
Sulfadimethoxine	Antibiotic
Sulfamerazine	Antibiotic
Sulfamethazine	Antibiotic
Sulfamethizole	Antibiotic
Sulfamethoxazole	Antibiotic
Sulfathiazole	Antibiotic
Tris(2-chloroethyl) phosphate (TCEP)	Flame retardant chemical
Tris(2-chloropropyl) phosphate TCP	Flame retardant chemical
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	Flame retardant chemical
Testosterone	Natural steroid hormone
Theobromine	Chemical component of chocolate
Theophylline	Methylxanthine drug (used to treat respiratory diseases)
Triclocarban	Antimicrobial agent (used in hand soaps)
Triclosan	Antimicrobial agent (used in hand soaps)
Trimethoprim	Antibiotic
Warfarin	Anticoagulant (prevents blood clots), aka Coumadin

4.2 Sample Locations

Figure 2.1 illustrates the CEC sample locations relative to the WWRP. Note that reclaimed water management practices (i.e., spray irrigation and/or infiltration) have historically occurred within the blue areas. Sample locations were selected to assess CEC levels in the raw wastewater, treated reclaimed water, native groundwater, and “down-gradient” groundwater (prior and subsequent to the injection test). Table 2.2 summarizes the sample locations and the sampling plan.

Table 2.2 CEC Sample Locations and Sample Plan		Constituents of Emerging Concern Water Quality Evaluation			
City of Sedona		Phase II			
Sample Location	Significance of Sample Location	Phase I¹	Pre-Test	Mid-Test²	End of Test³
Raw Wastewater	Measures CECs in untreated sewage	X			
Class A+ Reclaimed Water	Measures CECs in water used for aquifer storage	X	X	X	X
Native Groundwater (Potable Well)	Measures background CEC levels in aquifer up-gradient of reclaimed water management areas.	X			
Native Groundwater (Injection Well)	Measures background CEC levels in aquifer prior to the injection well test.		X		
Point of Compliance Well	Measures CECs in groundwater “down-gradient” of aquifer storage	X		X	X
Note:					
(1) Phase I sampling occurred prior to the start of the injection well test.					
(2) Samples taken after approximately 5 weeks of injection testing					
(3) Samples taken after approximately 13 weeks of injection testing					



CEC TESTING SAMPLE LOCATIONS

FIGURE 2.1

CITY OF SEDONA
 CONTAMINANTS OF EMERGING CONCERN
 WATER QUALITY EVALUATION

4.3 Sampling Protocol

As standard analytical methods have not been formally adopted for unregulated CECs, duplicate sample sets of the grab samples from all four sampling locations in Phase I were sent to, and analyzed by, two independent contract laboratories as a quality assurance measure (Eurofins-Eaton Laboratory, located in Monrovia, California (Eaton Lab), and Arizona Laboratory for Emerging Contaminants run by Dr. Shane Snyder at the University of Arizona in Tucson (Snyder Lab)). Results proved to be generally consistent, and therefore, Phase II CEC samples were sent only to Eaton Labs.

The samples were collected as grab samples and immediately shipped on ice overnight to the analytical laboratories. Sampling protocols were provided by both laboratories, which were used by WWRP staff during the sampling activities. The protocols are included in Appendix A for reference. In addition, the labs also analyzed Quality Assurance/Quality Control (QA/QC) samples.

4.4 Laboratory Analysis

The full laboratory reports are included in Appendix B. Both laboratories employed the same method for CEC quantification, which is based on isotope dilution and solid phase extraction (SPE) followed by liquid chromatography and mass spectrometry in tandem (LC MS/MS). Eight of the 112 compounds (nitrosamine group) were analyzed using the EPA Method 521 for the Detection of Nitrosamines in Drinking Water based on GC MS/MS.

Results by both laboratories were reported as parts per trillion (ng/L) for all compounds analyzed. Both laboratories also reported the Method of Reporting Limit (MRL, the lowest concentration of an analyte in a sample that can be quantified with acceptable precision and accuracy) for each compound analyzed (see Appendix B), though the Eaton Lab denotes the MRL as a “detection limit” with compounds showing as “not detected” or ND if results are less than the MRL. The method detection limit (MDL) is the minimum concentration at which a compound can be detected in a sample, not necessarily reliably quantified. Due to the analytical challenges associated with analyzing for CECs, the ratio between MRL reported on laboratory reports and the MDL determined by the lab can range anywhere from less than 1 to 5.

A comparison to CEC monitoring recently mandated in California confirms that the labs’ MRLs are adequately protective of human health, based on the current understanding of health risks. California is the only state to promulgate specific requirements related to monitoring for CECs in reclaimed water. The California State Water Resources Control Board (CSWRCB) requires monitoring of recycled water slated for aquifer injection for a specific set of CECs indicator compounds, as shown in Table 2.3 (CSWRCB, 2013). This policy amendment was based on the advice of a national expert panel convened by the CSWRCB in 2009 (Drewes et al., 2010). With one exception (Estradiol), the MRLs provided

by both laboratories for this project meet or exceed the MDL requirements put forth by the CSWRCB.

It is important to note that these monitoring requirements apply only for scenarios intended for indirect potable reuse (i.e., aquifer storage and subsequent down-gradient recovery for drinking water supply purposes); no federal or state regulations exist at this time that require CEC monitoring for aquifer storage, as currently proposed by the City of Sedona. Therefore, while the comparison to the CSWRCB requirements is informative and the only comparison point currently available, it should be considered very conservative.

Table 2.3 List of CECs Required for Monitoring by California for Potable Reuse via Aquifer Injection (Subsurface Application) Constituents of Emerging Concern Water Quality Evaluation City of Sedona			
CEC	Indicator Type⁽¹⁾	California MRL Requirement⁽²⁾	Sample MRL Achieved in Reclaimed Water (Snyder/Eaton)
Estradiol	Health	1 ng/L	NA ³ / 5 ng/L
Caffeine	Health / Performance	50 ng/L	4 ng/L / 5 ng/L
NDMA	Health / Performance	2 ng/L	1 ng/L / 2 ng/L
Triclosan	Health	50 ng/L	25 ng/L / 10 ng/L
DEET	Performance	50 ng/L	11 ng/L / 10 ng/L
Sucralose	Performance	100 ng/L	NA ³ / 100 ng/L
Notes:			
(1) The indicators listed by the CSWRCB (2013) are listed as health-based or performance-based indicators. Health-based indicators are included to ensure monitoring for compounds the CSWRCB has determined may have health risks. Performance-based indicators are included to assess the general performance of the treatment processes; these are not included because of health concerns.			
(2) Required MRLs as listed by CSWRCB (2013).			
(3) Parameter not measured by Snyder lab.			

5.0 RESULTS

5.1 Phase I Results

During Phase I, samples were analyzed by two laboratories, the Snyder Laboratory at the University of Arizona (Snyder) and Eaton Analytical / Eurofins Laboratory (Eaton). For Phase I, the results of the CEC testing for all compounds for which a detection was reported in one or more of the four samples are presented in Table 2.4. Of all 112 compounds analyzed, 55 compounds were detected in at least one of the field samples collected (mostly in the WWRP influent). More than 50 percent (or 57 of all 112 compounds) were not detected or quantifiable in any of the four field samples, and only 39 compounds, or 35 percent of those analyzed, were detected in the Class A+ reclaimed

water, none of which appear to present a significant health risk as will be discussed in more detail below.

Table 2.4 Phase I CEC Analysis Results Constituents of Emerging Concern Water Quality Evaluation City of Sedona					
Analyte	Laboratory⁽¹⁾	Results in ng/L⁽²⁾			
		GW⁽³⁾	POC⁽⁴⁾	Effluent⁽⁵⁾	Influent⁽⁶⁾
1,7-Dimethylxanthine	Eaton	ND	ND	51	22,000
4-tert-Octylphenol	Eaton	ND	ND	ND	2,900
Acesulfame-K	Eaton	ND	170	140	56,000
Acetaminophen	Eaton	ND	ND	ND	170,000
Amoxicillin	Eaton	ND	ND	1,200	9,200
Atenolol	Eaton/Snyder	ND	ND	220/420	1,800/ 3,030
Benzophenone	Snyder	51	41	150	1,350
Benzotriazole	Snyder	5	ND	1,530	970
Bisphenol A	Eaton/Snyder	ND	320/478	ND	340/320
Butalbital	Eaton	ND	ND	63	ND
Butylparaben	Eaton	ND	ND	ND	24
Caffeine	Eaton/Snyder	ND/2	ND/1	81/31	170,000/ 11,700
Carbamazepine	Eaton/Snyder	ND	ND	500/360	160/120
Carisoprodol	Eaton	ND	ND	140	66
Cotinine	Eaton	ND	ND	30	2,700
DEET	Eaton/Snyder	ND	ND	ND	150/190
Diazepam	Eaton	ND	ND	6	ND
Diclofenac	Eaton/Snyder	ND	ND	21/71	26/260
Dilantin	Eaton	ND	ND	56	51
Diphenylhydramine	Snyder	ND	ND	120	1,800
Ditiazem	Snyder	ND	ND	28	150
Erythromycin	Eaton	ND	ND	26	660
Estradiol	Eaton	ND	ND	ND	13

Table 2.4 Phase I CEC Analysis Results Constituents of Emerging Concern Water Quality Evaluation City of Sedona					
Analyte	Laboratory⁽¹⁾	Results in ng/L⁽²⁾			
		GW⁽³⁾	POC⁽⁴⁾	Effluent⁽⁵⁾	Influent⁽⁶⁾
Estrone	Eaton	ND	ND	ND	53
Fluoxetine	Eaton/Snyder	ND	ND	42/35	ND/77
Gemfibrozil	Eaton/Snyder	ND	ND	30/31	4,400/ 4,280
Ibuprofen	Eaton/Snyder	ND	ND	ND/6	12,000/ 27,800
Iohexal	Eaton	ND	ND	53	75
Ketoprofen	Eaton	ND	ND	ND	150
Ketorolac	Eaton	ND	ND	ND	33
Lidocaine	Eaton	ND	ND	190	250
Lincomycin	Eaton	ND	ND	ND	11
Lopressor	Eaton	ND	ND	490	970
Meprobamate	Eaton/Snyder	ND	ND	130/140	470/290
Naproxen	Eaton/Snyder	ND	ND	ND/10	7,700/ 35,000
Nifedipine	Eaton	ND	ND	ND	210
N-Nitroso-dimethylamine (NDMA)	Eaton/Snyder	ND	ND	ND	ND/2.5
N-Nitrosopiperidine (NPIP)	Eaton/Snyder	ND	ND	ND	7.2
Pentoxifylline	Eaton	ND	ND	ND	40
PFBS	Snyder	ND	ND	9	ND
PFOA	Snyder	ND	ND	38	ND
PFOS	Snyder	1	ND	2	7
Prednisone	Snyder	ND	ND	16	76
Primidone	Eaton/Snyder	ND	ND	110/120	95/120
Propylparaben	Eaton/Snyder	ND/76	ND/34	ND/200	590/1,020
Sucralose	Eaton/Snyder	ND	ND/31	43,000/ 20,900	38,000/ 20,700

Table 2.4 Phase I CEC Analysis Results Constituents of Emerging Concern Water Quality Evaluation City of Sedona					
Analyte	Laboratory⁽¹⁾	Results in ng/L⁽²⁾			
		GW⁽³⁾	POC⁽⁴⁾	Effluent⁽⁵⁾	Influent⁽⁶⁾
Sulfamethoxazole	Eaton/Snyder	ND	ND/4	350/600	1,100/ 2,000
TCEP	Eaton/Snyder	ND	ND	270/620	740/260
TCCP	Eaton/Snyder	ND/12	ND/11	470/2,320	220/520
TDCPP	Eaton	ND	ND	460	200
Theobromine	Eaton	ND	ND	640	140,000
Theophylline	Eaton	ND	ND	160	14,000
Triclocarban	Snyder	7	4	22	310
Triclosan	Eaton/Snyder	ND	ND	ND	160/1,750
Trimethoprim	Eaton/Snyder	ND	ND	100/130	350/520
Warfarin	Eaton	ND	ND	ND	7.4

Notes:

(1) Samples were sent to two analytical laboratories, Eurofins-Eaton Laboratory (Eaton Lab) and the University of Arizona Snyder Laboratory (Snyder Lab).

(2) Results are shown as provided by the analytical laboratories. Detections are shown in bold font. ND indicates the analyte was not detected above the respective method reporting limit (MRL). MRLs for each analyte are shown in the full laboratory reports provided by each laboratory (see Appendix B).

(3) GW = groundwater sample from current potable water supply well, see Figure 2.1

(4) POC = sample from point-of-compliance well for reclaimed water, see Figure 2.1

(5) Effluent = sample of Class A+ reclaimed water effluent from the WWRP, see Figure 2.1

(6) Influent = sample of wastewater influent to WWRP, see Figure 2.1

The results from both laboratories vary for some of the compounds. A relative standard variation (defined as the ratio of standard deviation and average) of 20-30 percent for CEC results in inter-laboratory comparisons is to be anticipated and typically and can range up to 50 percent for certain compounds (Vanderford et al. 2012). Higher differences in reported concentrations may be a result of differences in standard preparations, analytical methods, or recovery efficiencies. In particular, in the lower concentration ranges close to the MRLs differences are noticeable between the data sets from both laboratories. The Eaton Lab uses slightly higher MRLs compared to the Snyder Lab. This resulted in the Snyder Lab reporting detections of a small number more compounds than the Eaton Lab in samples from both groundwater sources. In most cases, the difference is simply a difference in MRL, i.e., the Snyder Lab reports a concentration that is lower than the Eaton Lab's MRL. These differences do not indicate that the two data sets are inconsistent. Therefore, samples for

Phase II testing were sent only to the Eaton laboratory. This allowed for a more complete sampling plan (see Table 2.2) during Phase II.

5.2 Phase II Results

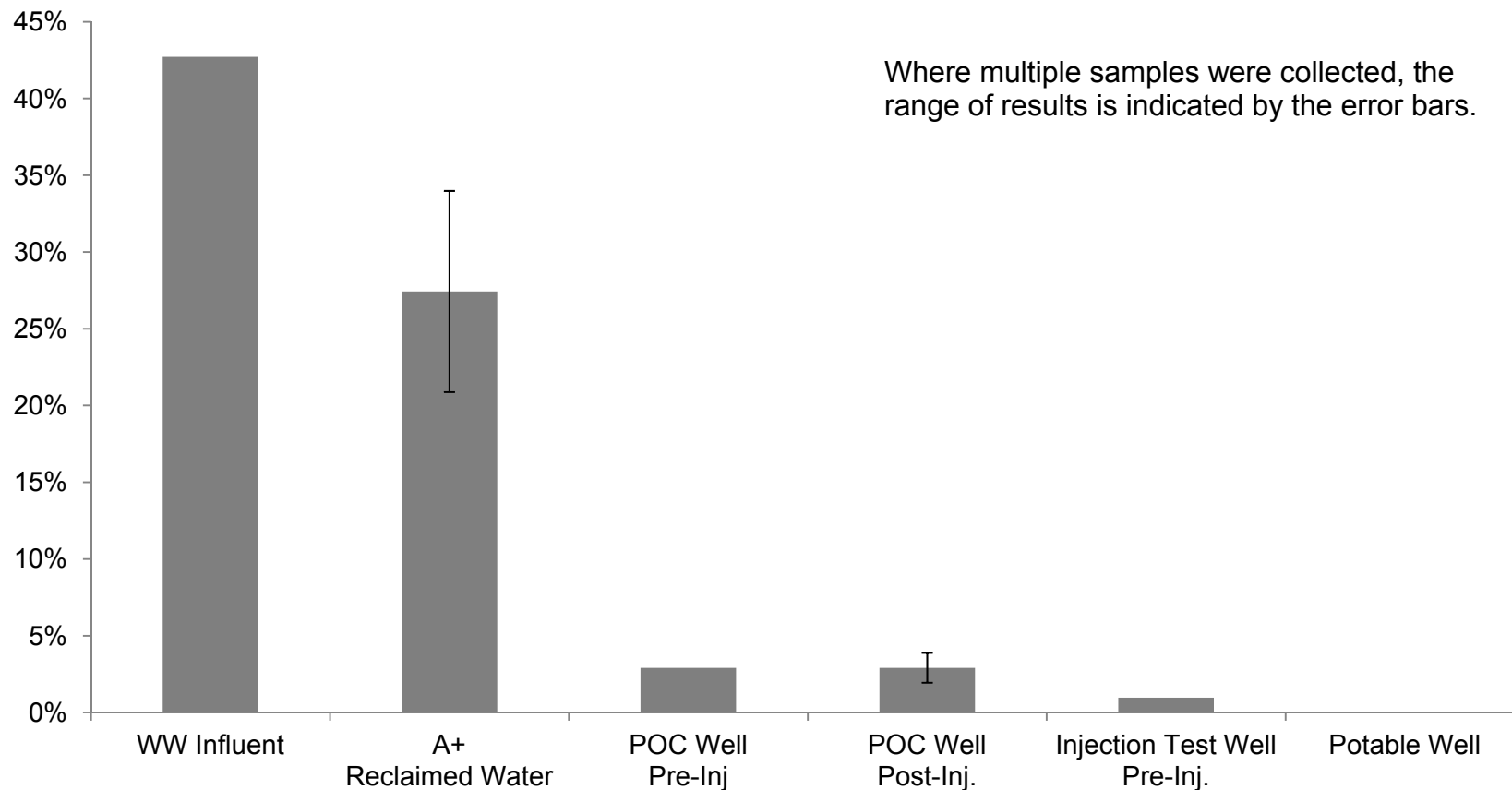
The full set of results reported by Eaton for Phases I and II are provided in Table C-1 (Appendix C). A summary of the results is also provided in Figures 2.2, 2.3, and 2.4. Figure 2.2 shows that an average of 43 percent of the compounds analyzed were detected in the wastewater influent, an average of 27 percent were detected in the A+ reclaimed water, approximately 3 percent were detected in the POC Well both before and after the injection test, and none were detected in background groundwater. A similar analysis of the concentrations illustrated in Figure 2.3 shows that the average concentration of detected compounds drops from 14,954 ng/L in the wastewater influent to 1,676 ng/L in the A+ reclaimed water, to 318 ng/L in the POC Well. This represents an 89% average reduction of CEC concentrations from raw wastewater to the A+ reclaimed water for those compounds that are detected in both. This measure underestimates the actual removal as the average concentration in the A+ reclaimed water does not include the compounds that were detected in the raw wastewater but not in the reclaimed water.

It is also interesting to evaluate the results without the artificial sweetener, sucralose, which is designed to not break down in biological systems, like the human body or, in this case, biological wastewater treatment. As a US Food and Drug Administration (FDA) approved food additive, sucralose is not considered to pose health concerns at levels encountered in this study. Figure 2.4 is identical to Figure 2.3, except that the averages shown do not include the concentrations of sucralose, which enters the WWRP at approximately 40,000 ng/L and is not degraded during treatment. With the omission of the sucralose data, the average raw wastewater concentration drops only slightly, to 14,418 ng/L, whereas the average concentration in the A+ reclaimed water drops to 182 ng/L, or a 99% removal of CECs, excluding sucralose, that are present in both samples.

5.3 Discussion

Of all 16 antibiotic drugs included in the sampling program, 11 compounds were not detected in any of the field samples. Five antibiotic drugs (Amoxicillin, Erythromycin, Lincomycin, Sulfamethoxazole, and Trimethoprim) were detected, but only in the wastewater influent and/or reclaimed water, not in any of the groundwater samples.

Of all five natural hormones included in the target compound list only Estradiol (E2) and Estrone (E1) were detected in the wastewater influent at concentrations of 13 ng/L and 53 ng/L, respectively. None was detected in the reclaimed water effluent or in the groundwater. Efficient removal of these hormones during wastewater treatment, particularly if this involves biological nitrogen removal, has been reported by others in the past (Andersen, 2003; Baronti, 2000; Joss, 2004).

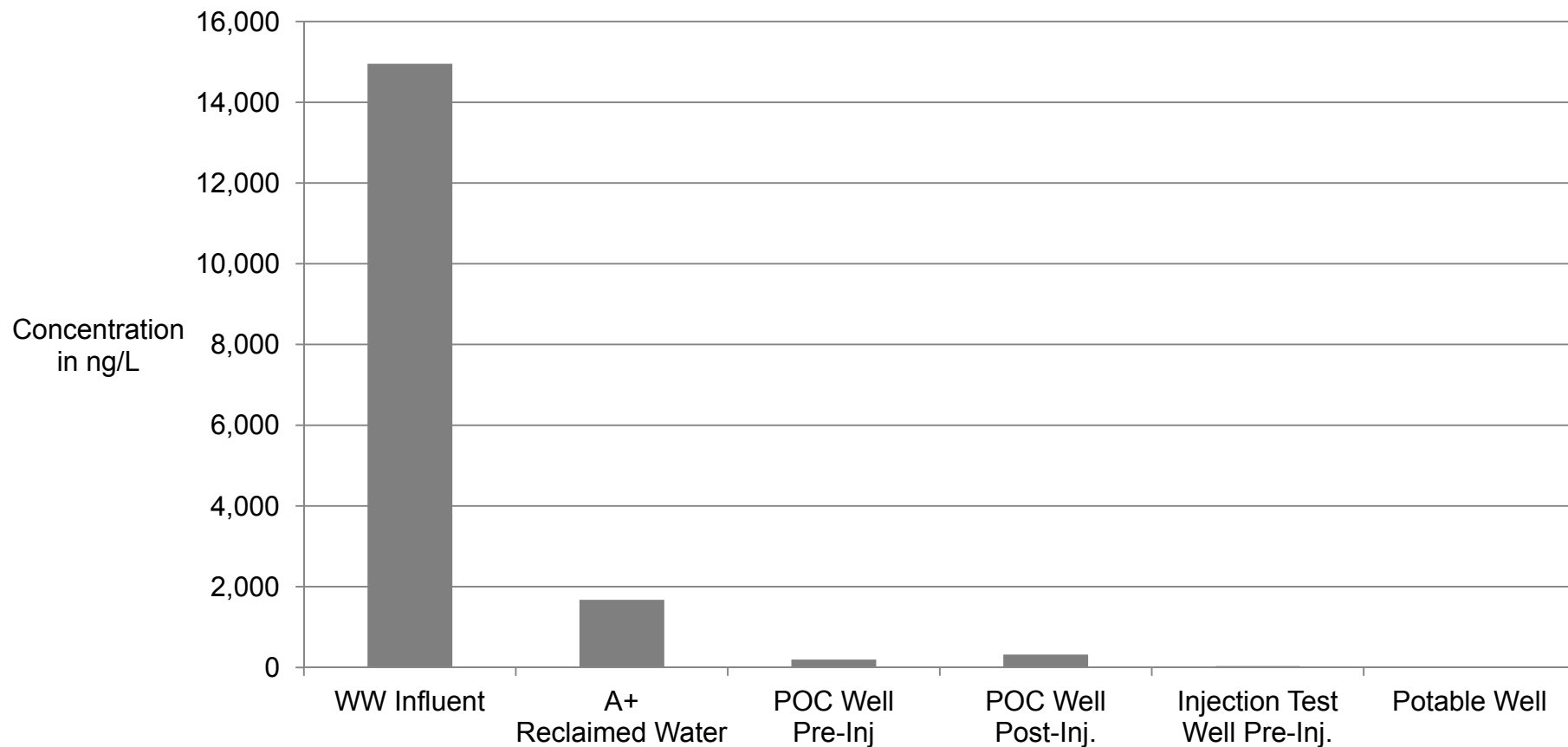


PERCENTAGE OF COMPOUNDS FOUND ABOVE THE DETECTION LIMIT BY SAMPLE LOCATION

FIGURE 2.2

CITY OF SEDONA
 CONTAMINANTS OF EMERGING CONCERN
 WATER QUALITY EVALUATION



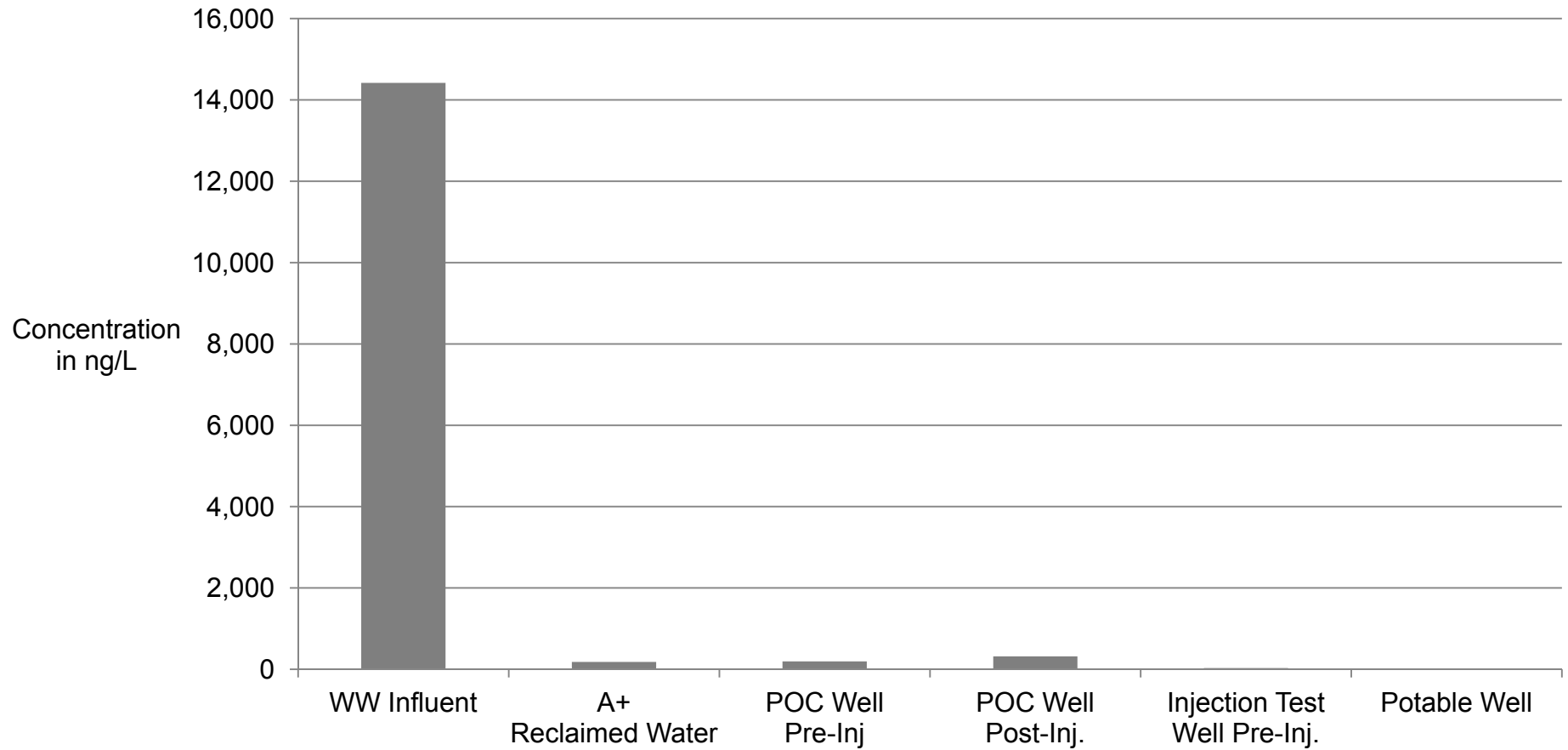


**AVERAGE CONCENTRATION OF COMPOUNDS
DETECTED BY SAMPLE LOCATION**

FIGURE 2.3

CITY OF SEDONA
CONTAMINANTS OF EMERGING CONCERN
WATER QUALITY EVALUATION





**AVERAGE CONCENTRATION OF COMPOUNDS
DETECTED EXCLUDING SUCRALOSE**

FIGURE 2.4

CITY OF SEDONA
CONTAMINANTS OF EMERGING CONCERN
WATER QUALITY EVALUATION



The synthetic hormones Norethisterone and Norgestrel used in birth control pills were not detected in any of the samples.

A more detailed discussion on the CEC results in the wastewater, reclaimed water, and groundwater samples is provided in the following sections.

5.3.1 CECs in Wastewater Influent

The wastewater influent was sampled during Phase I. As expected based on numerous previous studies of CECs in wastewater, the sample of City's wastewater influent contained a number of CECs at detectable concentrations.

The compounds with the highest concentrations in the wastewater influent sample (greater than 10,000 ng/L or 10 µg/L) are familiar to the general public. These include:

1. Caffeine (and its metabolite 1,7-Dimethylxanthine),
2. The artificial sweeteners Acesulfame-K and Sucralose,
3. The over-the-counter pain medications Ibuprofen (Advil[®]), Naproxen (Aleve[®]), and Acetaminophen (Tylenol[®]); and
4. Two components of chocolate (Theobromine and Theophylline).

Detections of caffeine, sucralose and the three painkillers in concentrations in the µg/L range in domestic wastewater influents are typical and have been reported in other studies (Stephenson and Oppenheimer, 2007; Salveson et al. 2012).

As shown in Table 2.4, the wastewater influent sample also contained additional compounds at lower concentrations, including prescription pharmaceuticals and antibiotics, synthetic and natural hormones, detergent metabolites, flame retardant chemicals, and components of sunscreen.

Each laboratory reported a low-level detection of one nitrosamine (NDMA and Npip by the Snyder and Eaton Labs respectively) in the wastewater influent sample.

5.3.2 CECs in Wastewater Effluent (Class A+ Reclaimed Water)

Both laboratories reported the presence of several CECs in the wastewater effluent sample, though generally at significantly lower concentrations than in the wastewater influent. Of the compounds with the highest influent concentrations, as listed above, significant reduction was achieved through the treatment process, as described below:

1. Caffeine and 1,7-Dimethylxanthine are each reduced by an average of 99 percent or more;
2. Acesulfame-K is reduced by over 99 percent;
3. Ibuprofen, naproxen, and acetaminophen are not detected in any reclaimed water samples, indicating a removal of at least 99.9 percent; and

4. Theobromine (detected in reclaimed water only once) and theophylline detected in reclaimed water twice) are reduced by over 99.5 percent and 98.5 percent, respectively.

The one significant exception to this trend is the artificial sweetener sucralose. Both phases of testing and samples analyzed by both laboratories indicate no significant change in concentrations between influent and effluent. Sucralose has been shown to be generally persistent during domestic wastewater treatment (Anderson et al. 2012) as this compound is, by design, an indigestible form of sugar and thus resistant to transformation both in the human body and during wastewater treatment. Acesulfame-K, which should be similarly recalcitrant to biodegradation, has been shown to be degradable by UV irradiation, whereas sucralose is not (Soh et al., 2011). The bulk of the Acesulfame-K transformation is therefore likely achieved through the recently expanded UV process step implemented at WWRP.

As shown in Table 2.4 and Table C-1, concentrations of the other CECs present at lower concentrations in the wastewater influent generally decreased as well, though the percent reductions were lower. The concentrations of the following compounds were highest (>500 ng/L) in the samples from the wastewater effluent:

1. Sucralose at an average of over 40,000 ng/L;
2. Total organophosphorus-based flame retardants (TCEP, TCPP, and TDCPP) at an average of 840 ng/L¹;
3. Benzotriazole at 1,530 ng/L²;
4. Amoxicillin (a commonly prescribed antibiotic), measured at 1,200 ng/L during Phase I but at much lower concentrations (63 ng/L or less) during Phase II; and
5. Theobromine, measured at 640 ng/L during Phase I testing but not detected in Phase II testing.

Based on a comparison of influent concentrations to effluent concentrations, the treatment process at WWRP appears to be effective at reducing the concentrations of many of the compounds, especially those that are present in the influent at higher concentrations. Sucralose, benzotriazole, and amoxicillin are the only compounds detected in the wastewater effluent at more than one part per billion (1 µg/L) concentration.

Nitrosamines were detected in only one (January 2014) of the four reclaimed water sampling events, NDMA (6.1 ng/L) and NDPA (3.9 ng/L). The concentration of NDMA is below the threshold (10 ng/L) defined by NWRI.

¹ The total organophosphorus-based flame retardant concentration omits the concentrations reported by the Snyder Lab, because the concentration of TCPP reported in the effluent is almost 5 times the reported influent concentration.

² Benzotriazole was analyzed only by the Snyder Lab. The reclaimed water concentration of reported by the Snyder Lab is over 50% higher than in the influent concentration.

A single detection of the herbicide diuron at 46 ng/L in the January 2014 sample of the A+ reclaimed water was well below its EPA Health Advisory level of 200 ng/L.

5.4 Native (Upgradient) Groundwater Sample Results

During Phase I, two samples were collected from the drinking water well upgradient of the current effluent management areas. No CECs were detected in the sample analyzed by the Eaton Lab. In the sample analyzed by the Snyder Lab detections were found (caffeine at 2 ng/L, PFOS at 1 ng/L, TCPP at 12 ng/L, triclocarban at 7 ng/L, in addition to benzophenone and propylparaben, which may have been sampling artifacts and are discussed further in Section 5.7). This difference between the labs is most likely attributable to the lower reporting limits provided by the Snyder Lab and does not necessarily represent a discrepancy in the data. While extremely low and not of concern for human health, these concentrations do imply the potential influence of wastewater of different origin in the upgradient groundwater. It is possible that the presence of these compounds in the native groundwater is at least partially attributable to upgradient septic systems.

5.5 Down-Gradient Groundwater Sample Results

During this study, samples were collected from two locations that may be potentially influenced by the existing reclaimed water management practices: The Point of Compliance (POC) Well, which is located at the southernmost (downgradient) boundary of the WWRP property, and the injection test well, which is located downgradient of the northern portions of the reclaimed water management areas.

5.5.1 POC Well

Both laboratories confirmed the presence of artificial sweeteners in the POC Well at very low concentrations that remained generally consistent throughout Phase I and Phase II testing (170/180 ng/L Acesulfame-K reported by the Eaton Lab, and 31 ng/L sucralose reported by the Snyder Lab). The sucralose concentration reported by the Snyder Lab is below the MRL reported by the Eaton Lab. No artificial sweeteners were detected in the upgradient potable water supply well.

Low-level concentrations of sulfamethoxazole (an antibiotic), caffeine, TCPP (a flame retardant chemical used in many types of fabrics), and triclocarban (an antimicrobial agent used in hand soap), were reported for the samples collected from the POC Well. Of those compounds, TCPP and triclocarban were also detected at similar concentrations in the sample collected from the potable water supply well, indicating that the detections of these compounds in the POC Well are not necessarily attributable to wastewater influence from the WWRP.

Bisphenol A, or BPA (a breakdown product of polycarbonate plastic containers) was detected in the samples from the POC Well sent to both laboratories at concentrations equivalent or higher than those detected in the wastewater influent. This detection was

confirmed in two additional samples analyzed from the POC Well during Phase II testing. However, while present in the raw wastewater sample, BPA was not detected in the reclaimed water in any of the five samples analyzed. The interpretation of BPA detections in the samples from the POC Well is therefore not straightforward, though it is unlikely that the detections are the result of wastewater influence in the POC Well. It is possible that BPA detections were a result of polycarbonate components of sampling equipment installed in the well.

In summary, under the current level of wastewater influence, the detection of CECs in the POC Well is rare. Only four of 55 compounds detected in the wastewater influent were confirmed to be present in the POC Well by both laboratories. The concentrations of these compounds are generally in the lower ng/L range. This would seem to indicate that the current practice of reclaimed water spray irrigation in the effluent management area has not impaired the local groundwater quality relative to the CECs investigated in this study.

5.5.2 Injection Well

During Phase II, a single sample was collected from the injection test well prior to the start of the injection test, which resulted in the detection of only one compound: Acesulfame-K reported at 31 ng/L. This may indicate some level of influence from the existing wastewater management areas. Given that the groundwater near this well was influenced by only a portion of those wastewater management areas, it is reasonable to expect even lower concentrations than those found in the POC Well.

5.6 Current Research and CEC Guidance Levels

As stated above, most of the compounds discussed in this evaluation are not regulated at the Federal or State level. That said, significant scientific research has been conducted with respect to the potential environmental and human health risks associated with many of the compounds analyzed. While no binding treatment requirements for CECs currently exist in the U.S. for wastewater treatment facilities, several states have established non-binding guidance values and/or monitoring requirements for reclaimed water used for potable reuse for several of the compounds included in this study. The majority of the research has focused on direct potable reuse applications (i.e., no additional treatment prior to human consumption).

A recent WaterReuse Research Foundation study³ concluded, based on a combination of existing guidance values and scientific research that save for a few specific exceptions, treatment processes that could reduce individual CECs concentrations to below 1 µg/L (1,000 ng/L) in reclaimed water would be sufficient for use in *direct potable reuse* applications (Trussell et al., 2013). The concentration thresholds developed by this study were confirmed by a panel of national experts in water reuse, toxicology, and human health

³ WaterReuse Research Foundation Project No. 11-02, *Equivalency of Advanced Treatment Trains for Direct Potable Reuse*.

risk assessment convened by the National Water Research Institute (NWRI) in the context of the project.

The three classes of compounds that were found by the panel to require lower concentrations to ensure the safety of public health for direct potable reuse of reclaimed water included nitrosamines, perfluorochemicals (PFCs), and steroid hormones. Analytes representing one or more compounds in each of these groups were included in the analyses conducted for this evaluation, and none of the concentrations of these compounds in the wastewater effluent sample exceeded the threshold values listed by the NWRI panel. For these compound groups, Table 2.5 lists the recommended threshold values confirmed by the NWRI panel and the results reported for the wastewater effluent. Of those compounds, only PFOS and NDMA were detected, once each, at concentrations above their respective reporting limits. PFOS was detected at a concentration 100 times less than the NWRI threshold value. NDMA was detected at 6.1 ng/L, which is also below its NWRI threshold, and only slightly above the method reporting limit of 2 ng/L (Eaton Lab). It was also only detected in one out of five total samples collected from the reclaimed water.

The NWRI panel also specifically listed sucralose, stating that it can be used as a conservative tracer for wastewater influence as it is resistant to removal by a variety of processes. The report also notes that sucralose is approved for use as a food additive and lists a recommended threshold of approximately 150 mg/L, or 150 million ng/L. Benzotriazole and amoxicillin are not specifically addressed by the panel, but concentration thresholds listed by the panel for pharmaceuticals generally range from 1 µg/L to 200 µg/L.

Table 2.5 CECs with NWRI Panel Thresholds of Less than 1 µg/L Constituents of Emerging Concern Water Quality Evaluation City of Sedona		
CEC Compound	NWRI Threshold Value	WWRF A+ Reclaimed Water
NDMA (nitrosamine)	10 ng/L	6.1 ng/L
PFOA (PFC)	400 ng/L	<11 ng/L ⁽¹⁾
PFOS (PFC)	200 ng/L	2 ng/L
Ethinyl Estradiol (hormone)	None, but if established, it will approach detection limit (low ng/L)	<5 ng/L ⁽²⁾
Estradiol (hormone)		<5 ng/L ⁽³⁾
Notes:		
(1) MDL of 11 ng/L as reported by Snyder Lab.		
(2) MDL of 5 ng/L as reported by Eaton Lab.		
(3) MDL of 5 ng/L as reported by Eaton Lab.		

It bears repeating that the NWRI panel's recommendations are based on a *direct potable reuse* scenario, which means that they assume no further treatment of the reclaimed water occurs before it is considered safe to drink. That is not the case here, as the reclaimed water is proposed for aquifer storage, which would allow for additional attenuation of these compounds during subsurface travel. Therefore, the recommendations provided by the NWRI panel should be seen as a very conservative benchmark for the current evaluation.

5.7 Data Quality Assurance / Quality Control (QA/QC) Analysis

Field and laboratory blanks were collected to provide an effective QA/QC program for the sampling campaign. As a result of this additional analysis, one data quality issue was identified with the analytical data in Phase I. The Snyder Lab reported detections of benzophenone (a UV blocker) at and propylparaben (commonly used in lotions) at 34 ng/L and 76 ng/L in the POC and drinking water well samples, respectively. Reported MRLs for these compounds are 3 ng/L and 2 ng/L, respectively, which would indicate that those compounds were clearly present in the samples analyzed. However, the field blank analyzed by the Snyder Lab was reported as having similar concentrations of these compounds, which are both commonly used in sunscreen. The field blank results indicate likely sample contamination with these two compounds, and therefore the results reported for these two compounds should not be interpreted as reliable.

Propylparaben was not detected in the samples analyzed by the Eaton Lab (MRL of 5 ng/L) which corroborates the conclusions above and indicates that this compound is likely not present in either well; benzophenone is not on the list of compounds analyzed by the Eaton Lab.

No data quality issues were identified in the Eaton data set, though no field blank samples were provided or analyzed by this laboratory during Phase I testing. However, for analytes common to both laboratories, the Eaton Lab did not detect the presence of any samples that were not confirmed by the Snyder Lab.

Phase II testing, which was conducted exclusively by the Eaton Lab, included field blanks and no additional QA/QC issues were identified.

6.0 CONCLUSIONS

The City of Sedona is in the process of conducting an injection well test with Class A+ reclaimed water, the highest reclaimed water quality classification regulated by ADEQ. The City has conducted an investigation of levels of contaminants of emerging concern (CECs) in the influent wastewater, reclaimed water, and groundwater surrounding the WWRP to better characterize the reclaimed water proposed for aquifer injection and to identify any CECs that may present a potential health concern, based on current research.

The sample results indicate that many CECs are present in the raw wastewater flowing into the WWRP. This is consistent with findings at many other wastewater treatment plants and reflects the use of pharmaceuticals and personal care products by the population in the WWRP service area. The analytical results for the sample collected from the wastewater effluent (i.e., the Class A+ reclaimed water used in the injection test) indicates that significant attenuation of CECs occurs during the treatment processes used at the WWRP, especially for compounds present in high concentrations in the raw wastewater.

While no binding treatment requirements for CECs currently exist in the US for wastewater treatment facilities, recent studies (NWRI, 2013, Trussell, 2013) have provided treatment goals for deriving potable water directly from reclaimed water (direct potable reuse, or DPR). The results of the CEC water quality investigation were compared to these threshold concentrations, which should be seen as a very conservative benchmark for the current evaluation, since additional attenuation is likely to occur in the subsurface. Based on this comparison and the current state of knowledge, no significant health risks associated with the CECs concentrations measured in the A+ reclaimed water sample have been identified.

Detections of CECs in the samples collected from the potable water supply well reflect some potential low-level anthropogenic influence on the aquifer upgradient of influence from the WWRP. For the sample collected from the POC Well, the same compounds plus a few additional CECs at low ng/L (parts per trillion) levels and two artificial sweeteners at slightly higher levels were detected. This indicates a limited influence of reclaimed water irrigation practices in the POC Well. Concentrations in the POC Well did not significantly rise as a result of the injection well test. Due to the fractured nature of the bedrock aquifer, it is difficult to accurately estimate the time required for the injected water to travel to the POC well. This analysis was beyond the scope of this project.

Of all compounds included in this analytical study, the sweeteners Acesulfame-K and Sucralose are recommended as indicators for assessing the influence of reclaimed water in the groundwater aquifer in the future. Neither compound was detected in the native groundwater, both are present in the A+ reclaimed water, and they are unlikely to degrade significantly in the subsurface.

7.0 REFERENCES

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LABORATORY SAMPLING PROTOCOLS

PPCP Sample Collection Protocols

- **Place ice packs into freezer upon arrival and ensure that they are frozen before sampling begins.**
- **Wear gloves**, at all times, during sampling and avoid touching or even breathing on the samples (We are measuring compounds at ng/L levels, so it is very prone to contamination).
- See attached summary of additional precautions to be taken when sampling PPCPs
- Sample bottle contains toxic preservative to prevent biological degradation of PPCPs. Be sure to not rinse out the container.
- **Do not rinse or overfill containers (2 x 40 ml amber vials with preservative are provided for the small volume test(EDC4, DXABI); 2 x 1 L amber glass bottles with preservative are provide for the large volume test (EDC2). Fill to the neck.**
- Use sampling tap that is free of aerators, strainers, or hose attachments.
- Flush for 3-5 minutes to obtain a representative sample (preferably using a tap that is constantly flowing).
- **For composite samples, please change out the Teflon tubing on the compositor and use newly cleaned baked glassware to collect samples** (see additional Protocols pg 2/2, for PPCP cleaning precautions).
- **Field blank**, optional (skip if not part of scope), **please transfer the water provided by the lab, into the Field blank sample bottle, while standing in near proximity to the specific site.**
- Make sure cap is tightly sealed.
- Fill out Sample Information Sheet/Chain of Custody and include any additional water quality data available.
- Place sample in 1-4°C refrigerator to cool sample prior to overnight shipping (min. 2 hours).
- When ready to ship, place sample bottles into cooler, include frozen ice packs and Sample Information Sheet/Chain of Custody, which is in a sealed plastic bag.
- Send return shipment via overnight service or via alternate delivery to participating lab.

Additional PPCP Precautions When Sampling

On the day of sampling activities, avoid contact with or consumption of the products listed below. Where contact with or consumption of these products is unavoidable, the collection of field blanks is strongly recommended.

Wastewater compounds

Soaps and detergents, including antibacterial cleansers
DEET (active ingredient in most insect repellents)
Fragrances (cologne, aftershave, perfume)
Sunscreen
Animal or human urine or excrement
Caffeine (coffee, tea, colas)
Tobacco

Pharmaceutical compounds

Prescription drugs, medications, and hormonal substances
Over-the-counter medications
Selected human antibiotics

Antibiotics

Human antibiotics
Veterinary antibiotics

- Wear powderless nitrile laboratory gloves during sampling and processing. Change to clean gloves with each change in activity or potential glove contamination.
- Avoid breathing directly over open samples/equipment.
- Avoid direct contact between yourself (including clothing) and the sample, sampling device, and processing equipment. Clothing is a source of detergents, fragrances, and fire retardants.

To collect and process samples (if not sampling from a tap):

1. Select sampling and processing equipment made of fluorocarbon polymers, glass, aluminum, or stainless steel. Avoid equipment made of Tygon, polyethylene, or other plastics.
2. Clean equipment thoroughly before use.
 - Use non-antibacterial detergents.
 - Take extra care to ensure that equipment is copiously rinsed with deionized water (DIW) after the detergent wash—detergents are a source of interference in the analysis of pharmaceutical compounds and may include a target analyte (triclosan) of the method.
 - Follow the DIW rinse with a methanol rinse. Collect the used methanol solution into an appropriate container for disposal.
 - Do not clean or field-rinse the sample bottles from the laboratory.

Sampling Protocol for non-volatile analytes in drinking water

** FREEZE BLUE ICE UPON RECEIPT OF SAMPLING KIT

- Bottles are provided by MWH Labs. Clean, baked amber borosilicate glass bottles are used for all but DIQUAT. Typical Volumes and preservatives required per test are as follows:

<u>TEST NAME</u>	<u>BOTTLE SIZE</u>	<u>RAW WATER PRESERV.</u>	<u>FINISHED WATER PRESERV.</u>	<u>HOLD TIME</u>
CARBAMATES (ML531)	2 40-mL	Citrate	Citrate+thiosulfate	28 days
SYNTHETIC ORGANICS (525)	2 or 3 1-L	HCl	HCl in vial +S. Sulfite	14 days
HERBICIDES (ML515.4)	2 125ml	none	sulfite	14 days
PESTICIDES (ML505)	4 40ml VOC	none	thiosulfate	7 days
DIOXIN (D1613)	2 1-L	none	thiosulfate	1 year
ENDOTHALL (ENDOTHAL)	1 125-mL	none	thiosulfate	7 days
GLYPHOSATE (GLYPHOS)	1 125-mL	none	thiosulfate	14days
DIQUAT (DIQUAT)	1 1-L, amber <u>Plastic</u>	none	thiosulfate	7 days
NDMA or DIOXANE	2 or 3 1-L	none	thiosulfate	14 days

- Use a durable label (waterproof) and indelible ink to clearly identify sample container with information listed below:
 - Unique field identification
 - Client name
 - Sample site
 - Sample date and time
 - Analyses required, if not already on label
- Let the water of the sample source run at fast flow for five minutes.
- Slow water flow (to minimize splashing) and fill sample bottle up to ***bottom of neck***, making sure mouth of the bottle does not come in contact with anything other than sample water. **DO NOT RINSE OUT PRESERVATIVE.** Screw cap on firmly.

IF SAMPLE SITE IS CHLORINATED: For the ML525 bottles, fill bottle to just below the neck, then pour the acid out of the small vial into the large bottle. **DO NOT ADD ACID INTO THE EMPTY BOTTLE.**

- Include completed Work Order or Chain of Custody with returning samples to specify at sample login the list of tests required. The following additional information is required on the chain of custody.
 - Field sample identification
 - Location, date and time of collection
 - Collector's name
 - Preservation type (including "No preservative")
 - Sample type (water, soil, sludge, etc.)
 - Special remarks concerning the sample, if applicable
- Store at 4°C until transported to lab.

SHIPPING SAMPLES

- Ship samples overnight in a cooler with FROZEN blue ice, maintaining an environment at 4°C during transport.
- Samples should arrive at the lab within 2 days of sampling, taking no more than 40 hours for transit time.



MWH Laboratories
A Division of MWH Americas, Inc.

Sample Collection Protocol

Snyder Lab Analysis of CECs in Water

1. Wear nitrile gloves before opening cooler. Wear gloves at all times when handling the sample bottles and when sampling.
2. Take the sample labeled FIELD BLANK to every sample collection site. Open the Field Blank sample bottle cap for 1 min at each sampling site AFTER collecting the sample.
3. Collect samples in 1 L silanized amber glass bottles. If collecting from a tap, open the flow to normal settings. Flush for 3-5 minutes and then collect the sample.
4. After collecting the sample, add 1 g of Sodium Azide to the bottle. **ALREADY ADDED INTO BOTTLE BEFORE SHIPPING**
5. If residual chlorine is present, add 75-100 mg of Sodium Thiosulfate to the sample.
6. Shake bottle vigorously for 3-4 minutes.
7. Store samples in an iced cooler and transport back to the lab (Your Lab) as soon as possible (<2 hours)
8. Store samples at 4C in the lab.
9. Ship samples by PRIORITY OVERNIGHT to:

Attn: Dr. Sylvain Merel/Tarun Anumol
Snyder Research Lab

University of Arizona
BIO5 Institute
1657 East Helen Street
Tucson, AZ 85719
Ph: 520-668-6042

REPORTS OF LABORATORY RESULTS

Analysis of Emerging Organic Contaminants in Sedona WWTP and GW

Analysis of Pharmaceuticals and Personal-Care Products (PPCPs)/Trace Organic Contaminants (TOCs)

Sample collection

The sampling kit consisting of 1-L amber glass bottles, sampling procedure and chain of custody were shipped from the University of Arizona (U of A) to the Sedona WWTP. 1 g/L of sodium azide was added to each sample bottle to prevent microbial degradation of contaminants during transport of samples from Sedona back to the lab. A field blank filled with one liter of ultrapure water (with sodium azide) sent from the University was carried by the technician during sampling and returned with the other samples. All samples were stored in an iced cooler (~4C) and returned to the lab at U of A within 24 hours.

Sample receipt and extraction

All samples were filtered with 72 hours of receipt in the lab by a 0.7 um GF/F filter from Whatman (England) using a vacuum manifold. The samples were then doped with a mix of isotopically labeled standards at 200 ng/l. Since the samples were expected to contain vastly different concentrations of TOCs, different volumes of each were extracted using an automated solid phase extraction device (Table 1). The extracts were blown down to 1 ml and reconstituted in methanol for analysis on the LC MS/MS.

Sample	Extraction volume (ml)
Sample 1 (GW monitoring well)	500
Sample 2 (GW monitoring well POC-1)	500
Sample 3 (WW effluent)	200
Sample 4 (WW influent)	100
Nitrosamines (all samples)	500

Sample Analysis

All extracts produced in 100% methanol were analyzed using an Agilent 6460 triple quadrupole mass spectrometer coupled to a 1290 Binary pump liquid chromatograph. An Zorbax Eclipse Plus C-18 column was used for analytical separation in both positive and negative electrospray ionization modes. All analysis was performed using Dynamic multiple reaction monitoring (DMRM). Further details can be found in the Agilent Application note (5991-1412 EN)

Data Analysis

The MRL for each target analyte was determined in two steps. First, the lowest calibration point of each analyte that had accuracy between 70-130% was chosen as the instrumental MRL. Secondly, the MRLs

were adjusted for the surrogate recovery found in the respective matrix. The 100% surrogate response was obtained by an average of 4 blanks spiked with 200 ng/L of the surrogate mix. This gives a true MRL for each matrix below which an analyte concentration cannot be quantified. The concentrations of the analytes were determined using the Agilent Mass Hunter software and suitably corrected based on the extraction volume. The results for 35 TOrCs is indicated in the attached excel sheet.

Analysis cost for the complete suite of PPCPs/TOrCs in the Snyder Lab is \$500/sample including extraction, sample prep and cleanup.

Analysis of Nitrosamines

Sample collection

Same as previous

Sample extraction

The protocol for extraction closely followed that of EPA 521. EnviroCarb coconut charcoal cartridges were used for the solid phase preparation. Nitrosamines are extracted by passing a 500ml aliquot sample (spiked with 10 ppb of NDMA-d6 as a surrogate) through a solid phase extraction (SPE) cartridge containing 2 g of 80-120 mesh coconut charcoal. Cartridges are conditioned prior to extract by sequential addition of 3ml methylene chloride, 3ml methanol (repeated 3 times), followed by 3ml HPLC grade water, repeated 5 times. Samples were loaded onto the cartridge at a rate of 10ml/minute. Analytes are eluted from the cartridge using 10ml of methylene chloride. Residual water was eliminated from sample extract by passing through 5-7 grams anhydrous sodium sulfate. Eluent was then concentrated under a gentle stream of nitrogen to 0.9ml. Prior to immediate analysis, 20 ul of 500ug/ml NDPA-d14 internal standard is added to extract and standards.

Sample Analysis

For the analysis, an Agilent 7000 triple quadrupole mass spectrometer coupled to Agilent 7890 gas chromatograph was used. All gases used were ultra high purity or equivalent. A DB-WAX ETR capillary column from J&W Scientific (30m x 0.25mm ID x 0.25um) was employed for gas chromatographic separation with the following oven temperature program: 40C (3 minute hold), heating to 110C at 10C/min, ramping at 15C/min to 200C, with a final progression of 40C/min to 240C. The column was operated at a constant helium flow rate of 1.25 ml/min with injector in splitless mode and held at 200C. The MS interface was held at 240C, while the source temperature was 200C and both quadrupoles maintained at 150C. The mass spectrometer was operated in chemical ionization mode, with nitrogen collision cell gas at 1.5ml/min, helium quench gas at 2.25ml/min, using 20% ammonia as reagent gas.

Analytes were detected in multiple reaction monitoring mode (MRM).

Analysis cost for Nitrosamines in the Snyder Lab is \$250/sample including extraction, sample prep and cleanup.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
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1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attention: Brad Jeppson
Fax: 602-265-1422



DEB: Debbie.L.Frank
Project Manager



01114CA

Report: 423137
Project: SEDONA-AZ
Group: SEDONA-WRP CEC
Study

Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nevada	CA00006-2012-1
Arkansas	Certified	New Hampshire	2959-11
California – NELAP	01114CA	New Jersey	CA 008
California – ELAP	1422	New Mexico	Certified
Colorado	Certified	New York	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida	E871024	Oregon	CA 200003-010
Georgia	947	Pennsylvania	68-565
Guam	11-004r	Rhode Island	01114CA
Hawaii	Certified	South Carolina	87016001
Idaho	Certified	South Dakota	Certified
Illinois	200033	Tennessee	TN02839
Indiana	C-CA-01	Texas	T104704230-11-2
Kansas	E-10268	Utah	Mont-1
Kentucky	90107	Vermont	VT0114
Louisiana	LA110022	Virginia	00210
Maine	CA0006	Washington	C383
Maryland	224	West Virginia	9943 C
Commonwealth of Northern Marianas Is.	MP0004	Wisconsin	998316660
Massachusetts	M-CA006	Wyoming	8TMS-L
Michigan	9906	EPA Region 5	Certified

Acknowledgement of Samples Received

Addr: **Carollo**
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Client ID: CAROLLO
Folder #: 423137
Project: SEDONA-AZ
Sample Group: SEDONA-WRP CEC Study

Attn: Brad Jeppson
Phone: 602-474-4132

Project Manager: Debbie.L.Frank
Phone: (626) 386-1149

The following samples were received from you on **January 25, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201301250373	potable water well	01/24/2013 1215
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201301250374	monitoring well poc-1	01/24/2013 1035
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201301250375	wastewater effluent	01/24/2013 1115
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201301250376	wasterwater influent	01/24/2013 1135
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	

Test Description

- @DX_ABI_NEG -- Endocrine Disruptors Negative Mode - SPE
- @DX_ABI_POS -- Endocrine Disruptors Positive Mode - SPE
- @ML521_SPE8 -- Nitrosamines by GCMS

750 Royal Oaks Drive, Suite 100
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(626) 386-1100 FAX (626) 386-1101

Kit Order for Carollo Engineers

Debbie.L.Frank is your Eurofins Eaton Analytical Project Manager

Note: Sampler Please return this paper with your samples

Kit #: 62596
Created: DEB
By: 01/24/2013
Order Date: 01/14/2013
Ship By: Bottle Orders
STG:

Client ID: CAROLLO
Project Code: SEDONA-AZ Bottle Orders
Group Name: SEDONA-WRP CEC Study
PO#/JOB#:

Ship Sample Kits to
Sedona Wastewater Reclamation Plant
19655 W State Route 89A
Sedona, AZ 86336

Attn: Kelly Parlin, Chief Chemist
Phone: 602-474-4132

Send Report to
Carollo Engineers
4600 East Washington Street, Suite 500
Phoenix, AZ 85034

USA
Attn: Bryan Huey
Phone: 602-474-4130
Fax: 602-265-1422

Billing Address
Carollo Engineers
4600 East Washington Street, Suite 500
Phoenix, AZ 85034

Attn: Accounts Payable

UN DOT #

Bottles - Qty for each sample, type & preservative if an
2 40ml amber glass vial 80ul 32g/l NaOmadine + 5mg AA
2 1L amber glass 80-100mg Sodium Thiosulfate

# of Sample	Tests
4	@DX_ABL_NEG, @DX_ABL_POS
4	@ML521_SPE8

Comments

Include sampling instruction
Deliver on or before 01/23/13

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

750 Royal Oaks Drive, Suite 100
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1 800 566 LABS (1 800 566 5227)

Laboratory Comments
Report: 423137

Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Flags Legend:

H1 - Sample analysis performed past holding time. Data not acceptable for regulatory compliance.

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

S6 - Surrogate recovery was below laboratory and method acceptance limits. Re-extraction and/or reanalysis confirms low recovery caused by matrix effect.

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**Laboratory Hits
 Report: 423137**

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/25/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		201301250374				
		<u>monitoring well poc-1</u>				
02/15/2013 00:16	Acesulfame-K		170		ng/L	20
02/15/2013 00:16	BPA		320		ng/L	10
		201301250375				
		<u>wastewater effluent</u>				
02/19/2013 23:19	1,7-Dimethylxanthine		51		ng/L	10
02/15/2013 00:33	Acesulfame-K		140		ng/L	20
02/19/2013 23:19	Amoxicillin (semi-quantitative)		1200		ng/L	20
02/19/2013 23:19	Atenolol		220		ng/L	5
02/15/2013 00:33	Butalbital		63		ng/L	5
02/19/2013 23:19	Caffeine		81		ng/L	5
02/19/2013 23:19	Carbamazepine		500		ng/L	5
02/19/2013 23:19	Carisoprodol		140		ng/L	5
02/19/2013 23:19	Cotinine		30		ng/L	10
02/19/2013 23:19	Diazepam		5.7		ng/L	5
02/15/2013 00:33	Diclofenac		21		ng/L	5
02/19/2013 23:19	Dilantin		56		ng/L	20
02/19/2013 23:19	Erythromycin		26		ng/L	10
02/19/2013 23:19	Fluoxetine		42		ng/L	10
02/15/2013 00:33	Gemfibrozil		30		ng/L	5
02/15/2013 00:33	Iohexal		53		ng/L	10
02/19/2013 23:19	Lidocaine		190		ng/L	5
02/19/2013 23:19	Lopressor		490		ng/L	20
02/19/2013 23:19	Meprobamate		130		ng/L	5
02/19/2013 23:19	Primidone		110		ng/L	5
02/15/2013 00:33	Sucralose		43000		ng/L	1000
02/19/2013 23:19	Sulfamethoxazole		350		ng/L	5
02/19/2013 23:19	TCEP		270		ng/L	100
02/19/2013 23:19	T CPP		470		ng/L	100
02/19/2013 23:19	TDCPP		460		ng/L	100
02/19/2013 23:19	Theobromine		640		ng/L	10
02/19/2013 23:19	Theophylline		160		ng/L	20
02/19/2013 23:19	Trimethoprim		100		ng/L	5
		201301250376				
		<u>wasterwater influent</u>				
02/19/2013 23:53	1,7-Dimethylxanthine		22000		ng/L	1000
02/15/2013 01:07	4-tert-Octylphenol		2900		ng/L	500
02/15/2013 01:07	Acesulfame-K		56000		ng/L	200

SUMMARY OF POSITIVE DATA ONLY

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**Laboratory Hits
 Report: 423137**
Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/25/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
02/19/2013 23:53	Acetaminophen		170000		ng/L	500
02/19/2013 23:53	Amoxicillin (semi-quantitative)		9200		ng/L	200
02/19/2013 23:53	Atenolol		1800		ng/L	50
02/15/2013 01:07	BPA		340		ng/L	10
02/15/2013 01:07	Butylparaben		24		ng/L	5
02/19/2013 23:53	Caffeine		170000		ng/L	500
02/19/2013 23:53	Carbamazepine		160		ng/L	5
02/19/2013 23:53	Carisoprodol		66		ng/L	5
02/19/2013 23:53	Cotinine		2700		ng/L	100
02/19/2013 23:53	DEET		150		ng/L	100
02/15/2013 01:07	Diclofenac		26		ng/L	5
02/19/2013 23:53	Dilantin		51		ng/L	20
02/19/2013 23:53	Erythromycin		660		ng/L	10
02/15/2013 01:07	Estradiol		13		ng/L	5
02/15/2013 01:07	Estrone		53		ng/L	5
02/15/2013 01:07	Gemfibrozil		4400		ng/L	50
02/15/2013 01:07	Ibuprofen		12000		ng/L	100
02/15/2013 01:07	Iohexal		75		ng/L	10
02/19/2013 23:53	Ketoprofen		150		ng/L	5
02/19/2013 23:53	Ketorolac		33		ng/L	5
02/19/2013 23:53	Lidocaine		250		ng/L	5
02/19/2013 23:53	Lincomycin		11		ng/L	10
02/19/2013 23:53	Lopressor		970		ng/L	20
02/19/2013 23:53	Meprobamate		470		ng/L	5
02/15/2013 01:07	Naproxen		7700		ng/L	100
02/19/2013 23:53	Nifedipine		210		ng/L	20
02/26/2013 00:30	N-Nitrosopiperidine (NPIP)		7.2		ng/L	2
02/19/2013 23:53	Pentoxifylline		40		ng/L	5
02/19/2013 23:53	Primidone		95		ng/L	5
02/15/2013 01:07	Propylparaben		590		ng/L	5
02/15/2013 01:07	Sucralose		38000		ng/L	1000
02/19/2013 23:53	Sulfamethoxazole		1100		ng/L	50
02/19/2013 23:53	TCEP		740		ng/L	10
02/19/2013 23:53	TCEP		220		ng/L	100
02/19/2013 23:53	TDCPP		200		ng/L	100
02/19/2013 23:53	Theobromine		140000		ng/L	1000
02/19/2013 23:53	Theophylline		14000		ng/L	20

SUMMARY OF POSITIVE DATA ONLY

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**Laboratory Hits
Report: 423137**

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Phoenix, AZ 85034

Samples Received on:
01/25/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
02/15/2013 01:07	Triclosan		160		ng/L	10
02/19/2013 23:53	Trimethoprim		350		ng/L	5
02/15/2013 01:07	Warfarin		7.4		ng/L	5

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 Report: 423137**

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Samples Received on:
 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
potable water well (201301250373)					Sampled on 01/24/2013 1215			
EPA 521 - Nitrosamines by GCMS								
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
1/29/2013	02/25/2013	18:34 695348	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:10 690985	(EPA 521)	NDMA-D6	86	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	02/19/2013	22:42 691497	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Atenolol	ND (R7)	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	DACT	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	DEA	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	DEET	ND (R7)	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	DIA	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Samples Received on:
 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	02/19/2013	22:42 691497	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Lidocaine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Lopressor	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Meprobamate	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Primidone	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfamethoxazole	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	TCEP	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	TCP	ND	ng/L	100	1

Rounding on totals after summation.
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Laboratory Data
Report: 423137

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	02/19/2013	22:42 691497	(LC-MS-MS)	TDCPP	ND (R7)	ng/L	100	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	02/19/2013	22:42 691497	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	02/14/2013	23:58 691498	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	02/14/2013	23:58 691498	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Acesulfame-K	ND	ng/L	20	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	BPA	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Iohexal	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	02/14/2013	23:58 691498	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

monitoring well poc-1 (201301250374)
Sampled on 01/24/2013 1035
EPA 521 - Nitrosamines by GCMS

1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1

Rounding on totals after summation.
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 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
1/29/2013	02/28/2013	14:45 695650	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND (H1)	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
1/29/2013	01/30/2013	22:54 690985	(EPA 521)	NDMA-D6	97	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	02/19/2013	23:01 691497	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Atenolol	ND (R7)	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	DACT	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	DEA	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	DEET	ND (R7)	ng/L	10	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	DIA	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	02/19/2013	23:01 691497	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1

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 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	02/19/2013	23:01	691497	(LC-MS-MS)	Flumequine	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Fluoxetine	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Isoproturon	ND	100	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Ketoprofen	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Ketorolac	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Lidocaine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Lincomycin	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Linuron	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Lopressor	ND	20	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Meclofenamic Acid	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Meprobamate	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Metazachlor	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Nifedipine	ND	20	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Norethisterone	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Oxolinic acid	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Pentoxifylline	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Phenazone	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Primidone	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Progesterone	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Propazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Quinoline	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Simazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfachloropyridazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfadiazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfadimethoxine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfamerazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfamethazine	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfamethizole	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfamethoxazole	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Sulfathiazole	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	TCEP	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	TCPP	ND	100	1
	02/19/2013	23:01	691497	(LC-MS-MS)	TDCPP	ND (R7)	100	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Testosterone	ND	5	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Theobromine	ND	10	1
	02/19/2013	23:01	691497	(LC-MS-MS)	Theophylline	ND	20	1

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Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	02/19/2013	23:01	691497	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE									
	02/15/2013	00:16	691498	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	02/15/2013	00:16	691498	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Acesulfame-K	170	ng/L	20	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	BPA	320	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Iohexal	ND	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	02/15/2013	00:16	691498	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

wastewater effluent (201301250375)

Sampled on 01/24/2013 1115

EPA 521 - Nitrosamines by GCMS

2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37	691070	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1

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 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
2/5/2013	02/25/2013	23:45 695351	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37 691070	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
2/5/2013	02/10/2013	17:37 691070	(EPA 521)	NDMA-D6	89	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	02/19/2013	23:19 691497	(LC-MS-MS)	1,7-Dimethylxanthine	51	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Amoxicillin (semi-quantitative)	1200	ng/L	20	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Atenolol	220 (R7)	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Caffeine	81	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Carbamazepine	500	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Carisoprodol	140	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Cotinine	30	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	DACT	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	DEA	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	DEET	ND (R7)	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	DIA	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Diazepam	5.7	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Dilantin	56	ng/L	20	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Erythromycin	26	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Fluoxetine	42	ng/L	10	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	02/19/2013	23:19 691497	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1

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Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	02/19/2013	23:19	691497	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Lidocaine	190	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Lopressor	490	ng/L	20	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Meprobamate	130	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Primidone	110	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfamethoxazole	350	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	TCEP	270	ng/L	100	10
	02/19/2013	23:19	691497	(LC-MS-MS)	TCPP	470	ng/L	100	1
	02/19/2013	23:19	691497	(LC-MS-MS)	TDCPP	460 (R7)	ng/L	100	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Theobromine	640	ng/L	10	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Theophylline	160	ng/L	20	1
	02/19/2013	23:19	691497	(LC-MS-MS)	Trimethoprim	100	ng/L	5	1
	LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	02/15/2013	00:33	691498	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	02/15/2013	00:33	691498	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1

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**Laboratory Data
 Report: 423137**

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	02/15/2013	00:33 691498	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Acesulfame-K	140	ng/L	20	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	BPA	ND	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Butalbital	63	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Diclofenac	21	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Gemfibrozil	30	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Iohexal	53	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Sucralose	43000	ng/L	1000	10
	02/15/2013	00:33 691498	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	02/15/2013	00:33 691498	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

wastewater influent (201301250376)

Sampled on 01/24/2013 1135

EPA 521 - Nitrosamines by GCMS

2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosomorpholine	ND (S6)	ng/l	2	1
2/5/2013	02/26/2013	00:30 695351	(EPA 521)	N-Nitrosopiperidine (NPIP)	7.2	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND (S6)	ng/L	2	1
2/5/2013	02/10/2013	18:22 691070	(EPA 521)	NDMA-D6	35	%		1

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Samples Received on:
 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	02/19/2013	23:53 691497	(LC-MS-MS)	1,7-Dimethylxanthine	22000	ng/L	1000	100
	02/19/2013	23:53 691497	(LC-MS-MS)	Acetaminophen	170000	ng/L	500	100
	02/19/2013	23:53 691497	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Amoxicillin (semi-quantitative)	9200	ng/L	200	10
	02/19/2013	23:53 691497	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Atenolol	1800 (R7)	ng/L	50	10
	02/19/2013	23:53 691497	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Caffeine	170000	ng/L	500	100
	02/19/2013	23:53 691497	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Carbamazepine	160	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Carisoprodol	66	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Cotinine	2700	ng/L	100	10
	02/19/2013	23:53 691497	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	DACT	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	DEA	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	DEET	150 (R7)	ng/L	100	10
	02/19/2013	23:53 691497	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	DIA	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Dilantin	51	ng/L	20	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Erythromycin	660	ng/L	10	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Ketoprofen	150	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Ketorolac	33	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Lidocaine	250	ng/L	5	1
	02/19/2013	23:53 691497	(LC-MS-MS)	Lincomycin	11	ng/L	10	1

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 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	02/19/2013	23:53	691497	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Lopressor	970	ng/L	20	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Meprobamate	470	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Nifedipine	210	ng/L	20	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Pentoxifylline	40	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Primidone	95	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfamethoxazole	1100	ng/L	50	10
	02/19/2013	23:53	691497	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	TCEP	740	ng/L	10	1
	02/19/2013	23:53	691497	(LC-MS-MS)	TCPP	220	ng/L	100	1
	02/19/2013	23:53	691497	(LC-MS-MS)	TDCPP	200 (R7)	ng/L	100	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Theobromine	140000	ng/L	1000	100
	02/19/2013	23:53	691497	(LC-MS-MS)	Theophylline	14000	ng/L	20	1
	02/19/2013	23:53	691497	(LC-MS-MS)	Trimethoprim	350	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE									
	02/15/2013	01:07	691498	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	02/15/2013	01:07	691498	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	02/15/2013	01:07	691498	(LC-MS-MS)	4-tert-Octylphenol	2900	ng/L	500	10
	02/15/2013	01:07	691498	(LC-MS-MS)	Acesulfame-K	56000	ng/L	200	10
	02/15/2013	01:07	691498	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1

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 01/25/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	02/15/2013	01:07 691498	(LC-MS-MS)	BPA	340	ng/L	10	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Butylparaben	24	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Diclofenac	26	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Estradiol	13	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Estrone	53	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Gemfibrozil	4400	ng/L	50	10
	02/15/2013	01:07 691498	(LC-MS-MS)	Ibuprofen	12000	ng/L	100	10
	02/15/2013	01:07 691498	(LC-MS-MS)	Iohexal	75	ng/L	10	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Naproxen	7700	ng/L	100	10
	02/15/2013	01:07 691498	(LC-MS-MS)	Propylparaben	590	ng/L	5	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Sucralose	38000	ng/L	1000	10
	02/15/2013	01:07 691498	(LC-MS-MS)	Triclosan	160	ng/L	10	1
	02/15/2013	01:07 691498	(LC-MS-MS)	Warfarin	7.4	ng/L	5	1

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Carollo

QC Ref # 690985 - Nitrosamines by GCMS

201301250373 potable water well
201301250374 monitoring well poc-1

Analysis Date: 01/30/2013

Analyzed by: KDT
Analyzed by: KDT

QC Ref # 691070 - Nitrosamines by GCMS

201301250375 wastewater effluent
201301250376 wasterwater influent
201301250376 wasterwater influent

Analysis Date: 02/10/2013

Analyzed by: KDT
Analyzed by: KDT
Analyzed by: KDT

QC Ref # 691497 - Endocrine Disruptors Positive Mode - SPE

201301250373 potable water well
201301250374 monitoring well poc-1
201301250375 wastewater effluent
201301250376 wasterwater influent

Analysis Date: 02/19/2013

Analyzed by: ARH
Analyzed by: ARH
Analyzed by: ARH
Analyzed by: ARH

QC Ref # 691498 - Endocrine Disruptors Negative Mode - SPE

201301250373 potable water well
201301250374 monitoring well poc-1
201301250375 wastewater effluent
201301250376 wasterwater influent

Analysis Date: 02/14/2013

Analyzed by: ARH
Analyzed by: ARH
Analyzed by: ARH
Analyzed by: ARH

QC Ref # 695348 - Nitrosamines by GCMS

201301250373 potable water well

Analysis Date: 02/25/2013

Analyzed by: KDT

QC Ref # 695351 - Nitrosamines by GCMS

201301250375 wastewater effluent
201301250376 wasterwater influent

Analysis Date: 02/25/2013

Analyzed by: KDT
Analyzed by: KDT

QC Ref # 695650 - Nitrosamines by GCMS

201301250374 monitoring well poc-1

Analysis Date: 02/28/2013

Analyzed by: KDT

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 690985 - Nitrosamines by GCMS by EPA 521						Analysis Date: 01/30/2013			
LCS3	NDMA-D6 (S)			83.3	%	83	(70-130)		
MBLK	NDMA-D6 (S)			87.7	%	88	(70-130)		
MRL_CHK	NDMA-D6 (S)			83.1	%	83	(70-130)		
MS2_201301250374	NDMA-D6 (S)			98.2	%	98	(70-130)		
MSD2_201301250374	NDMA-D6 (S)			88.2	%	88	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	59.1	ng/L	74	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	1.75	ng/L	88	(50-150)		
MS2_201301250374	N-Nitroso dimethylamine (NDMA)	ND	40	34.7	ng/L	86	(70-130)		
MSD2_201301250374	N-Nitroso dimethylamine (NDMA)	ND	40	33.9	ng/l	84	(70-130)	30	2.3
LCS3	N-Nitrosodibutylamine (NDBA)		80	58.5	ng/L	73	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.23	ng/L	112	(50-150)		
MS2_201301250374	N-Nitrosodibutylamine (NDBA)	ND	40	37.3	ng/L	88	(70-130)		
MSD2_201301250374	N-Nitrosodibutylamine (NDBA)	ND	40	33.7	ng/l	79	(70-130)	30	10
LCS3	N-Nitrosodiethylamine (NDEA)		80	61.9	ng/L	77	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	1.60	ng/L	80	(50-150)		
MS2_201301250374	N-Nitrosodiethylamine (NDEA)	ND	40	37.6	ng/L	94	(70-130)		
MSD2_201301250374	N-Nitrosodiethylamine (NDEA)	ND	40	34.8	ng/L	87	(70-130)	30	8.0
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	63.4	ng/L	79	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	1.92	ng/L	96	(50-150)		
MS2_201301250374	N-Nitrosodi-n-propylamin(NDPA)	ND	40	39.9	ng/L	99	(70-130)		
MSD2_201301250374	N-Nitrosodi-n-propylamin(NDPA)	ND	40	36.0	ng/l	89	(70-130)	30	10
LCS3	N-Nitrosomethylethylamin(NMEA)		80	63.7	ng/L	80	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.63	ng/L	82	(50-150)		
MS2_201301250374	N-Nitrosomethylethylamin(NMEA)	ND	40	39.1	ng/L	98	(70-130)		
MSD2_201301250374	N-Nitrosomethylethylamin(NMEA)	ND	40	35.7	ng/L	89	(70-130)	30	9.1
LCS3	N-Nitrosomorpholine		80	68.0	ng/l	85	(70-130)		
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.08	ng/l	54	(50-150)		
MS2_201301250374	N-Nitrosomorpholine	ND	40	37.9	ng/l	95	(70-130)		
MSD2_201301250374	N-Nitrosomorpholine	ND	40	36.2	ng/l	90	(70-130)	30	4.6
LCS3	N-Nitrosopyrrolidine (NPYR)		80	67.1	ng/L	84	(70-130)		

Spike recovery is already corrected for native results.

 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	1.58	ng/L	79	(50-150)		
MS2_201301250374	N-Nitrosopyrrolidine (NPYR)	ND	40	39.2	ng/L	98	(70-130)		
MSD2_201301250374	N-Nitrosopyrrolidine (NPYR)	ND	40	37.4	ng/L	94	(70-130)	30	5.0
QC Ref# 691070 - Nitrosamines by GCMS by EPA 521						Analysis Date: 02/10/2013			
LCS1	NDMA-D6 (S)			96.5	%	97	(70-130)		
MBLK	NDMA-D6 (S)			77.6	%	78	(70-130)		
MRL_CHK	NDMA-D6 (S)			103	%	103	(70-130)		
MS1_201301290611	NDMA-D6 (S)			80.3	%	80	(70-130)		
MSD1_201301290611	NDMA-D6 (S)			96.0	%	96	(70-130)		
LCS1	N-Nitroso dimethylamine (NDMA)		40	36.1	ng/L	90	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	2.29	ng/L	115	(50-150)		
MS1_201301290611	N-Nitroso dimethylamine (NDMA)	ND	2.0	1.86	ng/L	93	(50-150)		
MSD1_201301290611	N-Nitroso dimethylamine (NDMA)	ND	2.0	1.73	ng/L	87	(50-150)	30	7.2
LCS1	N-Nitrosodibutylamine (NDBA)		40	36.8	ng/L	92	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.72	ng/L	136	(50-150)		
MS1_201301290611	N-Nitrosodibutylamine (NDBA)	ND	2.0	3.02	ng/L	115	(50-150)		
MSD1_201301290611	N-Nitrosodibutylamine (NDBA)	ND	2.0	2.79	ng/L	103	(50-150)	30	7.9
LCS1	N-Nitrosodiethylamine (NDEA)		40	40.6	ng/L	102	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	1.95	ng/L	97	(50-150)		
MS1_201301290611	N-Nitrosodiethylamine (NDEA)	ND	2.0	1.86	ng/L	93	(50-150)		
MSD1_201301290611	N-Nitrosodiethylamine (NDEA)	ND	2.0	2.20	ng/L	110	(50-150)	30	17
LCS1	N-Nitrosodi-n-propylamin(NDPA)		40	38.3	ng/L	96	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	2.32	ng/L	116	(50-150)		
MS1_201301290611	N-Nitrosodi-n-propylamin(NDPA)	ND	2.0	2.14	ng/L	107	(50-150)		
MSD1_201301290611	N-Nitrosodi-n-propylamin(NDPA)	ND	2.0	2.54	ng/L	127	(50-150)	30	17
LCS1	N-Nitrosomethylethylamin(NMEA)		40	38.5	ng/L	96	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	2.15	ng/L	107	(50-150)		
MS1_201301290611	N-Nitrosomethylethylamin(NMEA)	ND	2.0	2.00	ng/L	100	(50-150)		
MSD1_201301290611	N-Nitrosomethylethylamin(NMEA)	ND	2.0	2.10	ng/L	105	(50-150)	30	4.9
LCS1	N-Nitrosomorpholine		40	36.4	ng/l	91	(70-130)		
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.05	ng/l	52	(50-150)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS1_201301290611	N-Nitrosomorpholine	ND	2.0	2.94	ng/l	49	(50-150)		
MSD1_201301290611	N-Nitrosomorpholine	ND	2.0	2.92	ng/l	48	(50-150)	30	0.68
LCS1	N-Nitrosopyrrolidine (NPYR)		40	42.4	ng/L	106	(70-130)		
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	2.71	ng/L	135	(50-150)		
MS1_201301290611	N-Nitrosopyrrolidine (NPYR)	ND	2.0	2.42	ng/L	121	(50-150)		
MSD1_201301290611	N-Nitrosopyrrolidine (NPYR)	ND	2.0	2.28	ng/L	114	(50-150)	30	6.4
QC Ref# 691497 - Endocrine Disruptors Positive Mode - SPE by LC-MS-MS						Analysis Date: 02/19/2013			
LCS1	1,7-Dimethylxanthine		100	97.1	ng/L	97	(60-140)		
LCS2	1,7-Dimethylxanthine		100	86.9	ng/L	87	(60-140)	30	11
MBLK	1,7-Dimethylxanthine			<5	ng/L				
MRL_CHK	1,7-Dimethylxanthine		5.0	4.25	ng/L	85	(50-150)		
MS_201301240147	1,7-Dimethylxanthine	ND	100	88.8	ng/L	89	(60-140)		
MSD_201301240147	1,7-Dimethylxanthine	ND	100	81.2	ng/L	81	(60-140)	30	8.9
LCS1	Acetaminophen		100	92.7	ng/L	93	(60-140)		
LCS2	Acetaminophen		100	84.6	ng/L	85	(60-140)	30	9.1
MBLK	Acetaminophen			<5	ng/L				
MRL_CHK	Acetaminophen		5.0	4.09	ng/L	82	(50-150)		
MS_201301240147	Acetaminophen	ND	100	103	ng/L	102	(60-140)		
MSD_201301240147	Acetaminophen	ND	100	96.7	ng/L	96	(60-140)	30	6.3
LCS1	Albuterol		100	118	ng/L	118	(60-140)		
LCS2	Albuterol		100	106	ng/L	106	(60-140)	30	11
MBLK	Albuterol			<5	ng/L				
MRL_CHK	Albuterol		5.0	4.63	ng/L	93	(50-150)		
MS_201301240147	Albuterol	ND	100	82.0	ng/L	79	(60-140)		
MSD_201301240147	Albuterol	ND	100	96.0	ng/L	93	(60-140)	30	16
LCS1	Amoxicillin (semi-quantitative)		400	449	ng/L	112	(60-140)		
LCS2	Amoxicillin (semi-quantitative)		400	392	ng/L	98	(60-140)	30	14
MBLK	Amoxicillin (semi-quantitative)			<20	ng/L				
MRL_CHK	Amoxicillin (semi-quantitative)		20	20.6	ng/L	103	(50-150)		
MS_201301240147	Amoxicillin (semi-quantitative)	ND	400	261	ng/L	65	(60-140)		
MSD_201301240147	Amoxicillin (semi-quantitative)	ND	400	255	ng/L	63	(60-140)	30	2.3
LCS1	Androstenedione		100	107	ng/L	107	(60-140)		
LCS2	Androstenedione		100	105	ng/L	105	(60-140)	30	1.9
MBLK	Androstenedione			<5	ng/L				
MRL_CHK	Androstenedione		5.0	4.64	ng/L	93	(50-150)		
MS_201301240147	Androstenedione	ND	100	101	ng/L	101	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201301240147	Androstenedione	ND	100	127	ng/L	127	(60-140)	30	23
LCS1	Atenolol		100	122	ng/L	122	(60-140)		
LCS2	Atenolol		100	88.2	ng/L	88	(60-140)	30	32
MBLK	Atenolol			<5	ng/L				
MRL_CHK	Atenolol		5.0	4.46	ng/L	89	(50-150)		
MS_201301240147	Atenolol	ND	100	127	ng/L	127	(60-140)		
MSD_201301240147	Atenolol	ND	100	124	ng/L	124	(60-140)	30	2.4
LCS1	Atrazine		100	113	ng/L	113	(60-140)		
LCS2	Atrazine		100	93.2	ng/L	93	(60-140)	30	19
MBLK	Atrazine			<5	ng/L				
MRL_CHK	Atrazine		5.0	4.64	ng/L	93	(50-150)		
MS_201301240147	Atrazine	ND	100	96.1	ng/L	96	(60-140)		
MSD_201301240147	Atrazine	ND	100	104	ng/L	104	(60-140)	30	7.9
LCS1	Azithromycin		400	434	ng/L	109	(60-140)		
LCS2	Azithromycin		400	411	ng/L	103	(60-140)	30	5.4
MBLK	Azithromycin			<20	ng/L				
MRL_CHK	Azithromycin		20	18.6	ng/L	93	(50-150)		
MS_201301240147	Azithromycin	ND	400	668	ng/L	167	(60-140)		
MSD_201301240147	Azithromycin	ND	400	494	ng/L	123	(60-140)	30	30
LCS1	Bezafibrate		100	101	ng/L	101	(60-140)		
LCS2	Bezafibrate		100	87.1	ng/L	87	(60-140)	30	15
MBLK	Bezafibrate			<5	ng/L				
MRL_CHK	Bezafibrate		5.0	4.33	ng/L	87	(50-150)		
MS_201301240147	Bezafibrate	ND	100	83.7	ng/L	83	(60-140)		
MSD_201301240147	Bezafibrate	ND	100	114	ng/L	114	(60-140)	30	31
LCS1	Bromacil		100	112	ng/L	112	(60-140)		
LCS2	Bromacil		100	98.2	ng/L	98	(60-140)	30	13
MBLK	Bromacil			<5	ng/L				
MRL_CHK	Bromacil		5.0	4.53	ng/L	91	(50-150)		
MS_201301240147	Bromacil	ND	100	96.8	ng/L	97	(60-140)		
MSD_201301240147	Bromacil	ND	100	117	ng/L	117	(60-140)	30	19
LCS1	Caffeine		100	113	ng/L	113	(60-140)		
LCS2	Caffeine		100	87.8	ng/L	88	(60-140)	30	25
MBLK	Caffeine			<5	ng/L				
MRL_CHK	Caffeine		5.0	4.06	ng/L	81	(50-150)		
MS_201301240147	Caffeine	ND	100	115	ng/L	115	(60-140)		
MSD_201301240147	Caffeine	ND	100	142	ng/L	142	(60-140)	30	21
LCS1	Carbadox		100	97.2	ng/L	97	(60-140)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Carbadox		100	92.3	ng/L	92	(60-140)	30	5.2
MBLK	Carbadox			<5	ng/L				
MRL_CHK	Carbadox		5.0	7.48	ng/L	150	(50-150)		
MS_201301240147	Carbadox	ND	100	81.3	ng/L	78	(60-140)		
MSD_201301240147	Carbadox	ND	100	109	ng/L	105	(60-140)	30	29
LCS1	Carbamazepine		100	107	ng/L	107	(60-140)		
LCS2	Carbamazepine		100	104	ng/L	104	(60-140)	30	2.8
MBLK	Carbamazepine			<5	ng/L				
MRL_CHK	Carbamazepine		5.0	5.53	ng/L	111	(50-150)		
MS_201301240147	Carbamazepine	ND	100	124	ng/L	123	(60-140)		
MSD_201301240147	Carbamazepine	ND	100	112	ng/L	112	(60-140)	30	10
LCS1	Carisoprodol		100	116	ng/L	116	(60-140)		
LCS2	Carisoprodol		100	113	ng/L	113	(60-140)	30	2.6
MBLK	Carisoprodol			<5	ng/L				
MRL_CHK	Carisoprodol		5.0	4.12	ng/L	82	(50-150)		
MS_201301240147	Carisoprodol	ND	100	86.9	ng/L	87	(60-140)		
MSD_201301240147	Carisoprodol	ND	100	112	ng/L	112	(60-140)	30	25
LCS1	Chloridazon		100	112	ng/L	112	(60-140)		
LCS2	Chloridazon		100	114	ng/L	114	(60-140)	30	1.8
MBLK	Chloridazon			<5	ng/L				
MRL_CHK	Chloridazon		5.0	5.63	ng/L	113	(50-150)		
MS_201301240147	Chloridazon	ND	100	94.2	ng/L	94	(60-140)		
MSD_201301240147	Chloridazon	ND	100	110	ng/L	110	(60-140)	30	16
LCS1	Chlorotoluron		100	116	ng/L	116	(60-140)		
LCS2	Chlorotoluron		100	94.8	ng/L	95	(60-140)	30	20
MBLK	Chlorotoluron			<5	ng/L				
MRL_CHK	Chlorotoluron		5.0	5.27	ng/L	105	(50-150)		
MS_201301240147	Chlorotoluron	ND	100	100	ng/L	100	(60-140)		
MSD_201301240147	Chlorotoluron	ND	100	116	ng/L	116	(60-140)	30	15
LCS1	Cimetidine		100	112	ng/L	112	(60-140)		
LCS2	Cimetidine		100	83.1	ng/L	83	(60-140)	30	30
MBLK	Cimetidine			<5	ng/L				
MRL_CHK	Cimetidine		5.0	4.48	ng/L	90	(50-150)		
MS_201301240147	Cimetidine	ND	100	114	ng/L	113	(60-140)		
MSD_201301240147	Cimetidine	ND	100	115	ng/L	114	(60-140)	30	0.87
LCS1	Cotinine		200	196	ng/L	98	(60-140)		
LCS2	Cotinine		200	215	ng/L	107	(60-140)	30	9.3
MBLK	Cotinine			<10	ng/L				

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Cotinine		10	8.88	ng/L	89	(50-150)		
MS_201301240147	Cotinine	ND	200	214	ng/L	107	(60-140)		
MSD_201301240147	Cotinine	ND	200	180	ng/L	90	(60-140)	30	17
LCS1	Cyanazine		100	113	ng/L	113	(60-140)		
LCS2	Cyanazine		100	108	ng/L	108	(60-140)	30	4.5
MBLK	Cyanazine			<5	ng/L				
MRL_CHK	Cyanazine		5.0	5.01	ng/L	100	(50-150)		
MS_201301240147	Cyanazine	ND	100	113	ng/L	113	(60-140)		
MSD_201301240147	Cyanazine	ND	100	107	ng/L	107	(60-140)	30	5.5
LCS1	DACT		100	106	ng/L	106	(60-140)		
LCS2	DACT		100	98.2	ng/L	98	(60-140)	30	7.6
MBLK	DACT			<5	ng/L				
MRL_CHK	DACT		5.0	5.53	ng/L	111	(50-150)		
MS_201301240147	DACT	ND	100	105	ng/L	104	(60-140)		
MSD_201301240147	DACT	ND	100	103	ng/L	102	(60-140)	30	1.9
LCS1	DEA		100	102	ng/L	102	(60-140)		
LCS2	DEA		100	102	ng/L	102	(60-140)	30	0.0
MBLK	DEA			<5	ng/L				
MRL_CHK	DEA		5.0	4.65	ng/L	93	(50-150)		
MS_201301240147	DEA	ND	100	102	ng/L	102	(60-140)		
MSD_201301240147	DEA	ND	100	113	ng/L	113	(60-140)	30	10
LCS1	DEET		20	23.8	ng/L	119	(60-140)		
LCS2	DEET		20	17.2	ng/L	86	(60-140)	30	33
MBLK	DEET			<6	ng/L				
MRL_CHK	DEET		1.0	0.902	ng/L	90	(50-150)		
MS_201301240147	DEET	ND	20	20.6	ng/L	102	(60-140)		
MSD_201301240147	DEET	ND	20	21.6	ng/L	107	(60-140)	30	4.7
LCS1	Dehydronifedipine		100	107	ng/L	107	(60-140)		
LCS2	Dehydronifedipine		100	91.4	ng/L	91	(60-140)	30	16
MBLK	Dehydronifedipine			<5	ng/L				
MRL_CHK	Dehydronifedipine		5.0	5.37	ng/L	107	(50-150)		
MS_201301240147	Dehydronifedipine	ND	100	99.2	ng/L	99	(60-140)		
MSD_201301240147	Dehydronifedipine	ND	100	122	ng/L	121	(60-140)	30	21
LCS1	DIA		100	125	ng/L	125	(60-140)		
LCS2	DIA		100	98.8	ng/L	99	(60-140)	30	23
MBLK	DIA			<5	ng/L				
MRL_CHK	DIA		5.0	4.83	ng/L	97	(50-150)		
MS_201301240147	DIA	ND	100	111	ng/L	111	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201301240147	DIA	ND	100	92.8	ng/L	93	(60-140)	30	18
LCS1	Diazepam		100	94.9	ng/L	95	(60-140)		
LCS2	Diazepam		100	87.0	ng/L	87	(60-140)	30	8.7
MBLK	Diazepam			<5	ng/L				
MRL_CHK	Diazepam		5.0	5.27	ng/L	105	(50-150)		
MS_201301240147	Diazepam	ND	100	101	ng/L	101	(60-140)		
MSD_201301240147	Diazepam	ND	100	97.2	ng/L	97	(60-140)	30	3.8
LCS1	Dilantin		400	476	ng/L	119	(60-140)		
LCS2	Dilantin		400	370	ng/L	93	(60-140)	30	25
MBLK	Dilantin			<20	ng/L				
MRL_CHK	Dilantin		20	16.9	ng/L	84	(50-150)		
MS_201301240147	Dilantin	ND	400	409	ng/L	102	(60-140)		
MSD_201301240147	Dilantin	ND	400	438	ng/L	109	(60-140)	30	6.8
LCS1	Diuron		100	103	ng/L	103	(60-140)		
LCS2	Diuron		100	104	ng/L	104	(60-140)	30	0.97
MBLK	Diuron			<5	ng/L				
MRL_CHK	Diuron		5.0	3.61	ng/L	72	(50-150)		
MS_201301240147	Diuron	ND	100	108	ng/L	108	(60-140)		
MSD_201301240147	Diuron	ND	100	94.2	ng/L	94	(60-140)	30	14
LCS1	Erythromycin		200	212	ng/L	106	(60-140)		
LCS2	Erythromycin		200	205	ng/L	102	(60-140)	30	3.4
MBLK	Erythromycin			<10	ng/L				
MRL_CHK	Erythromycin		10	13.4	ng/L	134	(50-150)		
MS_201301240147	Erythromycin	ND	200	256	ng/L	128	(60-140)		
MSD_201301240147	Erythromycin	ND	200	230	ng/L	115	(60-140)	30	11
LCS1	Flumequine		200	159	ng/L	80	(60-140)		
LCS2	Flumequine		200	186	ng/L	93	(60-140)	30	16
MBLK	Flumequine			<10	ng/L				
MRL_CHK	Flumequine		10	7.35	ng/L	74	(50-150)		
MS_201301240147	Flumequine	ND	200	156	ng/L	77	(60-140)		
MSD_201301240147	Flumequine	ND	200	186	ng/L	93	(60-140)	30	18
LCS1	Fluoxetine		100	110	ng/L	110	(60-140)		
LCS2	Fluoxetine		100	118	ng/L	118	(60-140)	30	7.0
MBLK	Fluoxetine			<10	ng/L				
MRL_CHK	Fluoxetine		5.0	5.96	ng/L	119	(50-150)		
MS_201301240147	Fluoxetine	ND	100	126	ng/L	126	(60-140)		
MSD_201301240147	Fluoxetine	ND	100	138	ng/L	138	(60-140)	30	9.1
LCS1	Isoproturon		400	387	ng/L	97	(60-140)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Isoproturon		400	369	ng/L	92	(60-140)	30	4.8
MBLK	Isoproturon			<20	ng/L				
MRL_CHK	Isoproturon		20	21.0	ng/L	105	(50-150)		
MS_201301240147	Isoproturon	ND	400	381	ng/L	95	(60-140)		
MSD_201301240147	Isoproturon	ND	400	452	ng/L	113	(60-140)	30	17
LCS1	Ketoprofen		100	103	ng/L	103	(60-140)		
LCS2	Ketoprofen		100	99.8	ng/L	100	(60-140)	30	3.2
MBLK	Ketoprofen			<5	ng/L				
MRL_CHK	Ketoprofen		5.0	5.02	ng/L	100	(50-150)		
MS_201301240147	Ketoprofen	ND	100	91.6	ng/L	91	(60-140)		
MSD_201301240147	Ketoprofen	ND	100	92.8	ng/L	92	(60-140)	30	1.3
LCS1	Ketorolac		100	109	ng/L	109	(60-140)		
LCS2	Ketorolac		100	101	ng/L	101	(60-140)	30	7.6
MBLK	Ketorolac			<5	ng/L				
MRL_CHK	Ketorolac		5.0	4.31	ng/L	86	(50-150)		
MS_201301240147	Ketorolac	ND	100	99.5	ng/L	100	(60-140)		
MSD_201301240147	Ketorolac	ND	100	86.4	ng/L	87	(60-140)	30	14
LCS1	Lidocaine		100	124	ng/L	124	(60-140)		
LCS2	Lidocaine		100	107	ng/L	107	(60-140)	30	15
MBLK	Lidocaine			<5	ng/L				
MRL_CHK	Lidocaine		5.0	5.72	ng/L	114	(50-150)		
MS_201301240147	Lidocaine	ND	100	116	ng/L	116	(60-140)		
MSD_201301240147	Lidocaine	ND	100	113	ng/L	113	(60-140)	30	3.5
LCS1	Lincomycin		200	197	ng/L	99	(60-140)		
LCS2	Lincomycin		200	230	ng/L	115	(60-140)	30	16
MBLK	Lincomycin			<10	ng/L				
MRL_CHK	Lincomycin		10	8.45	ng/L	85	(50-150)		
MS_201301240147	Lincomycin	ND	200	181	ng/L	90	(60-140)		
MSD_201301240147	Lincomycin	ND	200	227	ng/L	113	(60-140)	30	23
LCS1	Linuron		100	110	ng/L	110	(60-140)		
LCS2	Linuron		100	94.6	ng/L	95	(60-140)	30	15
MBLK	Linuron			<5	ng/L				
MRL_CHK	Linuron		5.0	5.04	ng/L	101	(50-150)		
MS_201301240147	Linuron	ND	100	104	ng/L	103	(60-140)		
MSD_201301240147	Linuron	ND	100	123	ng/L	122	(60-140)	30	17
LCS1	Lopressor		400	448	ng/L	112	(60-140)		
LCS2	Lopressor		400	406	ng/L	101	(60-140)	30	9.8
MBLK	Lopressor			<20	ng/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Lopressor		20	16.7	ng/L	84	(50-150)		
MS_201301240147	Lopressor	ND	400	399	ng/L	100	(60-140)		
MSD_201301240147	Lopressor	ND	400	366	ng/L	92	(60-140)	30	8.4
LCS1	Meclofenamic Acid		100	115	ng/L	115	(60-140)		
LCS2	Meclofenamic Acid		100	105	ng/L	105	(60-140)	30	9.1
MBLK	Meclofenamic Acid			<5	ng/L				
MRL_CHK	Meclofenamic Acid		5.0	4.82	ng/L	96	(50-150)		
MS_201301240147	Meclofenamic Acid	ND	100	107	ng/L	103	(60-140)		
MSD_201301240147	Meclofenamic Acid	ND	100	134	ng/L	131	(60-140)	30	23
LCS1	Meprobamate		100	89.3	ng/L	89	(60-140)		
LCS2	Meprobamate		100	96.7	ng/L	97	(60-140)	30	8.0
MBLK	Meprobamate			<5	ng/L				
MRL_CHK	Meprobamate		5.0	4.62	ng/L	92	(50-150)		
MS_201301240147	Meprobamate	ND	100	98.4	ng/L	98	(60-140)		
MSD_201301240147	Meprobamate	ND	100	94.4	ng/L	94	(60-140)	30	4.0
LCS1	Metazachlor		100	110	ng/L	110	(60-140)		
LCS2	Metazachlor		100	101	ng/L	101	(60-140)	30	8.5
MBLK	Metazachlor			<5	ng/L				
MRL_CHK	Metazachlor		5.0	4.55	ng/L	91	(50-150)		
MS_201301240147	Metazachlor	ND	100	100	ng/L	100	(60-140)		
MSD_201301240147	Metazachlor	ND	100	125	ng/L	125	(60-140)	30	21
LCS1	Nifedipine		400	376	ng/L	94	(60-140)		
LCS2	Nifedipine		400	366	ng/L	92	(60-140)	30	2.7
MBLK	Nifedipine			<20	ng/L				
MRL_CHK	Nifedipine		20	13.2	ng/L	66	(50-150)		
MS_201301240147	Nifedipine	ND	400	307	ng/L	76	(60-140)		
MSD_201301240147	Nifedipine	ND	400	305	ng/L	75	(60-140)	30	0.65
LCS1	Norethisterone		100	117	ng/L	117	(60-140)		
LCS2	Norethisterone		100	89.2	ng/L	89	(60-140)	30	27
MBLK	Norethisterone			<5	ng/L				
MRL_CHK	Norethisterone		5.0	4.88	ng/L	98	(50-150)		
MS_201301240147	Norethisterone	ND	100	106	ng/L	106	(60-140)		
MSD_201301240147	Norethisterone	ND	100	130	ng/L	130	(60-140)	30	19
LCS1	Oxolinic acid		100	105	ng/L	105	(60-140)		
LCS2	Oxolinic acid		100	93.1	ng/L	93	(60-140)	30	12
MBLK	Oxolinic acid			<5	ng/L				
MRL_CHK	Oxolinic acid		5.0	4.57	ng/L	91	(50-150)		
MS_201301240147	Oxolinic acid	ND	100	100	ng/L	99	(60-140)		

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201301240147	Oxolinic acid	ND	100	104	ng/L	103	(60-140)	30	3.9
LCS1	Pentoxifylline		100	107	ng/L	107	(60-140)		
LCS2	Pentoxifylline		100	91.2	ng/L	91	(60-140)	30	16
MBLK	Pentoxifylline			<5	ng/L				
MRL_CHK	Pentoxifylline		5.0	4.61	ng/L	92	(50-150)		
MS_201301240147	Pentoxifylline	ND	100	95.2	ng/L	95	(60-140)		
MSD_201301240147	Pentoxifylline	ND	100	113	ng/L	113	(60-140)	30	17
LCS1	Phenazone		100	105	ng/L	105	(60-140)		
LCS2	Phenazone		100	115	ng/L	115	(60-140)	30	9.1
MBLK	Phenazone			<5	ng/L				
MRL_CHK	Phenazone		5.0	5.22	ng/L	104	(50-150)		
MS_201301240147	Phenazone	ND	100	121	ng/L	121	(60-140)		
MSD_201301240147	Phenazone	ND	100	112	ng/L	112	(60-140)	30	7.7
LCS1	Primidone		100	85.2	ng/L	85	(60-140)		
LCS2	Primidone		100	102	ng/L	102	(60-140)	30	18
MBLK	Primidone			<5	ng/L				
MRL_CHK	Primidone		5.0	4.07	ng/L	81	(50-150)		
MS_201301240147	Primidone	ND	100	97.0	ng/L	97	(60-140)		
MSD_201301240147	Primidone	ND	100	88.9	ng/L	89	(60-140)	30	8.7
LCS1	Progesterone		100	92.1	ng/L	92	(60-140)		
LCS2	Progesterone		100	88.3	ng/L	88	(60-140)	30	4.2
MBLK	Progesterone			<5	ng/L				
MRL_CHK	Progesterone		5.0	5.09	ng/L	102	(50-150)		
MS_201301240147	Progesterone	ND	100	80.6	ng/L	80	(60-140)		
MSD_201301240147	Progesterone	ND	100	92.6	ng/L	92	(60-140)	30	14
LCS1	Propazine		100	112	ng/L	112	(60-140)		
LCS2	Propazine		100	107	ng/L	107	(60-140)	30	4.6
MBLK	Propazine			<5	ng/L				
MRL_CHK	Propazine		5.0	4.72	ng/L	94	(50-150)		
MS_201301240147	Propazine	ND	100	114	ng/L	114	(60-140)		
MSD_201301240147	Propazine	ND	100	103	ng/L	102	(60-140)	30	10
LCS1	Quinoline		100	120	ng/L	120	(60-140)		
LCS2	Quinoline		100	114	ng/L	114	(60-140)	30	5.1
MBLK	Quinoline			<5	ng/L				
MRL_CHK	Quinoline		5.0	5.80	ng/L	116	(50-150)		
MS_201301240147	Quinoline	ND	100	124	ng/L	121	(60-140)		
MSD_201301240147	Quinoline	ND	100	111	ng/L	108	(60-140)	30	11
LCS1	Simazine		100	116	ng/L	116	(60-140)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Simazine		100	113	ng/L	113	(60-140)	30	2.6
MBLK	Simazine			<5	ng/L				
MRL_CHK	Simazine		5.0	5.20	ng/L	104	(50-150)		
MS_201301240147	Simazine	ND	100	118	ng/L	118	(60-140)		
MSD_201301240147	Simazine	ND	100	117	ng/L	117	(60-140)	30	0.85
LCS1	Sulfachloropyridazine		100	98.6	ng/L	99	(60-140)		
LCS2	Sulfachloropyridazine		100	114	ng/L	114	(60-140)	30	15
MBLK	Sulfachloropyridazine			<5	ng/L				
MRL_CHK	Sulfachloropyridazine		5.0	4.42	ng/L	89	(50-150)		
MS_201301240147	Sulfachloropyridazine	ND	100	66.0	ng/L	66	(60-140)		
MSD_201301240147	Sulfachloropyridazine	ND	100	106	ng/L	106	(60-140)	30	<u>47</u>
LCS1	Sulfadiazine		100	96.4	ng/L	96	(60-140)		
LCS2	Sulfadiazine		100	115	ng/L	115	(60-140)	30	18
MBLK	Sulfadiazine			<5	ng/L				
MRL_CHK	Sulfadiazine		5.0	4.67	ng/L	94	(50-150)		
MS_201301240147	Sulfadiazine	ND	100	128	ng/L	128	(60-140)		
MSD_201301240147	Sulfadiazine	ND	100	110	ng/L	110	(60-140)	30	15
LCS1	Sulfadimethoxine		100	90.9	ng/L	91	(60-140)		
LCS2	Sulfadimethoxine		100	106	ng/L	106	(60-140)	30	15
MBLK	Sulfadimethoxine			<5	ng/L				
MRL_CHK	Sulfadimethoxine		5.0	4.93	ng/L	99	(50-150)		
MS_201301240147	Sulfadimethoxine	ND	100	111	ng/L	111	(60-140)		
MSD_201301240147	Sulfadimethoxine	ND	100	90.4	ng/L	90	(60-140)	30	21
LCS1	Sulfamerazine		100	112	ng/L	112	(60-140)		
LCS2	Sulfamerazine		100	116	ng/L	116	(60-140)	30	3.5
MBLK	Sulfamerazine			<5	ng/L				
MRL_CHK	Sulfamerazine		5.0	2.82	ng/L	57	(50-150)		
MS_201301240147	Sulfamerazine	ND	100	109	ng/L	109	(60-140)		
MSD_201301240147	Sulfamerazine	ND	100	133	ng/L	133	(60-140)	30	20
LCS1	Sulfamethazine		100	92.6	ng/L	93	(60-140)		
LCS2	Sulfamethazine		100	113	ng/L	113	(60-140)	30	20
MBLK	Sulfamethazine			<5	ng/L				
MRL_CHK	Sulfamethazine		5.0	5.60	ng/L	112	(50-150)		
MS_201301240147	Sulfamethazine	ND	100	115	ng/L	114	(60-140)		
MSD_201301240147	Sulfamethazine	ND	100	105	ng/L	105	(60-140)	30	9.1
LCS1	Sulfamethizole		100	85.5	ng/L	86	(60-140)		
LCS2	Sulfamethizole		100	101	ng/L	101	(60-140)	30	17
MBLK	Sulfamethizole			<5	ng/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Sulfamethizole		5.0	4.79	ng/L	96	(50-150)		
MS_201301240147	Sulfamethizole	ND	100	90.4	ng/L	90	(60-140)		
MSD_201301240147	Sulfamethizole	ND	100	75.8	ng/L	76	(60-140)	30	18
LCS1	Sulfamethoxazole		100	103	ng/L	103	(70-130)		
LCS2	Sulfamethoxazole		100	88.9	ng/L	89	(70-130)	30	15
MBLK	Sulfamethoxazole			<5	ng/L				
MRL_CHK	Sulfamethoxazole		5.0	4.40	ng/L	88	(50-150)		
MS_201301240147	Sulfamethoxazole	ND	100	91.8	ng/L	92	(60-140)		
MSD_201301240147	Sulfamethoxazole	ND	100	94.6	ng/L	94	(60-140)	30	3.0
LCS1	Sulfathiazole		100	91.1	ng/L	91	(60-140)		
LCS2	Sulfathiazole		100	108	ng/L	108	(60-140)	30	17
MBLK	Sulfathiazole			<5	ng/L				
MRL_CHK	Sulfathiazole		5.0	3.55	ng/L	71	(50-150)		
MS_201301240147	Sulfathiazole	ND	100	129	ng/L	129	(60-140)		
MSD_201301240147	Sulfathiazole	ND	100	114	ng/L	114	(60-140)	30	12
LCS1	TCEP		100	95.0	ng/L	95	(60-140)		
LCS2	TCEP		100	93.3	ng/L	93	(60-140)	30	1.8
MBLK	TCEP			<10	ng/L				
MRL_CHK	TCEP		5.0	5.49	ng/L	110	(50-150)		
MS_201301240147	TCEP	ND	100	78.8	ng/L	79	(60-140)		
MSD_201301240147	TCEP	ND	100	76.2	ng/L	76	(60-140)	30	3.4
LCS1	TCPP		100	116	ng/L	116	(40-160)		
LCS2	TCPP		100	100	ng/L	100	(40-160)	30	15
MBLK	TCPP			<100	ng/L				
MRL_CHK	TCPP		5.0	3.87	ng/L	78	(40-160)		
MS_201301240147	TCPP	ND	100	108	ng/L	106	(40-160)		
MSD_201301240147	TCPP	ND	100	119	ng/L	117	(40-160)	30	9.7
LCS1	TDCPP		400	332	ng/L	83	(40-160)		
LCS2	TDCPP		400	507	ng/L	127	(40-160)	30	<u>42</u>
MBLK	TDCPP			<100	ng/L				
MRL_CHK	TDCPP		20	19.3	ng/L	96	(40-160)		
MS_201301240147	TDCPP	ND	400	407	ng/L	100	(40-160)		
MSD_201301240147	TDCPP	ND	400	324	ng/L	80	(40-160)	30	23
LCS1	Testosterone		100	106	ng/L	106	(60-140)		
LCS2	Testosterone		100	101	ng/L	101	(60-140)	30	4.8
MBLK	Testosterone			<5	ng/L				
MRL_CHK	Testosterone		5.0	5.05	ng/L	101	(50-150)		
MS_201301240147	Testosterone	ND	100	107	ng/L	107	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201301240147	Testosterone	ND	100	105	ng/L	105	(60-140)	30	1.9
LCS1	Theobromine		100	110	ng/L	110	(60-140)		
LCS2	Theobromine		100	98.4	ng/L	98	(60-140)	30	11
MBLK	Theobromine			<5	ng/L				
MRL_CHK	Theobromine		5.0	3.27	ng/L	65	(50-150)		
MS_201301240147	Theobromine	ND	100	98.1	ng/L	98	(60-140)		
MSD_201301240147	Theobromine	ND	100	106	ng/L	106	(60-140)	30	7.7
LCS1	Theophylline		200	199	ng/L	100	(60-140)		
LCS2	Theophylline		200	223	ng/L	111	(60-140)	30	11
MBLK	Theophylline			<10	ng/L				
MRL_CHK	Theophylline		10	7.34	ng/L	73	(50-150)		
MS_201301240147	Theophylline	ND	200	195	ng/L	97	(60-140)		
MSD_201301240147	Theophylline	ND	200	252	ng/L	126	(60-140)	30	26
LCS1	Trimethoprim		100	91.8	ng/L	92	(60-140)		
LCS2	Trimethoprim		100	70.2	ng/L	70	(60-140)	30	27
MBLK	Trimethoprim			<5	ng/L				
MRL_CHK	Trimethoprim		5.0	4.52	ng/L	91	(50-150)		
MS_201301240147	Trimethoprim	ND	100	103	ng/L	102	(60-140)		
MSD_201301240147	Trimethoprim	ND	100	76.9	ng/L	76	(60-140)	30	29

QC Ref# 691498 - Endocrine Disruptors Negative Mode - SPE by LC-MS-MS
Analysis Date: 02/14/2013

LCS1	2,4-D		100	107	ng/L	107	(60-140)		
LCS2	2,4-D		100	111	ng/L	111	(60-140)	30	3.7
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	5.38	ng/L	108	(50-150)		
MS_201301240147	2,4-D	ND	100	107	ng/L	107	(60-140)		
MSD_201301240147	2,4-D	ND	100	96.4	ng/L	96	(60-140)	30	10
LCS1	4-nonylphenol - semi quantitative		200	189	ng/L	95	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	188	ng/L	94	(60-140)	30	0.53
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	13.8	ng/L	138	(50-150)		
MS_201301240147	4-nonylphenol - semi quantitative	ND	200	253	ng/L	127	(60-140)		
MSD_201301240147	4-nonylphenol - semi quantitative	ND	200	202	ng/L	101	(60-140)	30	22
LCS1	4-tert-octylphenol		100	104	ng/L	104	(60-140)		
LCS2	4-tert-octylphenol		100	110	ng/L	110	(60-140)	30	5.6
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	7.24	ng/L	145	(50-150)		
MS_201301240147	4-tert-octylphenol	ND	100	119	ng/L	119	(60-140)		
MSD_201301240147	4-tert-octylphenol	ND	100	117	ng/L	117	(60-140)	30	1.7

Spike recovery is already corrected for native results.

 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Acesulfame-K		400	414	ng/L	103	(60-140)		
LCS2	Acesulfame-K		400	396	ng/L	99	(60-140)	30	4.4
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	19.1	ng/L	96	(50-150)		
MS_201301240147	Acesulfame-K	ND	400	409	ng/L	102	(60-140)		
MSD_201301240147	Acesulfame-K	ND	400	412	ng/L	103	(60-140)	30	0.73
LCS1	Bendroflumethiazide		100	109	ng/L	109	(60-140)		
LCS2	Bendroflumethiazide		100	106	ng/L	106	(60-140)	30	2.8
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	3.96	ng/L	79	(50-150)		
MS_201301240147	Bendroflumethiazide	ND	100	122	ng/L	122	(60-140)		
MSD_201301240147	Bendroflumethiazide	ND	100	118	ng/L	118	(60-140)	30	3.3
LCS1	BPA		100	99.9	ng/L	100	(60-140)		
LCS2	BPA		100	102	ng/L	102	(60-140)	30	2.1
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	5.30	ng/L	106	(50-150)		
MS_201301240147	BPA	ND	100	105	ng/L	105	(60-140)		
MSD_201301240147	BPA	ND	100	104	ng/L	104	(60-140)	30	0.96
LCS1	Butalbital		100	98.0	ng/L	98	(60-140)		
LCS2	Butalbital		100	99.8	ng/L	100	(60-140)	30	1.8
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	4.20	ng/L	84	(50-150)		
MS_201301240147	Butalbital	ND	100	119	ng/L	119	(60-140)		
MSD_201301240147	Butalbital	ND	100	103	ng/L	103	(60-140)	30	14
LCS1	Butylparben		100	102	ng/L	102	(60-140)		
LCS2	Butylparben		100	105	ng/L	105	(60-140)	30	2.9
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	5.40	ng/L	108	(50-150)		
MS_201301240147	Butylparben	ND	100	110	ng/L	110	(60-140)		
MSD_201301240147	Butylparben	ND	100	104	ng/L	104	(60-140)	30	5.6
LCS1	Chloramphenicol		100	137	ng/L	137	(60-140)		
LCS2	Chloramphenicol		100	121	ng/L	121	(60-140)	30	12
MBLK	Chloramphenicol			<10	ng/L				
MRL_CHK	Chloramphenicol		5.0	6.01	ng/L	120	(50-150)		
MS_201301240147	Chloramphenicol	ND	100	134	ng/L	134	(60-140)		
MSD_201301240147	Chloramphenicol	ND	100	139	ng/L	139	(60-140)	30	3.7
LCS1	Clofibric Acid		100	107	ng/L	107	(60-140)		
LCS2	Clofibric Acid		100	113	ng/L	113	(60-140)	30	5.5

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	5.02	ng/L	100	(50-150)		
MS_201301240147	Clofibric Acid	ND	100	101	ng/L	101	(60-140)		
MSD_201301240147	Clofibric Acid	ND	100	95.6	ng/L	96	(60-140)	30	5.5
LCS1	Diclofenac		100	99.4	ng/L	99	(60-140)		
LCS2	Diclofenac		100	105	ng/L	105	(60-140)	30	5.5
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	6.48	ng/L	130	(50-150)		
MS_201301240147	Diclofenac	ND	100	105	ng/L	105	(60-140)		
MSD_201301240147	Diclofenac	ND	100	103	ng/L	102	(60-140)	30	1.9
LCS1	Estradiol		100	104	ng/L	104	(60-140)		
LCS2	Estradiol		100	104	ng/L	104	(60-140)	30	0.0
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	4.68	ng/L	94	(50-150)		
MS_201301240147	Estradiol	ND	100	108	ng/L	106	(60-140)		
MSD_201301240147	Estradiol	ND	100	107	ng/L	105	(60-140)	30	0.93
LCS1	Estrone		100	100	ng/L	101	(60-140)		
LCS2	Estrone		100	102	ng/L	102	(60-140)	30	0.99
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	5.17	ng/L	103	(50-150)		
MS_201301240147	Estrone	ND	100	108	ng/L	107	(60-140)		
MSD_201301240147	Estrone	ND	100	111	ng/L	110	(60-140)	30	2.7
LCS1	Ethinyl Estradiol - 17 alpha		100	120	ng/L	120	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	129	ng/L	129	(60-140)	30	7.2
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	5.49	ng/L	110	(50-150)		
MS_201301240147	Ethinyl Estradiol - 17 alpha	ND	100	123	ng/L	123	(60-140)		
MSD_201301240147	Ethinyl Estradiol - 17 alpha	ND	100	121	ng/L	121	(60-140)	30	1.6
LCS1	Ethylparaben		400	406	ng/L	102	(60-140)		
LCS2	Ethylparaben		400	396	ng/L	99	(60-140)	30	2.5
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	20.4	ng/L	102	(50-150)		
MS_201301240147	Ethylparaben	ND	400	486	ng/L	121	(60-140)		
MSD_201301240147	Ethylparaben	ND	400	479	ng/L	119	(60-140)	30	1.5
LCS1	Gemfibrozil		100	94.2	ng/L	94	(60-140)		
LCS2	Gemfibrozil		100	96.1	ng/L	96	(60-140)	30	2.0
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	4.56	ng/L	91	(50-150)		

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Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201301240147	Gemfibrozil	ND	100	102	ng/L	101	(60-140)		
MSD_201301240147	Gemfibrozil	ND	100	94.8	ng/L	94	(60-140)	30	7.3
LCS1	Ibuprofen		200	201	ng/L	100	(60-140)		
LCS2	Ibuprofen		200	186	ng/L	93	(60-140)	30	7.8
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	9.92	ng/L	99	(50-150)		
MS_201301240147	Ibuprofen	ND	200	197	ng/L	98	(60-140)		
MSD_201301240147	Ibuprofen	ND	200	179	ng/L	89	(60-140)	30	9.6
LCS1	Iohexal		200	195	ng/L	97	(60-140)		
LCS2	Iohexal		200	183	ng/L	91	(60-140)	30	6.3
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	9.69	ng/L	97	(50-150)		
MS_201301240147	Iohexal	ND	200	206	ng/L	103	(50-150)		
MSD_201301240147	Iohexal	ND	200	177	ng/L	88	(50-150)	30	15
LCS1	Iopromide		100	97.5	ng/L	98	(60-140)		
LCS2	Iopromide		100	97.4	ng/L	97	(60-140)	30	0.10
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	4.96	ng/L	99	(50-150)		
MS_201301240147	Iopromide	ND	100	102	ng/L	102	(50-150)		
MSD_201301240147	Iopromide	ND	100	101	ng/L	101	(50-150)	30	0.99
LCS1	Isobutylparaben		100	110	ng/L	110	(60-140)		
LCS2	Isobutylparaben		100	107	ng/L	107	(60-140)	30	2.8
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	6.50	ng/L	130	(50-150)		
MS_201301240147	Isobutylparaben	ND	100	102	ng/L	102	(60-140)		
MSD_201301240147	Isobutylparaben	ND	100	109	ng/L	108	(60-140)	30	6.6
LCS1	Methylparaben		400	391	ng/L	98	(60-140)		
LCS2	Methylparaben		400	385	ng/L	96	(60-140)	30	1.6
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	14.5	ng/L	72	(50-150)		
MS_201301240147	Methylparaben	ND	400	449	ng/L	111	(60-140)		
MSD_201301240147	Methylparaben	ND	400	429	ng/L	106	(60-140)	30	4.6
LCS1	Naproxen		200	189	ng/L	95	(60-140)		
LCS2	Naproxen		200	197	ng/L	98	(60-140)	30	4.2
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	8.77	ng/L	88	(50-150)		
MS_201301240147	Naproxen	ND	200	196	ng/L	98	(60-140)		
MSD_201301240147	Naproxen	ND	200	189	ng/L	95	(60-140)	30	3.6

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Propylparaben		100	103	ng/L	103	(60-140)		
LCS2	Propylparaben		100	108	ng/L	108	(60-140)	30	4.7
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	3.29	ng/L	66	(50-150)		
MS_201301240147	Propylparaben	ND	100	111	ng/L	111	(60-140)		
MSD_201301240147	Propylparaben	ND	100	107	ng/L	107	(60-140)	30	3.7
LCS1	Sucralose		2000	2170	ng/L	109	(60-140)		
LCS2	Sucralose		2000	2080	ng/L	104	(60-140)	30	4.2
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	81.9	ng/L	82	(50-150)		
MS_201301240147	Sucralose	ND	2000	2060	ng/L	103	(60-140)		
MSD_201301240147	Sucralose	ND	2000	2130	ng/L	107	(60-140)	30	3.3
LCS1	Triclosan		200	192	ng/L	96	(60-140)		
LCS2	Triclosan		200	213	ng/L	107	(60-140)	30	10
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	11.2	ng/L	112	(50-150)		
MS_201301240147	Triclosan	ND	200	182	ng/L	88	(60-140)		
MSD_201301240147	Triclosan	ND	200	184	ng/L	89	(60-140)	30	1.1
LCS1	Warfarin		100	113	ng/L	113	(60-140)		
LCS2	Warfarin		100	104	ng/L	104	(60-140)	30	8.3
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	3.74	ng/L	75	(50-150)		
MS_201301240147	Warfarin	ND	100	182	ng/L	<u>182</u>	(60-140)		
MSD_201301240147	Warfarin	ND	100	171	ng/L	<u>170</u>	(60-140)	30	6.2

QC Ref# 695348 - Nitrosamines by GCMS by EPA 521
Analysis Date: 02/25/2013

LCS3	N-Nitrosopiperidine (NPIP)		80	89.7	ng/L	112	(70-130)		
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	2.70	ng/L	135	(50-150)		
MS2_201301250374	N-Nitrosopiperidine (NPIP)		40	47.2	ng/L	118	(70-130)		
MSD2_201301250374	N-Nitrosopiperidine (NPIP)		40	48.5	ng/l	121	(70-130)	30	2.7

QC Ref# 695351 - Nitrosamines by GCMS by EPA 521
Analysis Date: 02/25/2013

LCS1	N-Nitrosopiperidine (NPIP)		40	43.2	ng/L	108	(70-130)		
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	1.88	ng/L	94	(50-150)		
MS1_201301290611	N-Nitrosopiperidine (NPIP)		2.0	2.01	ng/L	100	(50-150)		
MSD1_201301290611	N-Nitrosopiperidine (NPIP)		2.0	1.87	ng/l	94	(50-150)	30	7.2

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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750 Royal Oaks Drive, Suite 100
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Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attention: Brad Jeppson
Fax: 602-265-1422



DEB: Debbie.L.Frank
Project Manager



01114CA

Report: 446835
Project: SEDONA-AZ
Group: SEDONA-WRP CEC
Study

Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2012-1
California – NELAP	01114CA	New Hampshire	2959
California – ELAP	1422	New Jersey	CA 008
Colorado	Certified	New Mexico	Certified
Connecticut	PH-0107	New York	11320
Delaware	CA 006	North Carolina	06701
Florida	E871024	North Dakota	R-009
Georgia	947	Oregon	CA 200003-011
Guam	12-006r	Pennsylvania	68-565
Hawaii	Certified	Rhode Island	LAO00326
Idaho	Certified	South Carolina	87016001
Illinois	200033	South Dakota	Certified
Indiana	C-CA-01	Tennessee	TN02839
Kansas	E-10268	Texas	T104704230-13-5
Kentucky	90107	Utah	CA000062013
Louisiana	LA130008	Vermont	VT0114
Maine	CA0006	Virginia	00210
Maryland	224	Washington	C838
Commonwealth of Northern Marianas Is.	MP0004	West Virginia	9943 C
Massachusetts	M-CA006	Wisconsin	998316660
Michigan	9906	Wyoming	8TMS-L
		EPA Region 5	Certified

NELAP/TNI Recognized Accreditation Bodies - in 'BLUE'

Acknowledgement of Samples Received

Addr: Carollo
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Client ID: CAROLLO
 Folder #: 446835
 Project: SEDONA-AZ
 Sample Group: SEDONA-WRP CEC Study

Attn: Brad Jeppson
 Phone: 602-474-4132

Project Manager: Debbie.L.Frank
 Phone: (626) 386-1149

The following samples were received from you on **August 28, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201308280253	Ambient Groundwater (Injection Well)	08/27/2013 1422
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201308280254	Field Blank (for lab QA/QC)	08/27/2013 1420
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	

Test Description

- @DX_ABI_NEG -- Endocrine Disruptors Negative Mode - SPE
- @DX_ABI_POS -- Endocrine Disruptors Positive Mode - SPE
- @ML521_SPE8 -- Nitrosamines by GCMS

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Flags Legend:

R5 - MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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Samples Received on:
08/28/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		<u>Ambient Groundwater (Injection Well)</u>				
09/12/2013 16:55	Acesulfame-K	201308280253	31		ng/L	20
		<u>Field Blank (for lab QA/QC)</u>				
09/14/2013 22:05	N-Nitrosodibutylamine (NDBA)	201308280254	2.3		ng/L	2

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Samples Received on:
 08/28/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
Ambient Groundwater (Injection Well) (201308280253)					Sampled on 08/27/2013 1422			
EPA 521 - Nitrosamines by GCMS								
9/3/2013	09/14/2013	20:46 726114	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
9/3/2013	09/14/2013	20:46 726114	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:03 726081	(EPA 521)	NDMA-D6	101	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	09/25/2013	11:43 724945	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Bromacil	ND (R5)	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	DACT	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	DEA	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	DEET	ND	ng/L	10	1
	09/25/2013	11:43 724945	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	09/25/2013	11:43 724945	(LC-MS-MS)	DIA	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	09/25/2013	11:43	724945	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Lidocaine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Lopressor	ND	ng/L	20	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Meprobamate	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Phenazone	ND (R5)	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Primidone	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfadimethoxine	ND (R5)	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfamethoxazole	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	09/25/2013	11:43	724945	(LC-MS-MS)	TCEP	ND	ng/L	10	1

Rounding on totals after summation.
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	09/25/2013 11:43	724945	(LC-MS-MS)	T CPP	ND (R5)	ng/L	100	1
	09/25/2013 11:43	724945	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	09/25/2013 11:43	724945	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	09/25/2013 11:43	724945	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	09/25/2013 11:43	724945	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	09/25/2013 11:43	724945	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	09/12/2013 16:55	726744	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	09/12/2013 16:55	726744	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Acesulfame-K	31	ng/L	20	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	BPA	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	lohexal	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	09/12/2013 16:55	726744	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

Field Blank (for lab QA/QC) (201308280254)

Sampled on 08/27/2013 1420

EPA 521 - Nitrosamines by GCMS

9/3/2013	09/14/2013	22:05	726114	(EPA 521)	N-Nitrosodibutylamine (NDBA)	2.3	ng/L	2	1
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Rounding on totals after summation.
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Samples Received on:
 08/28/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
9/3/2013	09/14/2013	22:05 726114	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
9/3/2013	09/10/2013	14:49 726081	(EPA 521)	NDMA-D6	77	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	09/25/2013	05:05 724945	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Bromacil	ND (R5)	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	DACT	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	DEA	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	DEET	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	DIA	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Diuron	ND	ng/L	5	1

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Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	09/25/2013	05:05 724945	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Lidocaine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Lopressor	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Meprobamate	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Phenazone	ND (R5)	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Primidone	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfadimethoxine	ND (R5)	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfamethoxazole	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	09/25/2013	05:05 724945	(LC-MS-MS)	TCEP	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	TCPP	ND (R5)	ng/L	100	1
	09/25/2013	05:05 724945	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Testosterone	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 446835

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 08/28/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	09/25/2013	05:05 724945	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	09/25/2013	05:05 724945	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	09/12/2013	17:13 726744	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	09/12/2013	17:13 726744	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Acesulfame-K	ND	ng/L	20	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	BPA	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Clofibrac Acid	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Iohexal	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	09/12/2013	17:13 726744	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

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QC Ref # 724945 - Endocrine Disruptors Positive Mode - SPE

201308280253 Ambient Groundwater (Injection Well)
201308280254 Field Blank (for lab QA/QC)

Analysis Date: 09/25/2013

Analyzed by: ARH
Analyzed by: ARH

QC Ref # 726081 - Nitrosamines by GCMS

201308280253 Ambient Groundwater (Injection Well)
201308280254 Field Blank (for lab QA/QC)

Analysis Date: 09/10/2013

Analyzed by: KDT
Analyzed by: KDT

QC Ref # 726114 - Nitrosamines by GCMS

201308280253 Ambient Groundwater (Injection Well)
201308280254 Field Blank (for lab QA/QC)

Analysis Date: 09/14/2013

Analyzed by: KDT
Analyzed by: KDT

QC Ref # 726744 - Endocrine Disruptors Negative Mode - SPE

201308280253 Ambient Groundwater (Injection Well)
201308280254 Field Blank (for lab QA/QC)

Analysis Date: 09/12/2013

Analyzed by: ARH
Analyzed by: ARH

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 724945 - Endocrine Disruptors Positive Mode - SPE by LC-MS-MS						Analysis Date: 09/25/2013			
LCS1	1,7-Dimethylxanthine		100	93.5	ng/L	94	(60-140)		
LCS2	1,7-Dimethylxanthine		100	98.5	ng/L	99	(60-140)	30	5.2
MBLK	1,7-Dimethylxanthine			<5	ng/L				
MRL_CHK	1,7-Dimethylxanthine		5.0	6.70	ng/L	134	(50-150)		
MS_201308290165	1,7-Dimethylxanthine	ND	100	88.9	ng/L	89	(60-140)		
MSD_201308290165	1,7-Dimethylxanthine	ND	100	82.5	ng/L	82	(60-140)	30	7.5
LCS1	Acetaminophen		100	100	ng/L	100	(60-140)		
LCS2	Acetaminophen		100	110	ng/L	110	(60-140)	30	9.5
MBLK	Acetaminophen			<5	ng/L				
MRL_CHK	Acetaminophen		5.0	5.80	ng/L	116	(50-150)		
MS_201308290165	Acetaminophen	7.8	100	97.3	ng/L	90	(60-140)		
MSD_201308290165	Acetaminophen	7.8	100	109	ng/L	101	(60-140)	30	11
LCS1	Albuterol		100	92.8	ng/L	93	(60-140)		
LCS2	Albuterol		100	93.3	ng/L	93	(60-140)	30	0.54
MBLK	Albuterol			<5	ng/L				
MRL_CHK	Albuterol		5.0	4.03	ng/L	81	(50-150)		
MS_201308290165	Albuterol	ND	100	71.1	ng/L	71	(60-140)		
MSD_201308290165	Albuterol	ND	100	62.4	ng/L	62	(60-140)	30	13
LCS1	Amoxicillin (semi-quantitative)		400	466	ng/L	116	(60-140)		
LCS2	Amoxicillin (semi-quantitative)		400	357	ng/L	89	(60-140)	30	27
MBLK	Amoxicillin (semi-quantitative)			<20	ng/L				
MRL_CHK	Amoxicillin (semi-quantitative)		20	26.0	ng/L	130	(50-150)		
MS_201308290165	Amoxicillin (semi-quantitative)	ND	400	453	ng/L	113	(60-140)		
MSD_201308290165	Amoxicillin (semi-quantitative)	ND	400	453	ng/L	113	(60-140)	30	0.0
LCS1	Androstenedione		100	111	ng/L	111	(60-140)		
LCS2	Androstenedione		100	93.0	ng/L	93	(60-140)	30	18
MBLK	Androstenedione			<5	ng/L				
MRL_CHK	Androstenedione		5.0	4.10	ng/L	82	(50-150)		
MS_201308290165	Androstenedione	ND	100	105	ng/L	105	(60-140)		
MSD_201308290165	Androstenedione	ND	100	110	ng/L	110	(60-140)	30	4.7
LCS1	Atenolol		100	95.9	ng/L	96	(60-140)		
LCS2	Atenolol		100	105	ng/L	105	(60-140)	30	9.1
MBLK	Atenolol			<5	ng/L				
MRL_CHK	Atenolol		5.0	5.92	ng/L	118	(50-150)		
MS_201308290165	Atenolol	ND	100	129	ng/L	128	(60-140)		
MSD_201308290165	Atenolol	ND	100	124	ng/L	123	(60-140)	30	4.0

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Atrazine		100	114	ng/L	114	(60-140)		
LCS2	Atrazine		100	94.2	ng/L	94	(60-140)	30	19
MBLK	Atrazine			<5	ng/L				
MRL_CHK	Atrazine		5.0	4.79	ng/L	96	(50-150)		
MS_201308290165	Atrazine	ND	100	95.3	ng/L	95	(60-140)		
MSD_201308290165	Atrazine	ND	100	108	ng/L	108	(60-140)	30	13
LCS1	Azithromycin		400	344	ng/L	86	(60-140)		
LCS2	Azithromycin		400	395	ng/L	99	(60-140)	30	14
MBLK	Azithromycin			<20	ng/L				
MRL_CHK	Azithromycin		20	29.6	ng/L	148	(50-150)		
MS_201308290165	Azithromycin	ND	400	4310	ng/L	1080	(60-140)		
MSD_201308290165	Azithromycin	ND	400	2520	ng/L	629	(60-140)	30	52
LCS1	Bezafibrate		100	117	ng/L	117	(60-140)		
LCS2	Bezafibrate		100	112	ng/L	112	(60-140)	30	4.4
MBLK	Bezafibrate			<5	ng/L				
MRL_CHK	Bezafibrate		5.0	4.97	ng/L	99	(50-150)		
MS_201308290165	Bezafibrate	ND	100	126	ng/L	126	(60-140)		
MSD_201308290165	Bezafibrate	ND	100	126	ng/L	126	(60-140)	30	0.0
LCS1	Bromacil		100	112	ng/L	113	(60-140)		
LCS2	Bromacil		100	81.0	ng/L	81	(60-140)	30	33
MBLK	Bromacil			<5	ng/L				
MRL_CHK	Bromacil		5.0	5.65	ng/L	113	(50-150)		
MS_201308290165	Bromacil	ND	100	61.2	ng/L	61	(60-140)		
MSD_201308290165	Bromacil	ND	100	70.6	ng/L	71	(60-140)	30	14
LCS1	Caffeine		100	95.9	ng/L	96	(70-130)		
LCS2	Caffeine		100	136	ng/L	136	(70-130)	30	35
MBLK	Caffeine			<5	ng/L				
MRL_CHK	Caffeine		5.0	6.42	ng/L	128	(50-150)		
MS_201308290165	Caffeine	ND	100	106	ng/L	105	(60-140)		
MSD_201308290165	Caffeine	ND	100	122	ng/L	120	(60-140)	30	14
LCS1	Carbadox		100	89.6	ng/L	90	(60-140)		
LCS2	Carbadox		100	94.9	ng/L	95	(60-140)	30	5.6
MBLK	Carbadox			<5	ng/L				
MRL_CHK	Carbadox		5.0	4.24	ng/L	85	(50-150)		
MS_201308290165	Carbadox	ND	100	70.1	ng/L	70	(60-140)		
MSD_201308290165	Carbadox	ND	100	78.6	ng/L	78	(60-140)	30	11
LCS1	Carbamazepine		100	90.5	ng/L	91	(60-140)		
LCS2	Carbamazepine		100	89.8	ng/L	90	(60-140)	30	0.78

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Carbamazepine			<5	ng/L				
MRL_CHK	Carbamazepine		5.0	4.57	ng/L	91	(50-150)		
MS_201308290165	Carbamazepine	ND	100	33.8	ng/L	<u>34</u>	(60-140)		
MSD_201308290165	Carbamazepine	ND	100	47.6	ng/L	<u>48</u>	(60-140)	30	<u>34</u>
LCS1	Carisoprodol		100	108	ng/L	108	(60-140)		
LCS2	Carisoprodol		100	115	ng/L	115	(60-140)	30	6.3
MBLK	Carisoprodol			<5	ng/L				
MRL_CHK	Carisoprodol		5.0	4.75	ng/L	95	(50-150)		
MS_201308290165	Carisoprodol	ND	100	87.8	ng/L	88	(60-140)		
MSD_201308290165	Carisoprodol	ND	100	86.1	ng/L	86	(60-140)	30	2.0
LCS1	Chloridazon		100	98.0	ng/L	98	(60-140)		
LCS2	Chloridazon		100	95.8	ng/L	96	(60-140)	30	2.4
MBLK	Chloridazon			<5	ng/L				
MRL_CHK	Chloridazon		5.0	5.62	ng/L	112	(50-150)		
MS_201308290165	Chloridazon	ND	100	28.7	ng/L	<u>29</u>	(60-140)		
MSD_201308290165	Chloridazon	ND	100	33.3	ng/L	<u>33</u>	(60-140)	30	15
LCS1	Chlorotoluron		100	101	ng/L	101	(60-140)		
LCS2	Chlorotoluron		100	113	ng/L	113	(60-140)	30	11
MBLK	Chlorotoluron			<5	ng/L				
MRL_CHK	Chlorotoluron		5.0	4.24	ng/L	85	(50-150)		
MS_201308290165	Chlorotoluron	ND	100	108	ng/L	108	(60-140)		
MSD_201308290165	Chlorotoluron	ND	100	115	ng/L	115	(60-140)	30	6.3
LCS1	Cimetidine		100	103	ng/L	103	(60-140)		
LCS2	Cimetidine		100	89.6	ng/L	90	(60-140)	30	14
MBLK	Cimetidine			<5	ng/L				
MRL_CHK	Cimetidine		5.0	5.68	ng/L	114	(50-150)		
MS_201308290165	Cimetidine	ND	100	118	ng/L	118	(60-140)		
MSD_201308290165	Cimetidine	ND	100	121	ng/L	121	(60-140)	30	2.5
LCS1	Cotinine		200	203	ng/L	101	(60-140)		
LCS2	Cotinine		200	201	ng/L	100	(60-140)	30	0.99
MBLK	Cotinine			<10	ng/L				
MRL_CHK	Cotinine		10	11.5	ng/L	115	(50-150)		
MS_201308290165	Cotinine	ND	200	193	ng/L	97	(60-140)		
MSD_201308290165	Cotinine	ND	200	194	ng/L	97	(60-140)	30	0.52
LCS1	Cyanazine		100	115	ng/L	115	(60-140)		
LCS2	Cyanazine		100	95.0	ng/L	95	(60-140)	30	19
MBLK	Cyanazine			<5	ng/L				
MRL_CHK	Cyanazine		5.0	5.57	ng/L	111	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201308290165	Cyanazine	ND	100	79.5	ng/L	80	(60-140)		
MSD_201308290165	Cyanazine	ND	100	90.2	ng/L	90	(60-140)	30	13
LCS1	DACT		100	121	ng/L	121	(60-140)		
LCS2	DACT		100	126	ng/L	126	(60-140)	30	4.0
MBLK	DACT			<5	ng/L				
MRL_CHK	DACT		5.0	4.24	ng/L	85	(50-150)		
MS_201308290165	DACT	ND	100	112	ng/L	112	(60-140)		
MSD_201308290165	DACT	ND	100	127	ng/L	127	(60-140)	30	13
LCS1	DEA		100	112	ng/L	112	(60-140)		
LCS2	DEA		100	106	ng/L	106	(60-140)	30	5.5
MBLK	DEA			<5	ng/L				
MRL_CHK	DEA		5.0	5.80	ng/L	116	(50-150)		
MS_201308290165	DEA	ND	100	96.3	ng/L	96	(60-140)		
MSD_201308290165	DEA	ND	100	99.9	ng/L	100	(60-140)	30	3.7
LCS1	DEET		40	42.4	ng/L	106	(70-130)		
LCS2	DEET		40	33.8	ng/L	84	(70-130)	30	23
MBLK	DEET			<6	ng/L				
MRL_CHK	DEET		2.0	2.32	ng/L	116	(50-150)		
MS_201308290165	DEET	ND	40	41.2	ng/L	89	(60-140)		
MSD_201308290165	DEET	ND	40	51.6	ng/L	114	(60-140)	30	22
LCS1	Dehydronifedipine		100	117	ng/L	117	(60-140)		
LCS2	Dehydronifedipine		100	92.4	ng/L	93	(60-140)	30	23
MBLK	Dehydronifedipine			<5	ng/L				
MRL_CHK	Dehydronifedipine		5.0	5.93	ng/L	119	(50-150)		
MS_201308290165	Dehydronifedipine	ND	100	70.6	ng/L	70	(60-140)		
MSD_201308290165	Dehydronifedipine	ND	100	65.5	ng/L	65	(60-140)	30	7.5
LCS1	DIA		100	103	ng/L	103	(60-140)		
LCS2	DIA		100	97.5	ng/L	98	(60-140)	30	5.5
MBLK	DIA			<5	ng/L				
MRL_CHK	DIA		5.0	4.86	ng/L	97	(50-150)		
MS_201308290165	DIA	ND	100	89.1	ng/L	89	(60-140)		
MSD_201308290165	DIA	ND	100	83.3	ng/L	83	(60-140)	30	6.7
LCS1	Diazepam		100	133	ng/L	133	(60-140)		
LCS2	Diazepam		100	111	ng/L	111	(60-140)	30	18
MBLK	Diazepam			<5	ng/L				
MRL_CHK	Diazepam		5.0	3.58	ng/L	72	(50-150)		
MS_201308290165	Diazepam	ND	100	108	ng/L	108	(60-140)		
MSD_201308290165	Diazepam	ND	100	94.0	ng/L	94	(60-140)	30	14

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Dilantin		400	382	ng/L	96	(60-140)		
LCS2	Dilantin		400	432	ng/L	108	(60-140)	30	12
MBLK	Dilantin			<20	ng/L				
MRL_CHK	Dilantin		20	21.4	ng/L	107	(50-150)		
MS_201308290165	Dilantin	ND	400	394	ng/L	98	(60-140)		
MSD_201308290165	Dilantin	ND	400	467	ng/L	116	(60-140)	30	17
LCS1	Diuron		100	108	ng/L	108	(60-140)		
LCS2	Diuron		100	91.7	ng/L	92	(60-140)	30	16
MBLK	Diuron			<5	ng/L				
MRL_CHK	Diuron		5.0	4.91	ng/L	98	(50-150)		
MS_201308290165	Diuron	ND	100	73.3	ng/L	72	(60-140)		
MSD_201308290165	Diuron	ND	100	79.1	ng/L	78	(60-140)	30	7.6
LCS1	Erythromycin		200	208	ng/L	104	(60-140)		
LCS2	Erythromycin		200	266	ng/L	133	(60-140)	30	25
MBLK	Erythromycin			<10	ng/L				
MRL_CHK	Erythromycin		10	14.9	ng/L	149	(50-150)		
MS_201308290165	Erythromycin	ND	200	471	ng/L	234	(60-140)		
MSD_201308290165	Erythromycin	ND	200	416	ng/L	206	(60-140)	30	12
LCS1	Flumequine		200	198	ng/L	99	(60-140)		
LCS2	Flumequine		200	180	ng/L	90	(60-140)	30	9.5
MBLK	Flumequine			<10	ng/L				
MRL_CHK	Flumequine		10	10.2	ng/L	102	(50-150)		
MS_201308290165	Flumequine	ND	200	170	ng/L	85	(60-140)		
MSD_201308290165	Flumequine	ND	200	176	ng/L	88	(60-140)	30	3.5
LCS1	Fluoxetine		100	93.6	ng/L	94	(60-140)		
LCS2	Fluoxetine		100	93.6	ng/L	94	(60-140)	30	0.0
MBLK	Fluoxetine			<10	ng/L				
MRL_CHK	Fluoxetine		5.0	7.46	ng/L	149	(50-150)		
MS_201308290165	Fluoxetine	ND	100	132	ng/L	114	(60-140)		
MSD_201308290165	Fluoxetine	ND	100	124	ng/L	105	(60-140)	30	6.3
LCS1	Isoproturon		400	328	ng/L	82	(60-140)		
LCS2	Isoproturon		400	387	ng/L	97	(60-140)	30	17
MBLK	Isoproturon			<20	ng/L				
MRL_CHK	Isoproturon		20	16.8	ng/L	84	(50-150)		
MS_201308290165	Isoproturon	ND	400	338	ng/L	85	(60-140)		
MSD_201308290165	Isoproturon	ND	400	328	ng/L	82	(60-140)	30	3.0
LCS1	Ketoprofen		100	84.4	ng/L	84	(60-140)		
LCS2	Ketoprofen		100	101	ng/L	101	(60-140)	30	18

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Ketoprofen			<5	ng/L				
MRL_CHK	Ketoprofen		5.0	5.48	ng/L	110	(50-150)		
MS_201308290165	Ketoprofen	ND	100	209	ng/L	<u>204</u>	(60-140)		
MSD_201308290165	Ketoprofen	ND	100	161	ng/L	<u>156</u>	(60-140)	30	26
LCS1	Ketorolac		100	90.3	ng/L	90	(60-140)		
LCS2	Ketorolac		100	91.4	ng/L	91	(60-140)	30	1.2
MBLK	Ketorolac			<5	ng/L				
MRL_CHK	Ketorolac		5.0	4.14	ng/L	83	(50-150)		
MS_201308290165	Ketorolac	ND	100	61.9	ng/L	62	(60-140)		
MSD_201308290165	Ketorolac	ND	100	64.0	ng/L	64	(60-140)	30	3.3
LCS1	Lidocaine		100	96.0	ng/L	96	(60-140)		
LCS2	Lidocaine		100	94.4	ng/L	94	(60-140)	30	1.7
MBLK	Lidocaine			<5	ng/L				
MRL_CHK	Lidocaine		5.0	4.75	ng/L	95	(50-150)		
MS_201308290165	Lidocaine	ND	100	136	ng/L	136	(60-140)		
MSD_201308290165	Lidocaine	ND	100	135	ng/L	135	(60-140)	30	1.5
LCS1	Lincomycin		200	206	ng/L	103	(60-140)		
LCS2	Lincomycin		200	158	ng/L	79	(60-140)	30	26
MBLK	Lincomycin			<10	ng/L				
MRL_CHK	Lincomycin		10	10.1	ng/L	101	(50-150)		
MS_201308290165	Lincomycin	ND	200	225	ng/L	112	(60-140)		
MSD_201308290165	Lincomycin	ND	200	265	ng/L	132	(60-140)	30	16
LCS1	Linuron		100	101	ng/L	101	(60-140)		
LCS2	Linuron		100	85.4	ng/L	85	(60-140)	30	17
MBLK	Linuron			<5	ng/L				
MRL_CHK	Linuron		5.0	6.99	ng/L	140	(50-150)		
MS_201308290165	Linuron	ND	100	112	ng/L	111	(60-140)		
MSD_201308290165	Linuron	ND	100	88.5	ng/L	88	(60-140)	30	23
LCS1	Lopressor		400	395	ng/L	99	(60-140)		
LCS2	Lopressor		400	395	ng/L	99	(60-140)	30	0.0
MBLK	Lopressor			<20	ng/L				
MRL_CHK	Lopressor		20	19.7	ng/L	99	(50-150)		
MS_201308290165	Lopressor	ND	400	584	ng/L	<u>146</u>	(60-140)		
MSD_201308290165	Lopressor	ND	400	664	ng/L	<u>166</u>	(60-140)	30	13
LCS1	Meclofenamic Acid		100	89.8	ng/L	90	(60-140)		
LCS2	Meclofenamic Acid		100	96.0	ng/L	96	(60-140)	30	6.7
MBLK	Meclofenamic Acid			<5	ng/L				
MRL_CHK	Meclofenamic Acid		5.0	7.09	ng/L	142	(50-150)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201308290165	Meclofenamic Acid	ND	100	96.1	ng/L	96	(60-140)		
MSD_201308290165	Meclofenamic Acid	ND	100	95.4	ng/L	95	(60-140)	30	0.73
LCS1	Meprobamate		100	93.4	ng/L	94	(60-140)		
LCS2	Meprobamate		100	105	ng/L	105	(60-140)	30	12
MBLK	Meprobamate			<5	ng/L				
MRL_CHK	Meprobamate		5.0	5.24	ng/L	105	(50-150)		
MS_201308290165	Meprobamate	ND	100	68.8	ng/L	69	(60-140)		
MSD_201308290165	Meprobamate	ND	100	62.7	ng/L	63	(60-140)	30	9.3
LCS1	Metazachlor		100	117	ng/L	117	(60-140)		
LCS2	Metazachlor		100	88.1	ng/L	88	(60-140)	30	28
MBLK	Metazachlor			<5	ng/L				
MRL_CHK	Metazachlor		5.0	4.95	ng/L	99	(50-150)		
MS_201308290165	Metazachlor	ND	100	99.1	ng/L	99	(60-140)		
MSD_201308290165	Metazachlor	ND	100	122	ng/L	122	(60-140)	30	21
LCS1	Metolachlor		100	121	ng/L	121	(60-140)		
LCS2	Metolachlor		100	98.4	ng/L	98	(60-140)	30	21
MBLK	Metolachlor			<5	ng/L				
MRL_CHK	Metolachlor		5.0	3.96	ng/L	79	(50-150)		
MS_201308290165	Metolachlor	ND	100	91.0	ng/L	91	(60-140)		
MSD_201308290165	Metolachlor	ND	100	98.5	ng/L	98	(60-140)	30	7.9
LCS1	Nifedipine		400	389	ng/L	97	(60-140)		
LCS2	Nifedipine		400	388	ng/L	97	(60-140)	30	0.26
MBLK	Nifedipine			<20	ng/L				
MRL_CHK	Nifedipine		20	14.6	ng/L	73	(50-150)		
MS_201308290165	Nifedipine	ND	400	590	ng/L	<u>147</u>	(60-140)		
MSD_201308290165	Nifedipine	ND	400	680	ng/L	<u>169</u>	(60-140)	30	14
LCS1	Norethisterone		100	92.8	ng/L	93	(60-140)		
LCS2	Norethisterone		100	95.1	ng/L	95	(60-140)	30	2.5
MBLK	Norethisterone			<5	ng/L				
MRL_CHK	Norethisterone		5.0	3.10	ng/L	62	(50-150)		
MS_201308290165	Norethisterone	ND	100	73.6	ng/L	74	(60-140)		
MSD_201308290165	Norethisterone	ND	100	89.7	ng/L	90	(60-140)	30	20
LCS1	Oxolinic acid		100	92.4	ng/L	92	(60-140)		
LCS2	Oxolinic acid		100	90.0	ng/L	90	(60-140)	30	2.6
MBLK	Oxolinic acid			<5	ng/L				
MRL_CHK	Oxolinic acid		5.0	4.42	ng/L	88	(50-150)		
MS_201308290165	Oxolinic acid	ND	100	88.5	ng/L	89	(60-140)		
MSD_201308290165	Oxolinic acid	ND	100	101	ng/L	101	(60-140)	30	13

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Pentoxifylline		100	96.2	ng/L	96	(60-140)		
LCS2	Pentoxifylline		100	114	ng/L	114	(60-140)	30	17
MBLK	Pentoxifylline			<5	ng/L				
MRL_CHK	Pentoxifylline		5.0	5.23	ng/L	105	(50-150)		
MS_201308290165	Pentoxifylline	ND	100	138	ng/L	138	(60-140)		
MSD_201308290165	Pentoxifylline	ND	100	93.6	ng/L	94	(60-140)	30	<u>38</u>
LCS1	Phenazone		100	114	ng/L	114	(60-140)		
LCS2	Phenazone		100	78.8	ng/L	79	(60-140)	30	<u>37</u>
MBLK	Phenazone			<5	ng/L				
MRL_CHK	Phenazone		5.0	6.53	ng/L	131	(50-150)		
MS_201308290165	Phenazone	ND	100	93.9	ng/L	94	(60-140)		
MSD_201308290165	Phenazone	ND	100	123	ng/L	123	(60-140)	30	27
LCS1	Primidone		100	98.9	ng/L	99	(60-140)		
LCS2	Primidone		100	98.7	ng/L	99	(60-140)	30	0.20
MBLK	Primidone			<5	ng/L				
MRL_CHK	Primidone		5.0	4.53	ng/L	91	(50-150)		
MS_201308290165	Primidone	ND	100	86.1	ng/L	85	(60-140)		
MSD_201308290165	Primidone	ND	100	94.0	ng/L	93	(60-140)	30	8.8
LCS1	Progesterone		100	90.8	ng/L	91	(60-140)		
LCS2	Progesterone		100	115	ng/L	115	(60-140)	30	24
MBLK	Progesterone			<5	ng/L				
MRL_CHK	Progesterone		5.0	5.45	ng/L	109	(50-150)		
MS_201308290165	Progesterone	ND	100	106	ng/L	106	(60-140)		
MSD_201308290165	Progesterone	ND	100	104	ng/L	103	(60-140)	30	1.9
LCS1	Propazine		100	110	ng/L	110	(60-140)		
LCS2	Propazine		100	85.5	ng/L	86	(60-140)	30	25
MBLK	Propazine			<5	ng/L				
MRL_CHK	Propazine		5.0	4.20	ng/L	84	(50-150)		
MS_201308290165	Propazine	ND	100	101	ng/L	101	(60-140)		
MSD_201308290165	Propazine	ND	100	96.6	ng/L	96	(60-140)	30	4.5
LCS1	Quinoline		100	121	ng/L	121	(60-140)		
LCS2	Quinoline		100	110	ng/L	110	(60-140)	30	9.5
MBLK	Quinoline			<5	ng/L				
MRL_CHK	Quinoline		5.0	3.92	ng/L	78	(50-150)		
MS_201308290165	Quinoline	ND	100	96.9	ng/L	97	(60-140)		
MSD_201308290165	Quinoline	ND	100	112	ng/L	112	(60-140)	30	15
LCS1	Simazine		100	103	ng/L	103	(60-140)		
LCS2	Simazine		100	94.4	ng/L	94	(60-140)	30	8.7

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Simazine			<5	ng/L				
MRL_CHK	Simazine		5.0	5.49	ng/L	110	(50-150)		
MS_201308290165	Simazine	ND	100	107	ng/L	107	(60-140)		
MSD_201308290165	Simazine	ND	100	103	ng/L	103	(60-140)	30	3.8
LCS1	Sulfachloropyridazine		100	88.3	ng/L	88	(60-140)		
LCS2	Sulfachloropyridazine		100	106	ng/L	106	(60-140)	30	18
MBLK	Sulfachloropyridazine			<5	ng/L				
MRL_CHK	Sulfachloropyridazine		5.0	4.77	ng/L	96	(50-150)		
MS_201308290165	Sulfachloropyridazine	ND	100	70.8	ng/L	71	(60-140)		
MSD_201308290165	Sulfachloropyridazine	ND	100	77.8	ng/L	78	(60-140)	30	9.3
LCS1	Sulfadiazine		100	125	ng/L	125	(60-140)		
LCS2	Sulfadiazine		100	105	ng/L	105	(60-140)	30	17
MBLK	Sulfadiazine			<5	ng/L				
MRL_CHK	Sulfadiazine		5.0	5.11	ng/L	102	(50-150)		
MS_201308290165	Sulfadiazine	ND	100	122	ng/L	120	(60-140)		
MSD_201308290165	Sulfadiazine	ND	100	99.7	ng/L	98	(60-140)	30	20
LCS1	Sulfadimethoxine		100	95.8	ng/L	96	(60-140)		
LCS2	Sulfadimethoxine		100	66.4	ng/L	66	(60-140)	30	<u>36</u>
MBLK	Sulfadimethoxine			<5	ng/L				
MRL_CHK	Sulfadimethoxine		5.0	4.58	ng/L	92	(50-150)		
MS_201308290165	Sulfadimethoxine	ND	100	80.9	ng/L	80	(60-140)		
MSD_201308290165	Sulfadimethoxine	ND	100	89.9	ng/L	89	(60-140)	30	11
LCS1	Sulfamerazine		100	108	ng/L	108	(60-140)		
LCS2	Sulfamerazine		100	98.2	ng/L	98	(60-140)	30	9.5
MBLK	Sulfamerazine			<5	ng/L				
MRL_CHK	Sulfamerazine		5.0	4.72	ng/L	94	(50-150)		
MS_201308290165	Sulfamerazine	ND	100	95.6	ng/L	95	(60-140)		
MSD_201308290165	Sulfamerazine	ND	100	97.0	ng/L	96	(60-140)	30	1.5
LCS1	Sulfamethazine		100	102	ng/L	102	(60-140)		
LCS2	Sulfamethazine		100	86.2	ng/L	86	(60-140)	30	17
MBLK	Sulfamethazine			<5	ng/L				
MRL_CHK	Sulfamethazine		5.0	5.14	ng/L	103	(50-150)		
MS_201308290165	Sulfamethazine	ND	100	81.9	ng/L	82	(60-140)		
MSD_201308290165	Sulfamethazine	ND	100	93.6	ng/L	93	(60-140)	30	13
LCS1	Sulfamethizole		100	111	ng/L	111	(60-140)		
LCS2	Sulfamethizole		100	103	ng/L	103	(60-140)	30	7.5
MBLK	Sulfamethizole			<5	ng/L				
MRL_CHK	Sulfamethizole		5.0	4.69	ng/L	94	(50-150)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201308290165	Sulfamethizole	ND	100	119	ng/L	118	(60-140)		
MSD_201308290165	Sulfamethizole	ND	100	110	ng/L	110	(60-140)	30	7.9
LCS1	Sulfamethoxazole		100	93.1	ng/L	93	(70-130)		
LCS2	Sulfamethoxazole		100	87.1	ng/L	87	(70-130)	30	6.7
MBLK	Sulfamethoxazole			<5	ng/L				
MRL_CHK	Sulfamethoxazole		5.0	4.80	ng/L	96	(50-150)		
MS_201308290165	Sulfamethoxazole	ND	100	79.7	ng/L	80	(60-140)		
MSD_201308290165	Sulfamethoxazole	ND	100	72.7	ng/L	73	(60-140)	30	9.2
LCS1	Sulfathiazole		100	124	ng/L	125	(60-140)		
LCS2	Sulfathiazole		100	99.5	ng/L	100	(60-140)	30	23
MBLK	Sulfathiazole			<5	ng/L				
MRL_CHK	Sulfathiazole		5.0	5.25	ng/L	105	(50-150)		
MS_201308290165	Sulfathiazole	ND	100	99.1	ng/L	99	(60-140)		
MSD_201308290165	Sulfathiazole	ND	100	107	ng/L	107	(60-140)	30	7.7
LCS1	TCEP		100	91.2	ng/L	91	(60-140)		
LCS2	TCEP		100	98.4	ng/L	98	(60-140)	30	7.6
MBLK	TCEP			<10	ng/L				
MRL_CHK	TCEP		5.0	5.82	ng/L	116	(50-150)		
MS_201308290165	TCEP	ND	100	80.8	ng/L	81	(60-140)		
MSD_201308290165	TCEP	ND	100	114	ng/L	114	(60-140)	30	<u>34</u>
LCS1	T CPP		100	126	ng/L	126	(40-160)		
LCS2	T CPP		100	86.4	ng/L	86	(40-160)	30	<u>37</u>
MBLK	T CPP			<100	ng/L				
MRL_CHK	T CPP		5.0	4.80	ng/L	96	(40-160)		
MS_201308290165	T CPP	ND	100	74.0	ng/L	74	(40-160)		
MSD_201308290165	T CPP	ND	100	94.2	ng/L	94	(40-160)	30	24
LCS1	TDCPP		400	544	ng/L	136	(40-160)		
LCS2	TDCPP		400	456	ng/L	114	(40-160)	30	18
MBLK	TDCPP			<100	ng/L				
MRL_CHK	TDCPP		20	19.7	ng/L	99	(40-160)		
MS_201308290165	TDCPP	ND	400	332	ng/L	83	(40-160)		
MSD_201308290165	TDCPP	ND	400	472	ng/L	118	(40-160)	30	<u>35</u>
LCS1	Testosterone		100	108	ng/L	108	(60-140)		
LCS2	Testosterone		100	114	ng/L	114	(60-140)	30	5.4
MBLK	Testosterone			<5	ng/L				
MRL_CHK	Testosterone		5.0	3.87	ng/L	78	(50-150)		
MS_201308290165	Testosterone	ND	100	86.9	ng/L	87	(60-140)		
MSD_201308290165	Testosterone	ND	100	85.3	ng/L	85	(60-140)	30	1.9

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Theobromine		100	108	ng/L	108	(60-140)		
LCS2	Theobromine		100	105	ng/L	105	(60-140)	30	2.8
MBLK	Theobromine			<5	ng/L				
MRL_CHK	Theobromine		5.0	7.24	ng/L	145	(50-150)		
MS_201308290165	Theobromine	ND	100	109	ng/L	106	(60-140)		
MSD_201308290165	Theobromine	ND	100	101	ng/L	98	(60-140)	30	7.6
LCS1	Theophylline		200	201	ng/L	100	(60-140)		
LCS2	Theophylline		200	188	ng/L	94	(60-140)	30	6.7
MBLK	Theophylline			<10	ng/L				
MRL_CHK	Theophylline		10	11.3	ng/L	113	(50-150)		
MS_201308290165	Theophylline	ND	200	192	ng/L	95	(60-140)		
MSD_201308290165	Theophylline	ND	200	201	ng/L	100	(60-140)	30	4.6
LCS1	Trimethoprim		100	101	ng/L	101	(60-140)		
LCS2	Trimethoprim		100	98.4	ng/L	98	(60-140)	30	2.6
MBLK	Trimethoprim			<5	ng/L				
MRL_CHK	Trimethoprim		5.0	5.62	ng/L	112	(50-150)		
MS_201308290165	Trimethoprim	ND	100	92.0	ng/L	92	(60-140)		
MSD_201308290165	Trimethoprim	ND	100	110	ng/L	110	(60-140)	30	18

QC Ref# 726081 - Nitrosamines by GCMS by EPA 521

Analysis Date: 09/10/2013

LCS3	NDMA-D6 (S)			108	%	108	(70-130)		
MBLK	NDMA-D6 (S)			93.8	%	94	(70-130)		
MRL_CHK	NDMA-D6 (S)			89.4	%	89	(70-130)		
MS2_201308270322	NDMA-D6 (S)			103	%	103	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	72.5	ng/L	91	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	2.36	ng/L	118	(50-150)		
MS2_201308270322	N-Nitroso dimethylamine (NDMA)	ND	40	42.5	ng/L	102	(70-130)		
LCS3	N-Nitrosodiethylamine (NDEA)		80	75.6	ng/L	94	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	2.16	ng/L	108	(50-150)		
MS2_201308270322	N-Nitrosodiethylamine (NDEA)		40	41.4	ng/L	103	(70-130)		
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	61.9	ng/L	77	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	1.24	ng/L	62	(50-150)		
MS2_201308270322	N-Nitrosodi-n-propylamin(NDPA)		40	33.2	ng/L	83	(70-130)		
LCS3	N-Nitrosomethylethylamin(NMEA)		80	76.4	ng/L	96	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.81	ng/L	91	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS2_201308270322	N-Nitrosomethylethylamin(NMEA)		40	42.9	ng/L	107	(70-130)		
LCS3	N-Nitrosomorpholine		80	78.2	ng/l	98	(70-130)		
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.95	ng/l	98	(50-150)		
MS2_201308270322	N-Nitrosomorpholine		40	41.0	ng/l	103	(70-130)		
LCS3	N-Nitrosopiperidine (NPIP)		80	75.2	ng/L	94	(70-130)		
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	2.07	ng/L	103	(50-150)		
MS2_201308270322	N-Nitrosopiperidine (NPIP)	36.7	40	40.6	ng/L	102	(70-130)		
QC Ref# 726114 - Nitrosamines by GCMS by EPA 521						Analysis Date: 09/14/2013			
MSD2_201308270322	NDMA-D6 (S)			89.6	%	90	(70-130)		
MSD2_201308270322	N-Nitroso dimethylamine (NDMA)	ND	40	39.6	ng/l	95	(70-130)	30	7.1
LCS3	N-Nitrosodibutylamine (NDBA)		80	61.6	ng/L	77	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.59	ng/L	130	(50-150)		
MS2_201308270322	N-Nitrosodibutylamine (NDBA)	35.8	40	35.8	ng/L	90	(70-130)		
MSD2_201308270322	N-Nitrosodibutylamine (NDBA)	35.8	40	34.8	ng/l	87	(70-130)	30	2.8
MSD2_201308270322	N-Nitrosodiethylamine (NDEA)		40	40.6	ng/L	101	(70-130)	30	2.0
MSD2_201308270322	N-Nitrosodi-n-propylamin(NDPA)		40	37.0	ng/l	93	(70-130)	30	11
MSD2_201308270322	N-Nitrosomethylethylamin(NMEA)		40	39.1	ng/L	98	(70-130)	30	9.3
MSD2_201308270322	N-Nitrosomorpholine		40	42.0	ng/l	105	(70-130)	30	2.4
LCS3	N-Nitrosopyrrolidine (NPYR)		80	61.1	ng/L	76	(70-130)		
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	1.85	ng/L	92	(50-150)		
MS2_201308270322	N-Nitrosopyrrolidine (NPYR)	40.5	40	40.5	ng/L	101	(70-130)		
MSD2_201308270322	N-Nitrosopyrrolidine (NPYR)	40.5	40	39.2	ng/L	98	(70-130)	30	3.3
QC Ref# 726744 - Endocrine Disruptors Negative Mode - SPE by LC-MS-MS						Analysis Date: 09/12/2013			
LCS1	2,4-D		100	83.6	ng/L	84	(60-140)		
LCS2	2,4-D		100	92.0	ng/L	92	(60-140)	30	9.6
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	4.02	ng/L	80	(50-150)		
MS_201308290165	2,4-D	ND	100	86.9	ng/L	87	(60-140)		
MSD_201308290165	2,4-D	ND	100	88.2	ng/L	88	(60-140)	30	1.5
LCS1	4-nonylphenol - semi quantitative		200	129	ng/L	65	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	152	ng/L	76	(60-140)	30	17
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	8.74	ng/L	87	(50-150)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201308290165	4-nonylphenol - semi quantitative	ND	200	205	ng/L	103	(60-140)		
MSD_201308290165	4-nonylphenol - semi quantitative	ND	200	231	ng/L	116	(60-140)	30	12
LCS1	4-tert-octylphenol		100	99.3	ng/L	99	(60-140)		
LCS2	4-tert-octylphenol		100	94.6	ng/L	95	(60-140)	30	4.8
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	4.68	ng/L	94	(50-150)		
MS_201308290165	4-tert-octylphenol	ND	100	76.4	ng/L	76	(60-140)		
MSD_201308290165	4-tert-octylphenol	ND	100	88.5	ng/L	89	(60-140)	30	15
LCS1	Acesulfame-K		400	412	ng/L	103	(60-140)		
LCS2	Acesulfame-K		400	390	ng/L	98	(60-140)	30	5.5
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	17.9	ng/L	90	(50-150)		
MS_201308290165	Acesulfame-K	ND	400	376	ng/L	94	(60-140)		
MSD_201308290165	Acesulfame-K	ND	400	392	ng/L	98	(60-140)	30	4.2
LCS1	Bendroflumethiazide		100	100	ng/L	100	(60-140)		
LCS2	Bendroflumethiazide		100	93.5	ng/L	94	(60-140)	30	6.7
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	5.15	ng/L	103	(50-150)		
MS_201308290165	Bendroflumethiazide	ND	100	71.2	ng/L	71	(60-140)		
MSD_201308290165	Bendroflumethiazide	ND	100	67.7	ng/L	67	(60-140)	30	5.0
LCS1	BPA		100	116	ng/L	116	(60-140)		
LCS2	BPA		100	97.8	ng/L	98	(60-140)	30	17
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	6.88	ng/L	138	(50-150)		
MS_201308290165	BPA	10	100	98.8	ng/L	89	(60-140)		
MSD_201308290165	BPA	10	100	113	ng/L	103	(60-140)	30	13
LCS1	Butalbital		100	90.4	ng/L	91	(60-140)		
LCS2	Butalbital		100	84.3	ng/L	84	(60-140)	30	7.1
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	3.57	ng/L	71	(50-150)		
MS_201308290165	Butalbital	ND	100	82.7	ng/L	83	(60-140)		
MSD_201308290165	Butalbital	ND	100	75.6	ng/L	75	(60-140)	30	9.0
LCS1	Butylparben		100	92.7	ng/L	93	(60-140)		
LCS2	Butylparben		100	96.6	ng/L	97	(60-140)	30	4.1
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	4.31	ng/L	86	(50-150)		
MS_201308290165	Butylparben	ND	100	107	ng/L	106	(60-140)		
MSD_201308290165	Butylparben	ND	100	113	ng/L	113	(60-140)	30	5.5

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Chloramphenicol		100	92.7	ng/L	93	(60-140)		
LCS2	Chloramphenicol		100	88.2	ng/L	88	(60-140)	30	5.0
MBLK	Chloramphenicol			<10	ng/L				
MRL_CHK	Chloramphenicol		5.0	3.49	ng/L	70	(50-150)		
MS_201308290165	Chloramphenicol	ND	100	88.9	ng/L	89	(60-140)		
MSD_201308290165	Chloramphenicol	ND	100	77.1	ng/L	77	(60-140)	30	14
LCS1	Clofibric Acid		100	111	ng/L	111	(60-140)		
LCS2	Clofibric Acid		100	108	ng/L	108	(60-140)	30	2.7
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	5.00	ng/L	100	(50-150)		
MS_201308290165	Clofibric Acid	ND	100	107	ng/L	107	(60-140)		
MSD_201308290165	Clofibric Acid	ND	100	84.2	ng/L	84	(60-140)	30	24
LCS1	Diclofenac		100	93.4	ng/L	94	(60-140)		
LCS2	Diclofenac		100	90.9	ng/L	91	(60-140)	30	2.8
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	5.24	ng/L	105	(50-150)		
MS_201308290165	Diclofenac	ND	100	107	ng/L	106	(60-140)		
MSD_201308290165	Diclofenac	ND	100	96.9	ng/L	97	(60-140)	30	9.9
LCS1	Estradiol		100	113	ng/L	113	(70-130)		
LCS2	Estradiol		100	119	ng/L	119	(70-130)	30	5.2
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	3.93	ng/L	79	(50-150)		
MS_201308290165	Estradiol	ND	100	116	ng/L	117	(60-140)		
MSD_201308290165	Estradiol	ND	100	87.1	ng/L	87	(60-140)	30	29
LCS1	Estrone		100	106	ng/L	106	(60-140)		
LCS2	Estrone		100	116	ng/L	116	(60-140)	30	9.0
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	4.55	ng/L	91	(50-150)		
MS_201308290165	Estrone	ND	100	116	ng/L	113	(60-140)		
MSD_201308290165	Estrone	ND	100	123	ng/L	121	(60-140)	30	5.9
LCS1	Ethinyl Estradiol - 17 alpha		100	102	ng/L	103	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	103	ng/L	103	(60-140)	30	0.0
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	6.10	ng/L	122	(50-150)		
MS_201308290165	Ethinyl Estradiol - 17 alpha	ND	100	117	ng/L	112	(60-140)		
MSD_201308290165	Ethinyl Estradiol - 17 alpha	ND	100	118	ng/L	114	(60-140)	30	0.85
LCS1	Ethylparaben		400	360	ng/L	90	(60-140)		
LCS2	Ethylparaben		400	347	ng/L	87	(60-140)	30	3.7

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	17.7	ng/L	89	(50-150)		
MS_201308290165	Ethylparaben	ND	400	383	ng/L	96	(60-140)		
MSD_201308290165	Ethylparaben	ND	400	387	ng/L	97	(60-140)	30	1.0
LCS1	Gemfibrozil		100	86.8	ng/L	87	(60-140)		
LCS2	Gemfibrozil		100	81.6	ng/L	82	(60-140)	30	6.2
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	4.88	ng/L	98	(50-150)		
MS_201308290165	Gemfibrozil	ND	100	101	ng/L	101	(60-140)		
MSD_201308290165	Gemfibrozil	ND	100	105	ng/L	105	(60-140)	30	3.9
LCS1	Ibuprofen		200	198	ng/L	99	(60-140)		
LCS2	Ibuprofen		200	176	ng/L	88	(60-140)	30	12
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	9.84	ng/L	99	(50-150)		
MS_201308290165	Ibuprofen	ND	200	207	ng/L	103	(60-140)		
MSD_201308290165	Ibuprofen	ND	200	211	ng/L	105	(60-140)	30	1.9
LCS1	Iohexal		200	217	ng/L	109	(60-140)		
LCS2	Iohexal		200	198	ng/L	99	(60-140)	30	9.2
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	8.62	ng/L	86	(50-150)		
MS_201308290165	Iohexal	ND	200	213	ng/L	106	(50-150)		
MSD_201308290165	Iohexal	ND	200	194	ng/L	97	(50-150)	30	9.3
LCS1	Iopromide		100	137	ng/L	<u>137</u>	(70-130)		
LCS2	Iopromide		100	138	ng/L	<u>138</u>	(70-130)	30	0.73
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	6.13	ng/L	123	(50-150)		
MS_201308290165	Iopromide	ND	100	93.5	ng/L	94	(50-150)		
MSD_201308290165	Iopromide	ND	100	95.0	ng/L	95	(50-150)	30	1.6
LCS1	Isobutylparaben		100	103	ng/L	103	(60-140)		
LCS2	Isobutylparaben		100	106	ng/L	106	(60-140)	30	2.9
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	3.63	ng/L	73	(50-150)		
MS_201308290165	Isobutylparaben	ND	100	114	ng/L	112	(60-140)		
MSD_201308290165	Isobutylparaben	ND	100	138	ng/L	135	(60-140)	30	19
LCS1	Methylparaben		400	336	ng/L	84	(60-140)		
LCS2	Methylparaben		400	335	ng/L	84	(60-140)	30	0.30
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	10.1	ng/L	51	(50-150)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201308290165	Methylparaben	ND	400	336	ng/L	83	(60-140)		
MSD_201308290165	Methylparaben	ND	400	407	ng/L	101	(60-140)	30	19
LCS1	Naproxen		200	182	ng/L	91	(60-140)		
LCS2	Naproxen		200	174	ng/L	87	(60-140)	30	4.5
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	8.56	ng/L	86	(50-150)		
MS_201308290165	Naproxen	ND	200	182	ng/L	91	(60-140)		
MSD_201308290165	Naproxen	ND	200	187	ng/L	94	(60-140)	30	2.7
LCS1	Propylparaben		100	94.8	ng/L	95	(60-140)		
LCS2	Propylparaben		100	88.7	ng/L	89	(60-140)	30	6.7
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	5.10	ng/L	102	(50-150)		
MS_201308290165	Propylparaben	ND	100	114	ng/L	115	(60-140)		
MSD_201308290165	Propylparaben	ND	100	115	ng/L	115	(60-140)	30	0.0
LCS1	Sucralose		2000	2190	ng/L	110	(70-130)		
LCS2	Sucralose		2000	2220	ng/L	111	(70-130)	30	1.4
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	106	ng/L	106	(50-150)		
MS_201308290165	Sucralose	ND	2000	1910	ng/L	96	(60-140)		
MSD_201308290165	Sucralose	ND	2000	2720	ng/L	136	(60-140)	30	35
LCS1	Triclosan		200	205	ng/L	103	(70-130)		
LCS2	Triclosan		200	228	ng/L	114	(70-130)	30	11
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	10.7	ng/L	107	(50-150)		
MS_201308290165	Triclosan	ND	200	234	ng/L	115	(60-140)		
MSD_201308290165	Triclosan	ND	200	198	ng/L	97	(60-140)	30	16
LCS1	Warfarin		100	86.3	ng/L	86	(60-140)		
LCS2	Warfarin		100	80.5	ng/L	81	(60-140)	30	7.0
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	4.29	ng/L	86	(50-150)		
MS_201308290165	Warfarin	ND	100	198	ng/L	198	(60-140)		
MSD_201308290165	Warfarin	ND	100	206	ng/L	205	(60-140)	30	4.0

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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AT-1807

Laboratory Report

for

Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attention: Brad Jeppson
Fax: 602-265-1422

Date of Issue

11/06/2013



EUROFINS EATON
ANALYTICAL

DEB: Debbie.L.Frank
Project Manager

Report: 452382
Project: SEDONA-AZ
Group: SEDONA-WRP CEC
Study

* Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted under the individual analysis.

* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,

Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

* Test results relate only to the sample(s) tested.

* This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2012-1
California – NELAP	01114CA	New Hampshire	2959
California – ELAP	2813	New Jersey	CA 008
Los Angeles County Sanitation Districts	10264	New Mexico	Certified
Colorado	Certified	New York	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida	E871024	Oregon	CA 200003-011
Georgia	947	Pennsylvania	68-565
Guam	12-006r	Rhode Island	LAO00326
Hawaii	Certified	South Carolina	87016001
Idaho	Certified	South Dakota	Certified
Illinois	200033	Tennessee	TN02839
Indiana	C-CA-01	Texas	T104704230-13-5
Kansas	E-10268	Utah	CA000062013
Kentucky	90107	Vermont	VT0114
Louisiana	LA130008	Virginia	00210
Maine	CA0006	Washington	C838
Maryland	224	West Virginia	9943 C
Commonwealth of Northern Marianas Is.	MP0004	Wisconsin	998316660
Massachusetts	M-CA006	Wyoming	8TMS-L
Michigan	9906	EPA Region 5	Certified

NELAP/TNI Recognized Accreditation Bodies - in 'BLUE'

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

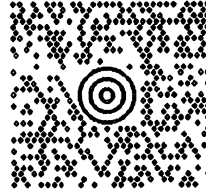
SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/ Combined Residual	SM 4500-CI G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli (MTF/EC+MUG)		x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DCBP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221 C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-S ⁻ D			x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

FROM:
KELLY PARLIN
SEDONA WWTP
19655 STATE ROUTE 89A
SEDONA AZ 86336

25 LBS

1 OF 1



CA 917 9-02



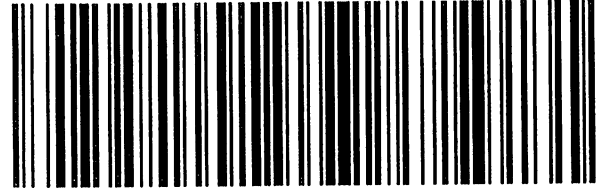
SHIP TO:

DEBBIE FRANK
EUROFINS EATON ANALYTICAL, INC.
SUITE 100
750 ROYAL OAKS DRIVE
MONROVIA CA 91016-6359

UPS NEXT DAY AIR

1

TRACKING #: 1Z 51E 87E 01 6505 9934



REF 1:8256A.10 Jeppson

BILLING: P/P

WS 10.0.31

42.0A 07/2013

Fold here and place in label pouch

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Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Flags Legend:

BF - Target analyte detected in method blank is at or above the method acceptance limits, but below the method reporting limit (MRL) and analyte not present in the sample.

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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Laboratory Hits
 Report: 452382

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 10/08/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201310080434	<u>Class A+ Reclaimed Water (Injectate)</u>				
10/22/2013 13:33	Acesulfame-K		220		ng/L	20
10/17/2013 21:47	Amoxicillin (semi-quantitative)		63		ng/L	20
10/17/2013 21:47	Atenolol		18		ng/L	5
10/17/2013 21:47	Azithromycin		400		ng/L	20
10/17/2013 21:47	Caffeine		85		ng/L	5
10/17/2013 21:47	Carbamazepine		240		ng/L	5
10/17/2013 21:47	Carisoprodol		110		ng/L	5
10/17/2013 21:47	Cotinine		44		ng/L	10
10/17/2013 21:47	DEET		37		ng/L	10
10/17/2013 21:47	Dehydronifedipine		98		ng/L	5
10/22/2013 13:33	Diclofenac		9.3		ng/L	5
10/17/2013 21:47	Dilantin		78		ng/L	20
10/17/2013 21:47	Diltiazem		100		ng/L	5
10/17/2013 21:47	Fluoxetine		16		ng/L	10
10/22/2013 13:33	Iohexal		14		ng/L	10
10/17/2013 21:47	Lidocaine		150		ng/L	5
10/17/2013 21:47	Lopressor		160		ng/L	20
10/17/2013 21:47	Meprobamate		240		ng/L	5
10/17/2013 21:47	Primidone		85		ng/L	5
10/22/2013 13:33	Sucralose		33000		ng/L	1000
10/17/2013 21:47	Sulfamethoxazole		900		ng/L	5
10/17/2013 21:47	TCEP		130		ng/L	10
10/17/2013 21:47	T CPP		270		ng/L	100
10/17/2013 21:47	TDCPP		140		ng/L	100

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Laboratory Data
 Report: 452382

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 10/08/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
Class A+ Reclaimed Water (Injectate) (201310080434)					Sampled on 10/07/2013 1255			
EPA 521 - Nitrosamines by GCMS								
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND (BF)	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
10/14/2013	10/17/2013	21:41 732422	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
10/14/2013	10/16/2013	02:17 731688	(EPA 521)	NDMA-D6	92	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	10/17/2013	21:47 732504	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Albuterol	ND (R7)	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Amoxicillin (semi-quantitative)	63	ng/L	20	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Atenolol	18	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Azithromycin	400	ng/L	20	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Caffeine	85	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Carbamazepine	240	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Carisoprodol	110	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Cotinine	44	ng/L	10	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	DACT	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	DEA	ND	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	DEET	37	ng/L	10	1
	10/17/2013	21:47 732504	(LC-MS-MS)	Dehydronifedipine	98 (R7)	ng/L	5	1
	10/17/2013	21:47 732504	(LC-MS-MS)	DIA	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 452382

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 10/08/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	10/17/2013	21:47	732504	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Dilantin	78	ng/L	20	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Diltiazem	100 (R7)	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Fluoxetine	16	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Lidocaine	150	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Lopressor	160	ng/L	20	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Meprobamate	240	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Norethisterone	ND (R7)	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Primidone	85	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfamethoxazole	900	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 452382

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 10/08/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	10/17/2013	21:47	732504	(LC-MS-MS)	TCEP	130	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	T CPP	270	ng/L	100	1
	10/17/2013	21:47	732504	(LC-MS-MS)	TDCPP	140	ng/L	100	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	10/17/2013	21:47	732504	(LC-MS-MS)	Trimethoprim	ND (R7)	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE									
	10/22/2013	13:33	730368	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	10/22/2013	13:33	730368	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Acesulfame-K	220	ng/L	20	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	BPA	ND	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Diclofenac	9.3	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	lohexal	14	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Sucralose	33000	ng/L	1000	10
	10/22/2013	13:33	730368	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	10/22/2013	13:33	730368	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

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QC Ref # 730368 - Endocrine Disruptors Negative Mode - SPE

201310080434 Class A+ Reclaimed Water (Injectate)

Analysis Date: 10/22/2013

Analyzed by: ARH

QC Ref # 731688 - Nitrosamines by GCMS

201310080434 Class A+ Reclaimed Water (Injectate)

Analysis Date: 10/16/2013

Analyzed by: KDT

QC Ref # 732422 - Nitrosamines by GCMS

201310080434 Class A+ Reclaimed Water (Injectate)

Analysis Date: 10/17/2013

Analyzed by: CRW

QC Ref # 732504 - Endocrine Disruptors Positive Mode - SPE

201310080434 Class A+ Reclaimed Water (Injectate)

Analysis Date: 10/17/2013

Analyzed by: ARH

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 730368 - Endocrine Disruptors Negative Mode - SPE by LC-MS-MS						Analysis Date: 10/21/2013			
LCS1	2,4-D		100	78.4	ng/L	78	(60-140)		
LCS2	2,4-D		100	75.8	ng/L	76	(60-140)	40	3.4
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	2.64	ng/L	53	(50-150)		
MS_201309180490	2,4-D	ND	100	61.3	ng/L	60	(60-140)		
MSD_201309180490	2,4-D	ND	100	61.5	ng/L	60	(60-140)	40	0.33
LCS1	4-nonylphenol - semi quantitative		200	140	ng/L	70	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	137	ng/L	69	(60-140)	40	2.2
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	9.69	ng/L	97	(50-150)		
MS_201309180490	4-nonylphenol - semi quantitative	ND	200	201	ng/L	101	(60-140)		
MSD_201309180490	4-nonylphenol - semi quantitative	ND	200	200	ng/L	100	(60-140)	40	0.0
LCS1	4-tert-octylphenol		100	99.0	ng/L	99	(60-140)		
LCS2	4-tert-octylphenol		100	108	ng/L	109	(60-140)	40	9.6
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	5.07	ng/L	101	(50-150)		
MS_201309180490	4-tert-octylphenol	ND	100	87.4	ng/L	85	(60-140)		
MSD_201309180490	4-tert-octylphenol	ND	100	86.4	ng/L	84	(60-140)	40	1.1
LCS1	Acesulfame-K		400	316	ng/L	79	(60-140)		
LCS2	Acesulfame-K		400	327	ng/L	82	(60-140)	40	3.4
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	12.7	ng/L	64	(50-150)		
MS_201309180490	Acesulfame-K	150	400	378	ng/L	<u>57</u>	(60-140)		
MSD_201309180490	Acesulfame-K	150	400	392	ng/L	60	(60-140)	40	3.6
LCS1	Bendroflumethiazide		100	104	ng/L	104	(60-140)		
LCS2	Bendroflumethiazide		100	83.6	ng/L	84	(60-140)	40	22
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	3.55	ng/L	71	(50-150)		
MS_201309180490	Bendroflumethiazide	ND	100	138	ng/L	138	(60-140)		
MSD_201309180490	Bendroflumethiazide	ND	100	128	ng/L	127	(60-140)	40	7.5
LCS1	BPA		100	70.9	ng/L	71	(60-140)		
LCS2	BPA		100	83.6	ng/L	84	(60-140)	40	16
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	4.30	ng/L	86	(50-150)		
MS_201309180490	BPA	15	100	137	ng/L	123	(60-140)		
MSD_201309180490	BPA	15	100	75.9	ng/L	61	(60-140)	40	<u>57</u>

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Butalbital		100	85.4	ng/L	86	(60-140)		
LCS2	Butalbital		100	76.2	ng/L	76	(60-140)	40	12
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	2.95	ng/L	59	(50-150)		
MS_201309180490	Butalbital	ND	100	120	ng/L	120	(60-140)		
MSD_201309180490	Butalbital	ND	100	91.1	ng/L	91	(60-140)	40	27
LCS1	Butylparben		100	107	ng/L	107	(60-140)		
LCS2	Butylparben		100	109	ng/L	109	(60-140)	40	1.9
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	5.57	ng/L	111	(50-150)		
MS_201309180490	Butylparben	ND	100	137	ng/L	135	(60-140)		
MSD_201309180490	Butylparben	ND	100	113	ng/L	112	(60-140)	40	19
LCS1	Chloramphenicol		100	110	ng/L	110	(60-140)		
LCS2	Chloramphenicol		100	106	ng/L	106	(60-140)	40	3.7
MBLK	Chloramphenicol			<10	ng/L				
MRL_CHK	Chloramphenicol		5.0	4.27	ng/L	85	(50-150)		
MS_201309180490	Chloramphenicol	ND	100	103	ng/L	103	(60-140)		
MSD_201309180490	Chloramphenicol	ND	100	84.1	ng/L	84	(60-140)	40	20
LCS1	Clofibric Acid		100	114	ng/L	114	(60-140)		
LCS2	Clofibric Acid		100	97.1	ng/L	97	(60-140)	40	16
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	3.75	ng/L	75	(50-150)		
MS_201309180490	Clofibric Acid	ND	100	64.0	ng/L	64	(60-140)		
MSD_201309180490	Clofibric Acid	ND	100	62.7	ng/L	63	(60-140)	40	2.0
LCS1	Diclofenac		100	102	ng/L	103	(60-140)		
LCS2	Diclofenac		100	119	ng/L	119	(60-140)	40	14
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	3.46	ng/L	69	(50-150)		
MS_201309180490	Diclofenac	ND	100	82.1	ng/L	82	(60-140)		
MSD_201309180490	Diclofenac	ND	100	68.9	ng/L	69	(60-140)	40	18
LCS1	Estradiol		100	101	ng/L	101	(70-130)		
LCS2	Estradiol		100	85.7	ng/L	86	(60-140)	40	16
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	3.49	ng/L	70	(50-150)		
MS_201309180490	Estradiol	ND	100	93.0	ng/L	91	(60-140)		
MSD_201309180490	Estradiol	ND	100	91.6	ng/L	90	(60-140)	40	1.5
LCS1	Estrone		100	108	ng/L	108	(60-140)		
LCS2	Estrone		100	103	ng/L	103	(60-140)	40	4.7

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	4.58	ng/L	92	(50-150)		
MS_201309180490	Estrone	ND	100	129	ng/L	129	(60-140)		
MSD_201309180490	Estrone	ND	100	132	ng/L	132	(60-140)	40	2.3
LCS1	Ethinyl Estradiol - 17 alpha		100	116	ng/L	116	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	115	ng/L	115	(60-140)	40	0.87
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	4.64	ng/L	93	(50-150)		
MS_201309180490	Ethinyl Estradiol - 17 alpha	ND	100	61.2	ng/L	61	(60-140)		
MSD_201309180490	Ethinyl Estradiol - 17 alpha	ND	100	64.2	ng/L	64	(60-140)	40	4.8
LCS1	Ethylparaben		400	434	ng/L	109	(60-140)		
LCS2	Ethylparaben		400	405	ng/L	101	(60-140)	40	6.9
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	20.4	ng/L	102	(50-150)		
MS_201309180490	Ethylparaben	ND	400	1050	ng/L	260	(60-140)		
MSD_201309180490	Ethylparaben	ND	400	427	ng/L	105	(60-140)	40	84
LCS1	Gemfibrozil		100	99.7	ng/L	100	(60-140)		
LCS2	Gemfibrozil		100	91.8	ng/L	92	(60-140)	40	8.3
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	3.49	ng/L	70	(50-150)		
MS_201309180490	Gemfibrozil	ND	100	104	ng/L	103	(60-140)		
MSD_201309180490	Gemfibrozil	ND	100	89.8	ng/L	89	(60-140)	40	15
LCS1	Ibuprofen		200	152	ng/L	76	(60-140)		
LCS2	Ibuprofen		200	152	ng/L	76	(60-140)	40	0.0
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	5.61	ng/L	56	(50-150)		
MS_201309180490	Ibuprofen	ND	200	148	ng/L	74	(60-140)		
MSD_201309180490	Ibuprofen	ND	200	132	ng/L	66	(60-140)	40	11
LCS1	Iohexal		200	161	ng/L	80	(60-140)		
LCS2	Iohexal		200	161	ng/L	80	(60-140)	40	0.0
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	6.65	ng/L	67	(50-150)		
MS_201309180490	Iohexal	ND	200	232	ng/L	114	(50-150)		
MSD_201309180490	Iohexal	ND	200	199	ng/L	98	(50-150)	50	15
LCS1	Iopromide		100	114	ng/L	114	(70-130)		
LCS2	Iopromide		100	77.3	ng/L	77	(60-140)	40	38
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	4.47	ng/L	90	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201309180490	Iopromide	ND	100	81.2	ng/L	81	(50-150)		
MSD_201309180490	Iopromide	ND	100	90.6	ng/L	90	(50-150)	50	11
LCS1	Isobutylparaben		100	71.2	ng/L	71	(60-140)		
LCS2	Isobutylparaben		100	89.6	ng/L	90	(60-140)	40	23
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	3.39	ng/L	68	(50-150)		
MS_201309180490	Isobutylparaben	ND	100	118	ng/L	118	(60-140)		
MSD_201309180490	Isobutylparaben	ND	100	79.1	ng/L	79	(60-140)	40	40
LCS1	Methylparaben		400	286	ng/L	72	(60-140)		
LCS2	Methylparaben		400	332	ng/L	83	(60-140)	40	15
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	10.3	ng/L	51	(50-150)		
MS_201309180490	Methylparaben	ND	400	368	ng/L	92	(60-140)		
MSD_201309180490	Methylparaben	ND	400	316	ng/L	79	(60-140)	40	15
LCS1	Naproxen		200	220	ng/L	110	(60-140)		
LCS2	Naproxen		200	176	ng/L	88	(60-140)	40	23
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	7.84	ng/L	78	(50-150)		
MS_201309180490	Naproxen	ND	200	193	ng/L	96	(60-140)		
MSD_201309180490	Naproxen	ND	200	148	ng/L	74	(60-140)	40	26
LCS1	Propylparaben		100	108	ng/L	108	(60-140)		
LCS2	Propylparaben		100	115	ng/L	115	(60-140)	40	6.3
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	4.69	ng/L	94	(50-150)		
MS_201309180490	Propylparaben	ND	100	64.1	ng/L	64	(60-140)		
MSD_201309180490	Propylparaben	ND	100	81.9	ng/L	82	(60-140)	40	24
LCS1	Sucralose		2000	2120	ng/L	106	(70-130)		
LCS2	Sucralose		2000	1780	ng/L	89	(60-140)	40	17
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	55.0	ng/L	55	(50-150)		
MS_201309180490	Sucralose	180	2000	2240	ng/L	103	(60-140)		
MSD_201309180490	Sucralose	180	2000	2180	ng/L	100	(60-140)	40	2.7
LCS1	Triclosan		200	224	ng/L	112	(70-130)		
LCS2	Triclosan		200	261	ng/L	131	(60-140)	40	15
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	10.7	ng/L	107	(50-150)		
MS_201309180490	Triclosan	ND	200	227	ng/L	114	(60-140)		
MSD_201309180490	Triclosan	ND	200	190	ng/L	95	(60-140)	40	18

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Warfarin		100	129	ng/L	129	(60-140)		
LCS2	Warfarin		100	134	ng/L	134	(60-140)	40	3.8
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	5.68	ng/L	114	(50-150)		
MS_201309180490	Warfarin	ND	100	60.2	ng/L	60	(60-140)		
MSD_201309180490	Warfarin	ND	100	70.7	ng/L	71	(60-140)	40	16

QC Ref# 731688 - Nitrosamines by GCMS by EPA 521

Analysis Date: 10/15/2013

LCS3	NDMA-D6 (S)			88.6	%	89	(70-130)		
MBLK	NDMA-D6 (S)			80.3	%	80	(70-130)		
MRL_CHK	NDMA-D6 (S)			77.0	%	77	(70-130)		
MS2_201310070221	NDMA-D6 (S)			87.8	%	88	(70-130)		
MSD2_201310070221	NDMA-D6 (S)			90.8	%	91	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	67.9	ng/L	85	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	1.95	ng/L	98	(50-150)		
MS2_201310070221	N-Nitroso dimethylamine (NDMA)	ND	40	37.4	ng/L	92	(70-130)		
MSD2_201310070221	N-Nitroso dimethylamine (NDMA)	ND	40	39.4	ng/l	97	(70-130)	30	5.2
LCS3	N-Nitrosodibutylamine (NDBA)		80	65.9	ng/L	82	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.86	ng/L	143	(50-150)		
MS2_201310070221	N-Nitrosodibutylamine (NDBA)		40	31.2	ng/L	78	(70-130)		
MSD2_201310070221	N-Nitrosodibutylamine (NDBA)		40	34.3	ng/l	86	(70-130)	30	9.5
LCS3	N-Nitrosodiethylamine (NDEA)		80	72.7	ng/L	91	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	1.96	ng/L	98	(50-150)		
MS2_201310070221	N-Nitrosodiethylamine (NDEA)		40	39.2	ng/L	98	(70-130)		
MSD2_201310070221	N-Nitrosodiethylamine (NDEA)		40	37.2	ng/L	93	(70-130)	30	5.2
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	63.6	ng/L	80	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	2.08	ng/L	104	(50-150)		
MS2_201310070221	N-Nitrosodi-n-propylamin(NDPA)		40	32.5	ng/L	81	(70-130)		
MSD2_201310070221	N-Nitrosodi-n-propylamin(NDPA)		40	32.7	ng/l	82	(70-130)	30	0.61
LCS3	N-Nitrosomethylethylamin(NMEA)		80	74.1	ng/L	93	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.85	ng/L	93	(50-150)		
MS2_201310070221	N-Nitrosomethylethylamin(NMEA)		40	38.2	ng/L	96	(70-130)		
MSD2_201310070221	N-Nitrosomethylethylamin(NMEA)		40	39.4	ng/L	98	(70-130)	30	3.1
LCS3	N-Nitrosomorpholine		80	69.9	ng/l	87	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.73	ng/l	86	(50-150)		
MS2_201310070221	N-Nitrosomorpholine		40	35.8	ng/l	90	(70-130)		
MSD2_201310070221	N-Nitrosomorpholine		40	35.5	ng/l	89	(70-130)	30	0.84
LCS3	N-Nitrosopyrrolidine (NPYR)		80	71.8	ng/L	90	(70-130)		
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	1.67	ng/L	83	(50-150)		
MS2_201310070221	N-Nitrosopyrrolidine (NPYR)		40	36.1	ng/L	90	(70-130)		
MSD2_201310070221	N-Nitrosopyrrolidine (NPYR)		40	40.2	ng/L	101	(70-130)	30	11
QC Ref# 732422 - Nitrosamines by GCMS by EPA 521						Analysis Date: 10/17/2013			
LCS3	N-Nitrosopiperidine (NPIP)		80	67.2	ng/L	84	(70-130)		
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	1.79	ng/L	90	(50-150)		
MS2_201310070221	N-Nitrosopiperidine (NPIP)	32.3	40	32.3	ng/L	81	(70-130)		
MS2_201310070221	N-Nitrosopiperidine (NPIP)	37.1	40	32.3	ng/L	81	(70-130)		
MSD2_201310070221	N-Nitrosopiperidine (NPIP)	32.3	40	37.1	ng/l	93	(70-130)	30	14
MSD2_201310070221	N-Nitrosopiperidine (NPIP)	37.1	40	37.1	ng/l	93	(70-130)	30	14
QC Ref# 732504 - Endocrine Disruptors Positive Mode - SPE by LC-MS-MS						Analysis Date: 10/17/2013			
LCS1	1,7-Dimethylxanthine		100	94.9	ng/L	95	(60-140)		
LCS2	1,7-Dimethylxanthine		100	109	ng/L	109	(60-140)	30	14
MBLK	1,7-Dimethylxanthine			<5	ng/L				
MRL_CHK	1,7-Dimethylxanthine		5.0	6.12	ng/L	122	(50-150)		
MS_201309180490	1,7-Dimethylxanthine	ND	100	67.9	ng/L	68	(60-140)		
MSD_201309180490	1,7-Dimethylxanthine	ND	100	63.1	ng/L	63	(60-140)	40	7.3
LCS1	Acetaminophen		100	81.7	ng/L	82	(60-140)		
LCS2	Acetaminophen		100	101	ng/L	101	(60-140)	30	21
MBLK	Acetaminophen			<5	ng/L				
MRL_CHK	Acetaminophen		5.0	4.14	ng/L	83	(50-150)		
MS_201309180490	Acetaminophen	ND	100	98.1	ng/L	98	(60-140)		
MSD_201309180490	Acetaminophen	ND	100	101	ng/L	101	(60-140)	40	2.9
LCS1	Albuterol		100	72.9	ng/L	73	(60-140)		
LCS2	Albuterol		100	103	ng/L	103	(60-140)	30	34
MBLK	Albuterol			<5	ng/L				
MRL_CHK	Albuterol		5.0	6.61	ng/L	132	(50-150)		
MS_201309180490	Albuterol	ND	100	121	ng/L	119	(60-140)		
MSD_201309180490	Albuterol	ND	100	111	ng/L	110	(60-140)	40	8.6
LCS1	Amoxicillin (semi-quantitative)		400	444	ng/L	111	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Amoxicillin (semi-quantitative)		400	424	ng/L	106	(60-140)	30	4.6
MBLK	Amoxicillin (semi-quantitative)			<20	ng/L				
MRL_CHK	Amoxicillin (semi-quantitative)		20	21.4	ng/L	107	(50-150)		
MS_201309180490	Amoxicillin (semi-quantitative)	ND	400	419	ng/L	105	(60-140)		
MSD_201309180490	Amoxicillin (semi-quantitative)	ND	400	440	ng/L	110	(60-140)	40	4.9
LCS1	Androstenedione		100	87.6	ng/L	88	(60-140)		
LCS2	Androstenedione		100	97.5	ng/L	98	(60-140)	30	11
MBLK	Androstenedione			<5	ng/L				
MRL_CHK	Androstenedione		5.0	3.82	ng/L	77	(50-150)		
MS_201309180490	Androstenedione	ND	100	87.8	ng/L	88	(60-140)		
MSD_201309180490	Androstenedione	ND	100	90.6	ng/L	91	(60-140)	40	3.1
LCS1	Atenolol		100	112	ng/L	112	(60-140)		
LCS2	Atenolol		100	99.7	ng/L	100	(60-140)	30	12
MBLK	Atenolol			<5	ng/L				
MRL_CHK	Atenolol		5.0	6.09	ng/L	122	(50-150)		
MS_201309180490	Atenolol	ND	100	91.6	ng/L	91	(60-140)		
MSD_201309180490	Atenolol	ND	100	89.3	ng/L	89	(60-140)	40	2.5
LCS1	Atrazine		100	99.1	ng/L	99	(60-140)		
LCS2	Atrazine		100	109	ng/L	109	(60-140)	30	9.5
MBLK	Atrazine			<5	ng/L				
MRL_CHK	Atrazine		5.0	4.82	ng/L	96	(50-150)		
MS_201309180490	Atrazine	ND	100	96.7	ng/L	96	(60-140)		
MSD_201309180490	Atrazine	ND	100	102	ng/L	101	(60-140)	40	5.3
LCS1	Azithromycin		400	245	ng/L	61	(60-140)		
LCS2	Azithromycin		400	295	ng/L	74	(60-140)	30	19
MBLK	Azithromycin			<20	ng/L				
MRL_CHK	Azithromycin		20	16.4	ng/L	82	(50-150)		
MS_201309180490	Azithromycin	ND	400	1510	ng/L	<u>377</u>	(60-140)		
MSD_201309180490	Azithromycin	ND	400	1220	ng/L	<u>304</u>	(60-140)	40	21
LCS1	Bezafibrate		100	94.4	ng/L	94	(60-140)		
LCS2	Bezafibrate		100	107	ng/L	107	(60-140)	30	13
MBLK	Bezafibrate			<5	ng/L				
MRL_CHK	Bezafibrate		5.0	4.07	ng/L	81	(50-150)		
MS_201309180490	Bezafibrate	ND	100	162	ng/L	<u>162</u>	(60-140)		
MSD_201309180490	Bezafibrate	ND	100	166	ng/L	<u>166</u>	(60-140)	40	3.0
LCS1	Bromacil		100	97.4	ng/L	97	(60-140)		
LCS2	Bromacil		100	103	ng/L	103	(60-140)	30	5.6
MBLK	Bromacil			<5	ng/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Bromacil		5.0	4.17	ng/L	83	(50-150)		
MS_201309180490	Bromacil	ND	100	86.3	ng/L	85	(60-140)		
MSD_201309180490	Bromacil	ND	100	87.2	ng/L	86	(60-140)	40	1.0
LCS1	Caffeine		100	85.1	ng/L	85	(70-130)		
LCS2	Caffeine		100	99.1	ng/L	99	(70-130)	30	15
MBLK	Caffeine			<5	ng/L				
MRL_CHK	Caffeine		5.0	3.39	ng/L	68	(50-150)		
MS_201309180490	Caffeine	97	100	196	ng/L	99	(60-140)		
MSD_201309180490	Caffeine	97	100	212	ng/L	115	(60-140)	40	7.8
LCS1	Carbadox		100	102	ng/L	102	(60-140)		
LCS2	Carbadox		100	86.6	ng/L	87	(60-140)	30	16
MBLK	Carbadox			<5	ng/L				
MRL_CHK	Carbadox		5.0	3.63	ng/L	73	(50-150)		
MS_201309180490	Carbadox	ND	100	22.0	ng/L	<u>20</u>	(60-140)		
MSD_201309180490	Carbadox	ND	100	20.7	ng/L	<u>19</u>	(60-140)	40	6.1
LCS1	Carbamazepine		100	119	ng/L	119	(60-140)		
LCS2	Carbamazepine		100	130	ng/L	130	(60-140)	30	8.8
MBLK	Carbamazepine			<5	ng/L				
MRL_CHK	Carbamazepine		5.0	5.11	ng/L	102	(50-150)		
MS_201309180490	Carbamazepine	ND	100	113	ng/L	113	(60-140)		
MSD_201309180490	Carbamazepine	ND	100	107	ng/L	107	(60-140)	40	5.5
LCS1	Carisoprodol		100	99.8	ng/L	100	(60-140)		
LCS2	Carisoprodol		100	95.3	ng/L	95	(60-140)	30	4.6
MBLK	Carisoprodol			<5	ng/L				
MRL_CHK	Carisoprodol		5.0	5.79	ng/L	116	(50-150)		
MS_201309180490	Carisoprodol	ND	100	125	ng/L	123	(60-140)		
MSD_201309180490	Carisoprodol	ND	100	140	ng/L	138	(60-140)	40	11
LCS1	Chloridazon		100	103	ng/L	103	(60-140)		
LCS2	Chloridazon		100	108	ng/L	108	(60-140)	30	4.7
MBLK	Chloridazon			<5	ng/L				
MRL_CHK	Chloridazon		5.0	5.47	ng/L	109	(50-150)		
MS_201309180490	Chloridazon	ND	100	23.1	ng/L	<u>23</u>	(60-140)		
MSD_201309180490	Chloridazon	ND	100	22.5	ng/L	<u>22</u>	(60-140)	40	2.6
LCS1	Chlorotoluron		100	119	ng/L	119	(60-140)		
LCS2	Chlorotoluron		100	125	ng/L	125	(60-140)	30	4.9
MBLK	Chlorotoluron			<5	ng/L				
MRL_CHK	Chlorotoluron		5.0	4.78	ng/L	96	(50-150)		
MS_201309180490	Chlorotoluron	ND	100	97.6	ng/L	97	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201309180490	Chlorotoluron	ND	100	103	ng/L	103	(60-140)	40	5.4
LCS1	Cimetidine		100	86.0	ng/L	86	(60-140)		
LCS2	Cimetidine		100	105	ng/L	105	(60-140)	30	20
MBLK	Cimetidine			<5	ng/L				
MRL_CHK	Cimetidine		5.0	4.39	ng/L	88	(50-150)		
MS_201309180490	Cimetidine	ND	100	64.0	ng/L	62	(60-140)		
MSD_201309180490	Cimetidine	ND	100	60.5	ng/L	<u>58</u>	(60-140)	40	5.6
LCS1	Cotinine		200	227	ng/L	114	(60-140)		
LCS2	Cotinine		200	233	ng/L	117	(60-140)	30	2.6
MBLK	Cotinine			<10	ng/L				
MRL_CHK	Cotinine		10	11.8	ng/L	118	(50-150)		
MS_201309180490	Cotinine	57	200	338	ng/L	140	(60-140)		
MSD_201309180490	Cotinine	57	200	334	ng/L	139	(60-140)	40	0.89
LCS1	Cyanazine		100	91.1	ng/L	91	(60-140)		
LCS2	Cyanazine		100	112	ng/L	112	(60-140)	30	21
MBLK	Cyanazine			<5	ng/L				
MRL_CHK	Cyanazine		5.0	5.37	ng/L	107	(50-150)		
MS_201309180490	Cyanazine	ND	100	90.8	ng/L	91	(60-140)		
MSD_201309180490	Cyanazine	ND	100	90.3	ng/L	90	(60-140)	40	0.55
LCS1	DACT		100	96.1	ng/L	96	(60-140)		
LCS2	DACT		100	106	ng/L	106	(60-140)	30	9.8
MBLK	DACT			<5	ng/L				
MRL_CHK	DACT		5.0	5.47	ng/L	109	(50-150)		
MS_201309180490	DACT	ND	100	63.2	ng/L	63	(60-140)		
MSD_201309180490	DACT	ND	100	66.6	ng/L	67	(60-140)	40	5.2
LCS1	DEA		100	104	ng/L	104	(60-140)		
LCS2	DEA		100	108	ng/L	108	(60-140)	30	3.8
MBLK	DEA			<5	ng/L				
MRL_CHK	DEA		5.0	5.63	ng/L	113	(50-150)		
MS_201309180490	DEA	ND	100	101	ng/L	98	(60-140)		
MSD_201309180490	DEA	ND	100	103	ng/L	100	(60-140)	40	2.0
LCS1	DEET		40	43.4	ng/L	108	(70-130)		
LCS2	DEET		40	54.3	ng/L	<u>136</u>	(70-130)	30	22
MBLK	DEET			<6	ng/L				
MRL_CHK	DEET		2.0	2.14	ng/L	107	(50-150)		
MS_201309180490	DEET	26	40	63.2	ng/L	92	(60-140)		
MSD_201309180490	DEET	26	40	66.0	ng/L	99	(60-140)	40	4.5
LCS1	Dehydronifedipine		100	85.3	ng/L	85	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Dehydronifedipine		100	118	ng/L	118	(60-140)	30	<u>32</u>
MBLK	Dehydronifedipine			<5	ng/L				
MRL_CHK	Dehydronifedipine		5.0	4.92	ng/L	98	(50-150)		
MS_201309180490	Dehydronifedipine	ND	100	73.2	ng/L	73	(60-140)		
MSD_201309180490	Dehydronifedipine	ND	100	70.4	ng/L	70	(60-140)	40	4.0
LCS1	DIA		100	86.6	ng/L	87	(60-140)		
LCS2	DIA		100	85.5	ng/L	86	(60-140)	30	1.3
MBLK	DIA			<5	ng/L				
MRL_CHK	DIA		5.0	4.41	ng/L	88	(50-150)		
MS_201309180490	DIA	ND	100	88.5	ng/L	86	(60-140)		
MSD_201309180490	DIA	ND	100	94.1	ng/L	92	(60-140)	40	6.1
LCS1	Diazepam		100	86.6	ng/L	87	(60-140)		
LCS2	Diazepam		100	109	ng/L	109	(60-140)	30	23
MBLK	Diazepam			<5	ng/L				
MRL_CHK	Diazepam		5.0	4.68	ng/L	94	(50-150)		
MS_201309180490	Diazepam	ND	100	99.0	ng/L	99	(60-140)		
MSD_201309180490	Diazepam	ND	100	97.0	ng/L	97	(60-140)	40	2.0
LCS1	Dilantin		400	366	ng/L	92	(60-140)		
LCS2	Dilantin		400	413	ng/L	103	(60-140)	30	12
MBLK	Dilantin			<20	ng/L				
MRL_CHK	Dilantin		20	18.6	ng/L	93	(50-150)		
MS_201309180490	Dilantin	ND	400	357	ng/L	89	(60-140)		
MSD_201309180490	Dilantin	ND	400	358	ng/L	89	(60-140)	40	0.28
LCS1	Diltiazem		100	82.1	ng/L	82	(60-140)		
LCS2	Diltiazem		100	115	ng/L	115	(60-140)		33
MBLK	Diltiazem			<5	ng/L				
MRL_CHK	Diltiazem		5.0	4.56	ng/L	91	(50-150)		
MS_201309180490	Diltiazem	ND	100	176	ng/L	<u>175</u>	(60-140)		
MSD_201309180490	Diltiazem	ND	100	163	ng/L	<u>162</u>	(60-140)	40	7.7
LCS1	Diuron		100	107	ng/L	107	(60-140)		
LCS2	Diuron		100	131	ng/L	131	(60-140)	30	20
MBLK	Diuron			<5	ng/L				
MRL_CHK	Diuron		5.0	4.94	ng/L	99	(50-150)		
MS_201309180490	Diuron	ND	100	143	ng/L	<u>143</u>	(60-140)		
MSD_201309180490	Diuron	ND	100	140	ng/L	140	(60-140)	40	2.1
LCS1	Erythromycin		200	172	ng/L	86	(60-140)		
LCS2	Erythromycin		200	196	ng/L	98	(60-140)	30	13
MBLK	Erythromycin			<10	ng/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Erythromycin		10	8.25	ng/L	83	(50-150)		
MS_201309180490	Erythromycin	ND	200	371	ng/L	185	(60-140)		
MSD_201309180490	Erythromycin	ND	200	372	ng/L	186	(60-140)	40	0.27
LCS1	Flumequine		200	200	ng/L	100	(60-140)		
LCS2	Flumequine		200	206	ng/L	103	(60-140)	30	3.0
MBLK	Flumequine			<10	ng/L				
MRL_CHK	Flumequine		10	12.2	ng/L	122	(50-150)		
MS_201309180490	Flumequine	ND	200	320	ng/L	160	(60-140)		
MSD_201309180490	Flumequine	ND	200	330	ng/L	165	(60-140)	40	3.1
LCS1	Fluoxetine		100	115	ng/L	115	(60-140)		
LCS2	Fluoxetine		100	114	ng/L	114	(60-140)	30	0.87
MBLK	Fluoxetine			<10	ng/L				
MRL_CHK	Fluoxetine		5.0	5.00	ng/L	100	(50-150)		
MS_201309180490	Fluoxetine	ND	100	240	ng/L	230	(60-140)		
MSD_201309180490	Fluoxetine	ND	100	225	ng/L	215	(60-140)	40	6.5
LCS1	Isoproturon		400	413	ng/L	103	(60-140)		
LCS2	Isoproturon		400	395	ng/L	99	(60-140)	30	4.5
MBLK	Isoproturon			<20	ng/L				
MRL_CHK	Isoproturon		20	20.3	ng/L	101	(50-150)		
MS_201309180490	Isoproturon	ND	400	385	ng/L	96	(60-140)		
MSD_201309180490	Isoproturon	ND	400	377	ng/L	94	(60-140)	40	2.1
LCS1	Ketoprofen		100	92.5	ng/L	93	(60-140)		
LCS2	Ketoprofen		100	102	ng/L	102	(60-140)	30	9.8
MBLK	Ketoprofen			<5	ng/L				
MRL_CHK	Ketoprofen		5.0	5.16	ng/L	103	(50-150)		
MS_201309180490	Ketoprofen	ND	100	80.4	ng/L	77	(60-140)		
MSD_201309180490	Ketoprofen	ND	100	85.2	ng/L	82	(60-140)	40	5.7
LCS1	Ketorolac		100	97.6	ng/L	98	(60-140)		
LCS2	Ketorolac		100	113	ng/L	113	(60-140)	30	15
MBLK	Ketorolac			<5	ng/L				
MRL_CHK	Ketorolac		5.0	5.24	ng/L	105	(50-150)		
MS_201309180490	Ketorolac	ND	100	69.8	ng/L	70	(60-140)		
MSD_201309180490	Ketorolac	ND	100	67.3	ng/L	67	(60-140)	40	3.6
LCS1	Lidocaine		100	89.7	ng/L	90	(60-140)		
LCS2	Lidocaine		100	98.1	ng/L	98	(60-140)	30	8.9
MBLK	Lidocaine			<5	ng/L				
MRL_CHK	Lidocaine		5.0	4.75	ng/L	95	(50-150)		
MS_201309180490	Lidocaine	ND	100	85.1	ng/L	82	(60-140)		

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201309180490	Lidocaine	ND	100	86.2	ng/L	83	(60-140)	40	1.3
LCS1	Lincomycin		200	184	ng/L	92	(60-140)		
LCS2	Lincomycin		200	240	ng/L	120	(60-140)	30	26
MBLK	Lincomycin			<10	ng/L				
MRL_CHK	Lincomycin		10	10.7	ng/L	107	(50-150)		
MS_201309180490	Lincomycin	ND	200	356	ng/L	<u>177</u>	(60-140)		
MSD_201309180490	Lincomycin	ND	200	382	ng/L	<u>189</u>	(60-140)	40	6.8
LCS1	Linuron		100	92.6	ng/L	93	(60-140)		
LCS2	Linuron		100	105	ng/L	105	(60-140)	30	13
MBLK	Linuron			<5	ng/L				
MRL_CHK	Linuron		5.0	4.74	ng/L	95	(50-150)		
MS_201309180490	Linuron	ND	100	79.5	ng/L	79	(60-140)		
MSD_201309180490	Linuron	ND	100	85.1	ng/L	85	(60-140)	40	6.8
LCS1	Lopressor		400	345	ng/L	86	(60-140)		
LCS2	Lopressor		400	408	ng/L	102	(60-140)	30	17
MBLK	Lopressor			<20	ng/L				
MRL_CHK	Lopressor		20	15.4	ng/L	77	(50-150)		
MS_201309180490	Lopressor	ND	400	342	ng/L	86	(60-140)		
MSD_201309180490	Lopressor	ND	400	350	ng/L	88	(60-140)	40	2.0
LCS1	Meclofenamic Acid		100	102	ng/L	103	(60-140)		
LCS2	Meclofenamic Acid		100	111	ng/L	111	(60-140)	30	7.5
MBLK	Meclofenamic Acid			<5	ng/L				
MRL_CHK	Meclofenamic Acid		5.0	5.61	ng/L	112	(50-150)		
MS_201309180490	Meclofenamic Acid	ND	100	153	ng/L	<u>152</u>	(60-140)		
MSD_201309180490	Meclofenamic Acid	ND	100	162	ng/L	<u>161</u>	(60-140)	40	5.7
LCS1	Meprobamate		100	88.1	ng/L	88	(60-140)		
LCS2	Meprobamate		100	88.5	ng/L	89	(60-140)	30	0.45
MBLK	Meprobamate			<5	ng/L				
MRL_CHK	Meprobamate		5.0	4.56	ng/L	91	(50-150)		
MS_201309180490	Meprobamate	ND	100	204	ng/L	<u>202</u>	(60-140)		
MSD_201309180490	Meprobamate	ND	100	205	ng/L	<u>203</u>	(60-140)	40	0.49
LCS1	Metazachlor		100	112	ng/L	112	(60-140)		
LCS2	Metazachlor		100	116	ng/L	116	(60-140)	30	3.5
MBLK	Metazachlor			<5	ng/L				
MRL_CHK	Metazachlor		5.0	4.41	ng/L	88	(50-150)		
MS_201309180490	Metazachlor	ND	100	80.9	ng/L	81	(60-140)		
MSD_201309180490	Metazachlor	ND	100	82.3	ng/L	82	(60-140)	40	1.7
LCS1	Metolachlor		100	97.0	ng/L	97	(60-140)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Metolachlor		100	101	ng/L	101	(60-140)	30	4.0
MBLK	Metolachlor			<5	ng/L				
MRL_CHK	Metolachlor		5.0	4.56	ng/L	91	(50-150)		
MS_201309180490	Metolachlor	ND	100	96.8	ng/L	97	(60-140)		
MSD_201309180490	Metolachlor	ND	100	96.1	ng/L	96	(60-140)	40	0.73
LCS1	Nifedipine		400	343	ng/L	86	(60-140)		
LCS2	Nifedipine		400	390	ng/L	98	(60-140)	30	13
MBLK	Nifedipine			<20	ng/L				
MRL_CHK	Nifedipine		20	12.4	ng/L	62	(50-150)		
MS_201309180490	Nifedipine	ND	400	1230	ng/L	307	(60-140)		
MSD_201309180490	Nifedipine	ND	400	1320	ng/L	327	(60-140)	40	7.1
LCS1	Norethisterone		100	84.3	ng/L	84	(60-140)		
LCS2	Norethisterone		100	125	ng/L	125	(60-140)	30	39
MBLK	Norethisterone			<5	ng/L				
MRL_CHK	Norethisterone		5.0	3.97	ng/L	80	(50-150)		
MS_201309180490	Norethisterone	ND	100	87.0	ng/L	85	(60-140)		
MSD_201309180490	Norethisterone	ND	100	90.4	ng/L	88	(60-140)	40	3.8
LCS1	Oxolinic acid		100	104	ng/L	104	(60-140)		
LCS2	Oxolinic acid		100	114	ng/L	114	(60-140)	30	9.2
MBLK	Oxolinic acid			<5	ng/L				
MRL_CHK	Oxolinic acid		5.0	4.91	ng/L	98	(50-150)		
MS_201309180490	Oxolinic acid	ND	100	129	ng/L	129	(60-140)		
MSD_201309180490	Oxolinic acid	ND	100	128	ng/L	128	(60-140)	40	0.78
LCS1	Pentoxifylline		100	101	ng/L	101	(60-140)		
LCS2	Pentoxifylline		100	88.2	ng/L	88	(60-140)	30	14
MBLK	Pentoxifylline			<5	ng/L				
MRL_CHK	Pentoxifylline		5.0	6.96	ng/L	139	(50-150)		
MS_201309180490	Pentoxifylline	ND	100	65.7	ng/L	66	(60-140)		
MSD_201309180490	Pentoxifylline	ND	100	77.5	ng/L	77	(60-140)	40	17
LCS1	Phenazone		100	86.7	ng/L	87	(60-140)		
LCS2	Phenazone		100	106	ng/L	106	(60-140)	30	20
MBLK	Phenazone			<5	ng/L				
MRL_CHK	Phenazone		5.0	4.65	ng/L	93	(50-150)		
MS_201309180490	Phenazone	ND	100	220	ng/L	218	(60-140)		
MSD_201309180490	Phenazone	ND	100	237	ng/L	235	(60-140)	40	7.4
LCS1	Primidone		100	106	ng/L	106	(60-140)		
LCS2	Primidone		100	107	ng/L	107	(60-140)	30	0.94
MBLK	Primidone			<5	ng/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Primidone		5.0	5.39	ng/L	108	(50-150)		
MS_201309180490	Primidone	ND	100	74.5	ng/L	74	(60-140)		
MSD_201309180490	Primidone	ND	100	78.1	ng/L	78	(60-140)	40	4.7
LCS1	Progesterone		100	102	ng/L	102	(60-140)		
LCS2	Progesterone		100	114	ng/L	114	(60-140)	30	11
MBLK	Progesterone			<5	ng/L				
MRL_CHK	Progesterone		5.0	4.51	ng/L	90	(50-150)		
MS_201309180490	Progesterone	ND	100	91.0	ng/L	89	(60-140)		
MSD_201309180490	Progesterone	ND	100	96.5	ng/L	95	(60-140)	40	5.9
LCS1	Propazine		100	111	ng/L	111	(60-140)		
LCS2	Propazine		100	128	ng/L	128	(60-140)	30	14
MBLK	Propazine			<5	ng/L				
MRL_CHK	Propazine		5.0	4.77	ng/L	95	(50-150)		
MS_201309180490	Propazine	ND	100	132	ng/L	131	(60-140)		
MSD_201309180490	Propazine	ND	100	139	ng/L	138	(60-140)	40	5.2
LCS1	Quinoline		100	106	ng/L	106	(60-140)		
LCS2	Quinoline		100	113	ng/L	113	(60-140)	30	6.4
MBLK	Quinoline			<5	ng/L				
MRL_CHK	Quinoline		5.0	5.54	ng/L	111	(50-150)		
MS_201309180490	Quinoline	ND	100	75.8	ng/L	76	(60-140)		
MSD_201309180490	Quinoline	ND	100	77.2	ng/L	77	(60-140)	40	1.8
LCS1	Simazine		100	107	ng/L	107	(60-140)		
LCS2	Simazine		100	98.9	ng/L	99	(60-140)	30	7.9
MBLK	Simazine			<5	ng/L				
MRL_CHK	Simazine		5.0	5.48	ng/L	110	(50-150)		
MS_201309180490	Simazine	ND	100	95.2	ng/L	92	(60-140)		
MSD_201309180490	Simazine	ND	100	98.2	ng/L	95	(60-140)	40	3.1
LCS1	Sulfachloropyridazine		100	99.2	ng/L	99	(60-140)		
LCS2	Sulfachloropyridazine		100	97.2	ng/L	97	(60-140)	30	2.0
MBLK	Sulfachloropyridazine			<5	ng/L				
MRL_CHK	Sulfachloropyridazine		5.0	4.62	ng/L	93	(50-150)		
MS_201309180490	Sulfachloropyridazine	ND	100	215	ng/L	215	(60-140)		
MSD_201309180490	Sulfachloropyridazine	ND	100	246	ng/L	246	(60-140)	40	13
LCS1	Sulfadiazine		100	99.1	ng/L	99	(60-140)		
LCS2	Sulfadiazine		100	100	ng/L	101	(60-140)	30	1.9
MBLK	Sulfadiazine			<5	ng/L				
MRL_CHK	Sulfadiazine		5.0	4.80	ng/L	96	(50-150)		
MS_201309180490	Sulfadiazine	ND	100	89.9	ng/L	89	(60-140)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201309180490	Sulfadiazine	ND	100	92.3	ng/L	91	(60-140)	40	2.6
LCS1	Sulfadimethoxine		100	85.2	ng/L	85	(60-140)		
LCS2	Sulfadimethoxine		100	98.7	ng/L	99	(60-140)	30	15
MBLK	Sulfadimethoxine			<5	ng/L				
MRL_CHK	Sulfadimethoxine		5.0	4.08	ng/L	82	(50-150)		
MS_201309180490	Sulfadimethoxine	ND	100	277	ng/L	<u>277</u>	(60-140)		
MSD_201309180490	Sulfadimethoxine	ND	100	303	ng/L	<u>303</u>	(60-140)	40	9.0
LCS1	Sulfamerazine		100	107	ng/L	107	(60-140)		
LCS2	Sulfamerazine		100	128	ng/L	128	(60-140)	30	18
MBLK	Sulfamerazine			<5	ng/L				
MRL_CHK	Sulfamerazine		5.0	5.31	ng/L	106	(50-150)		
MS_201309180490	Sulfamerazine	ND	100	73.3	ng/L	73	(60-140)		
MSD_201309180490	Sulfamerazine	ND	100	85.9	ng/L	86	(60-140)	40	16
LCS1	Sulfamethazine		100	91.6	ng/L	92	(60-140)		
LCS2	Sulfamethazine		100	94.0	ng/L	94	(60-140)	30	2.6
MBLK	Sulfamethazine			<5	ng/L				
MRL_CHK	Sulfamethazine		5.0	4.46	ng/L	89	(50-150)		
MS_201309180490	Sulfamethazine	ND	100	191	ng/L	<u>191</u>	(60-140)		
MSD_201309180490	Sulfamethazine	ND	100	200	ng/L	<u>200</u>	(60-140)	40	4.6
LCS1	Sulfamethizole		100	100	ng/L	100	(60-140)		
LCS2	Sulfamethizole		100	85.4	ng/L	85	(60-140)	30	16
MBLK	Sulfamethizole			<5	ng/L				
MRL_CHK	Sulfamethizole		5.0	4.97	ng/L	100	(50-150)		
MS_201309180490	Sulfamethizole	ND	100	154	ng/L	<u>153</u>	(60-140)		
MSD_201309180490	Sulfamethizole	ND	100	175	ng/L	<u>175</u>	(60-140)	40	13
LCS1	Sulfamethoxazole		100	89.6	ng/L	90	(70-130)		
LCS2	Sulfamethoxazole		100	115	ng/L	115	(70-130)	30	25
MBLK	Sulfamethoxazole			<5	ng/L				
MRL_CHK	Sulfamethoxazole		5.0	5.16	ng/L	103	(50-150)		
MS_201309180490	Sulfamethoxazole	ND	100	75.5	ng/L	74	(60-140)		
MSD_201309180490	Sulfamethoxazole	ND	100	72.2	ng/L	70	(60-140)	40	4.5
LCS1	Sulfathiazole		100	101	ng/L	101	(60-140)		
LCS2	Sulfathiazole		100	120	ng/L	120	(60-140)	30	17
MBLK	Sulfathiazole			<5	ng/L				
MRL_CHK	Sulfathiazole		5.0	3.71	ng/L	74	(50-150)		
MS_201309180490	Sulfathiazole	ND	100	117	ng/L	117	(60-140)		
MSD_201309180490	Sulfathiazole	ND	100	116	ng/L	116	(60-140)	40	0.86
LCS1	TCEP		100	83.5	ng/L	84	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	TCEP		100	99.5	ng/L	100	(60-140)	30	18
MBLK	TCEP			<10	ng/L				
MRL_CHK	TCEP		5.0	4.36	ng/L	87	(50-150)		
MS_201309180490	TCEP	23	100	88.8	ng/L	65	(60-140)		
MSD_201309180490	TCEP	23	100	93.3	ng/L	70	(60-140)	40	4.8
LCS1	TCPP		100	102	ng/L	102	(40-160)		
LCS2	TCPP		100	119	ng/L	119	(40-160)	30	15
MBLK	TCPP			<100	ng/L				
MRL_CHK	TCPP		5.0	4.74	ng/L	95	(40-160)		
MS_201309180490	TCPP	ND	100	163	ng/L	109	(40-160)		
MSD_201309180490	TCPP	ND	100	171	ng/L	117	(40-160)	60	4.8
LCS1	TDCPP		400	365	ng/L	91	(40-160)		
LCS2	TDCPP		400	392	ng/L	98	(40-160)	30	7.1
MBLK	TDCPP			<100	ng/L				
MRL_CHK	TDCPP		20	11.1	ng/L	55	(40-160)		
MS_201309180490	TDCPP	ND	400	492	ng/L	117	(40-160)		
MSD_201309180490	TDCPP	ND	400	522	ng/L	125	(40-160)	60	5.7
LCS1	Testosterone		100	98.4	ng/L	98	(60-140)		
LCS2	Testosterone		100	130	ng/L	130	(60-140)	30	28
MBLK	Testosterone			<5	ng/L				
MRL_CHK	Testosterone		5.0	3.30	ng/L	66	(50-150)		
MS_201309180490	Testosterone	ND	100	89.2	ng/L	89	(60-140)		
MSD_201309180490	Testosterone	ND	100	97.8	ng/L	98	(60-140)	40	9.2
LCS1	Theobromine		100	93.8	ng/L	94	(60-140)		
LCS2	Theobromine		100	113	ng/L	113	(60-140)	30	19
MBLK	Theobromine			<5	ng/L				
MRL_CHK	Theobromine		5.0	3.60	ng/L	72	(50-150)		
MS_201309180490	Theobromine	ND	100	138	ng/L	138	(60-140)		
MSD_201309180490	Theobromine	ND	100	124	ng/L	124	(60-140)	40	11
LCS1	Theophylline		200	215	ng/L	107	(60-140)		
LCS2	Theophylline		200	235	ng/L	118	(60-140)	30	8.9
MBLK	Theophylline			<10	ng/L				
MRL_CHK	Theophylline		10	11.9	ng/L	119	(50-150)		
MS_201309180490	Theophylline	ND	200	156	ng/L	78	(60-140)		
MSD_201309180490	Theophylline	ND	200	148	ng/L	74	(60-140)	40	4.6
LCS1	Trimethoprim		100	73.0	ng/L	73	(60-140)		
LCS2	Trimethoprim		100	116	ng/L	116	(60-140)	30	<u>46</u>
MBLK	Trimethoprim			<5	ng/L				

Spike recovery is already corrected for native results.

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Trimethoprim		5.0	4.48	ng/L	90	(50-150)		
MS_201309180490	Trimethoprim	ND	100	17.2	ng/L	<u>17</u>	(60-140)		
MSD_201309180490	Trimethoprim	ND	100	19.9	ng/L	<u>20</u>	(60-140)	40	15

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

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AT-1807

Laboratory Report

for

Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attention: Brad Jeppson
Fax: 602-265-1422



DEB: Debbie.L.Frank
Project Manager

Report: 457038
Project: SEDONA-AZ
Group: SEDONA-WRP CEC
Study

- * Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted under the individual analysis.
- * Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- * Test results relate only to the sample(s) tested.
- * This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2012-1
California – NELAP	01114CA	New Hampshire	2959
California – ELAP	2813	New Jersey	CA 008
Los Angeles County Sanitation Districts	10264	New Mexico	Certified
Colorado	Certified	New York	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida	E871024	Oregon	CA 200003-011
Georgia	947	Pennsylvania	68-565
Guam	12-006r	Rhode Island	LAO00326
Hawaii	Certified	South Carolina	87016001
Idaho	Certified	South Dakota	Certified
Illinois	200033	Tennessee	TN02839
Indiana	C-CA-01	Texas	T104704230-13-5
Kansas	E-10268	Utah	CA000062013
Kentucky	90107	Vermont	VT0114
Louisiana	LA130008	Virginia	00210
Maine	CA0006	Washington	C838
Maryland	224	West Virginia	9943 C
Commonwealth of Northern Marianas Is.	MP0004	Wisconsin	998316660
Massachusetts	M-CA006	Wyoming	8TMS-L
Michigan	9906	EPA Region 5	Certified

NELAP/TNI Recognized Accreditation Bodies - in 'BLUE'

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/ Combined Residual	SM 4500-CI G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli (MTF/EC+MUG)		x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DCBP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221 C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-S ⁻ D			x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

Acknowledgement of Samples Received

Addr: **Carollo**
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Client ID: CAROLLO
 Folder #: 457038
 Project: SEDONA-AZ
 Sample Group: SEDONA-WRP CEC Study

Attn: Brad Jeppson
 Phone: 602-474-4132

Project Manager: Debbie.L.Frank
 Phone: (626) 386-1149

The following samples were received from you on **November 13, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201311130725	POC Well	11/12/2013 1148
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201311130726	Class A+ Reclaimed Water (Injectate) UV Channel #2	11/12/2013 1305
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201311130727	Field Blank	11/12/2013 1144
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	

Test Description

- @DX_ABI_NEG -- Endocrine Disruptors Negative Mode - SPE
- @DX_ABI_POS -- Endocrine Disruptors Positive Mode - SPE
- @ML521_SPE8 -- Nitrosamines by GCMS

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Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Flags Legend:

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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Laboratory Hits
 Report: 457038

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		201311130725				
		<u>POC Well</u>				
11/25/2013 22:39	Acesulfame-K		180		ng/L	20
11/25/2013 22:39	BPA		390		ng/L	10
12/02/2013 21:19	DACT		5.0		ng/L	5
		201311130726				
		<u>Class A+ Reclaimed Water (Injectate) UV Channel #2</u>				
11/25/2013 22:58	Acesulfame-K		290		ng/L	20
12/02/2013 21:39	Albuterol		11		ng/L	5
12/02/2013 21:39	Atenolol		43		ng/L	5
12/02/2013 21:39	Caffeine		70		ng/L	5
12/02/2013 21:39	Carbamazepine		2500		ng/L	50
12/02/2013 21:39	Carisoprodol		100		ng/L	5
12/02/2013 21:39	Cotinine		30		ng/L	10
12/02/2013 21:39	DEET		13		ng/L	10
12/02/2013 21:39	Dehydronifedipine		53		ng/L	5
11/25/2013 22:58	Diclofenac		12		ng/L	5
12/02/2013 21:39	Dilantin		76		ng/L	20
12/02/2013 21:39	Diltiazem		47		ng/L	5
11/25/2013 22:58	Gemfibrozil		7.8		ng/L	5
11/25/2013 22:58	Iohexal		11		ng/L	10
12/02/2013 21:39	Lidocaine		180		ng/L	5
12/02/2013 21:39	Lopressor		190		ng/L	20
12/02/2013 21:39	Meprobamate		95		ng/L	5
12/02/2013 21:39	Primidone		160		ng/L	5
11/25/2013 22:58	Sucralose		45000		ng/L	1000
12/02/2013 21:39	Sulfamethoxazole		830		ng/L	5
12/02/2013 21:39	TCEP		190		ng/L	10
12/02/2013 21:39	T CPP		350		ng/L	100
12/02/2013 21:39	TDCPP		240		ng/L	100
12/02/2013 21:39	Theophylline		210		ng/L	20

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Laboratory Data
 Report: 457038

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
POC Well (201311130725)					Sampled on 11/12/2013 1148			
EPA 521 - Nitrosamines by GCMS								
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
11/15/2013	11/21/2013	02:31 737776	(EPA 521)	NDMA-D6	91	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	12/02/2013	21:19 738350	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND (R7)	ng/L	20	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Chlorotoluron	ND (R7)	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Cimetidine	ND (R7)	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	DACT	5.0	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	DEA	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	DEET	ND	ng/L	10	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	DIA	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 457038

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	12/02/2013	21:19	738350	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Diltiazem	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Lidocaine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Lopressor	ND	ng/L	20	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Meprobamate	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Primidone	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfamethazine	ND (R7)	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfamethoxazole	ND	ng/L	5	1
	12/02/2013	21:19	738350	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1

Rounding on totals after summation.
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 1 800 566 LABS (1 800 566 5227)

Laboratory Data
 Report: 457038

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	12/02/2013	21:19 738350	(LC-MS-MS)	TCEP	ND	ng/L	10	1
	12/02/2013	21:19 738350	(LC-MS-MS)	TCPP	ND	ng/L	100	1
	12/02/2013	21:19 738350	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	12/02/2013	21:19 738350	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	11/25/2013	22:39 738381	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	11/25/2013	22:39 738381	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Acesulfame-K	180	ng/L	20	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	BPA	390	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	lohexal	ND	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	11/25/2013	22:39 738381	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

Class A+ Reclaimed Water (Injectate) UV Channel #2 (201311130726)

Sampled on 11/12/2013 1305

Rounding on totals after summation.
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Laboratory Data
 Report: 457038

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
EPA 521 - Nitrosamines by GCMS								
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
11/15/2013	11/21/2013	03:19 737776	(EPA 521)	NDMA-D6	83	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	12/02/2013	21:39 738350	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Albuterol	11	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND (R7)	ng/L	20	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Atenolol	43	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Caffeine	70	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Carbamazepine	2500	ng/L	50	10
	12/02/2013	21:39 738350	(LC-MS-MS)	Carisoprodol	100	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Chlorotoluron	ND (R7)	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Cimetidine	ND (R7)	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Cotinine	30	ng/L	10	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	DACT	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	DEA	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	DEET	13	ng/L	10	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Dehydronifedipine	53	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	DIA	ND	ng/L	5	1
	12/02/2013	21:39 738350	(LC-MS-MS)	Diazepam	ND	ng/L	5	1

Rounding on totals after summation.
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Laboratory Data
 Report: 457038

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	12/02/2013	21:39	738350	(LC-MS-MS)	Dilantin	76	ng/L	20	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Diltiazem	47	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Lidocaine	180	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Lopressor	190	ng/L	20	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Meprobamate	95	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Primidone	160	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfamethazine	ND (R7)	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfamethoxazole	830	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1
	12/02/2013	21:39	738350	(LC-MS-MS)	TCEP	190	ng/L	10	1

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Carollo

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Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	12/02/2013 21:39	738350	(LC-MS-MS)	T CPP	350	ng/L	100	1
	12/02/2013 21:39	738350	(LC-MS-MS)	TDCPP	240	ng/L	100	1
	12/02/2013 21:39	738350	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	12/02/2013 21:39	738350	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	12/02/2013 21:39	738350	(LC-MS-MS)	Theophylline	210	ng/L	20	1
	12/02/2013 21:39	738350	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	11/25/2013 22:58	738381	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	11/25/2013 22:58	738381	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Acesulfame-K	290	ng/L	20	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	BPA	ND	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Diclofenac	12	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Gemfibrozil	7.8	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	lohexal	11	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Sucralose	45000	ng/L	1000	10
	11/25/2013 22:58	738381	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	11/25/2013 22:58	738381	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

Field Blank (201311130727)

Sampled on 11/12/2013 1144

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Carollo

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Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
EPA 521 - Nitrosamines by GCMS								
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
11/15/2013	11/21/2013	05:43 737776	(EPA 521)	NDMA-D6	87	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	12/02/2013	21:59 738350	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND (R7)	ng/L	20	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Azithromycin	ND	ng/L	20	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Chlorotoluron	ND (R7)	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Cimetidine	ND (R7)	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	DACT	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	DEA	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	DEET	ND	ng/L	10	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	DIA	ND	ng/L	5	1
	12/02/2013	21:59 738350	(LC-MS-MS)	Diazepam	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 457038

Carollo

Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	12/02/2013	21:59	738350	(LC-MS-MS)	Dilantin	ND	20	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Diltiazem	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Diuron	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Erythromycin	ND	10	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Flumequine	ND	10	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Fluoxetine	ND	10	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Isoproturon	ND	100	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Ketoprofen	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Ketorolac	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Lidocaine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Lincomycin	ND	10	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Linuron	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Lopressor	ND	20	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Meclofenamic Acid	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Meprobamate	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Metazachlor	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Metolachlor	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Nifedipine	ND	20	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Norethisterone	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Oxolinic acid	ND	10	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Pentoxifylline	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Phenazone	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Primidone	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Progesterone	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Propazine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Quinoline	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Simazine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfachloropyridazine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfadiazine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfadimethoxine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfamerazine	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfamethazine	ND (R7)	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfamethizole	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfamethoxazole	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	Sulfathiazole	ND	5	1
	12/02/2013	21:59	738350	(LC-MS-MS)	TCEP	ND	10	1

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Laboratory Data
 Report: 457038

Carollo

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Samples Received on:
 11/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	12/02/2013 21:59	738350	(LC-MS-MS)	T CPP	ND	ng/L	100	1
	12/02/2013 21:59	738350	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	12/02/2013 21:59	738350	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	12/02/2013 21:59	738350	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	12/02/2013 21:59	738350	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	12/02/2013 21:59	738350	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	11/25/2013 23:16	738381	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	11/25/2013 23:16	738381	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Acesulfame-K	ND	ng/L	20	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	BPA	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	lohexal	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	11/25/2013 23:16	738381	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

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QC Ref # 737776 - Nitrosamines by GCMS**Analysis Date: 11/21/2013**

201311130725	POC Well	Analyzed by: KDT
201311130726	Class A+ Reclaimed Water (Injectate) UV Channel #2	Analyzed by: KDT
201311130727	Field Blank	Analyzed by: KDT

QC Ref # 738350 - Endocrine Disruptors Positive Mode - SPE**Analysis Date: 12/02/2013**

201311130725	POC Well	Analyzed by: ARH
201311130726	Class A+ Reclaimed Water (Injectate) UV Channel #2	Analyzed by: ARH
201311130727	Field Blank	Analyzed by: ARH

QC Ref # 738381 - Endocrine Disruptors Negative Mode - SPE**Analysis Date: 11/25/2013**

201311130725	POC Well	Analyzed by: ARH
201311130726	Class A+ Reclaimed Water (Injectate) UV Channel #2	Analyzed by: ARH
201311130727	Field Blank	Analyzed by: ARH

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 737553 - Nitrosamines by GCMS by EPA 521						Analysis Date: 11/18/2013			
LCS3	NDMA-D6 (S)			87.6	%	88	(70-130)		
MBLK	NDMA-D6 (S)			87.8	%	88	(70-130)		
MRL_CHK	NDMA-D6 (S)			87.4	%	87	(70-130)		
MS2_201311120321	NDMA-D6 (S)			85.3	%	85	(70-130)		
MSD2_201311120321	NDMA-D6 (S)			101	%	101	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	67.5	ng/L	84	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	2.44	ng/L	122	(50-150)		
MS2_201311120321	N-Nitroso dimethylamine (NDMA)	270	40	222	ng/L	<u>20</u>	(70-130)		
MSD2_201311120321	N-Nitroso dimethylamine (NDMA)	270	40	242	ng/l	72	(70-130)	30	8.6
LCS3	N-Nitrosodibutylamine (NDBA)		80	56.8	ng/L	71	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.36	ng/L	118	(50-150)		
MS2_201311120321	N-Nitrosodibutylamine (NDBA)		40	28.0	ng/L	70	(70-130)		
MSD2_201311120321	N-Nitrosodibutylamine (NDBA)		40	30.3	ng/l	76	(70-130)	30	7.9
LCS3	N-Nitrosodiethylamine (NDEA)		80	63.0	ng/L	79	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	2.29	ng/L	114	(50-150)		
MS2_201311120321	N-Nitrosodiethylamine (NDEA)		40	32.8	ng/L	82	(70-130)		
MSD2_201311120321	N-Nitrosodiethylamine (NDEA)		40	35.9	ng/L	90	(70-130)	30	9.0
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	58.0	ng/L	73	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	2.58	ng/L	129	(50-150)		
MS2_201311120321	N-Nitrosodi-n-propylamin(NDPA)		40	31.1	ng/L	78	(70-130)		
MSD2_201311120321	N-Nitrosodi-n-propylamin(NDPA)		40	33.9	ng/l	85	(70-130)	30	8.6
LCS3	N-Nitrosomethylethylamin(NMEA)		80	65.7	ng/L	82	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.86	ng/L	93	(50-150)		
MS2_201311120321	N-Nitrosomethylethylamin(NMEA)		40	31.9	ng/L	80	(70-130)		
MSD2_201311120321	N-Nitrosomethylethylamin(NMEA)		40	37.5	ng/L	94	(70-130)	30	16
LCS3	N-Nitrosomorpholine		80	62.6	ng/l	78	(70-130)		
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.94	ng/l	97	(50-150)		
MS2_201311120321	N-Nitrosomorpholine		40	35.1	ng/l	88	(70-130)		
MSD2_201311120321	N-Nitrosomorpholine		40	38.0	ng/l	95	(70-130)	30	7.9
LCS3	N-Nitrosopiperidine (NPIP)		80	61.1	ng/L	76	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	1.70	ng/L	85	(50-150)		
MS2_201311120321	N-Nitrosopiperidine (NPIP)		40	31.3	ng/L	78	(70-130)		
MSD2_201311120321	N-Nitrosopiperidine (NPIP)		40	36.4	ng/l	91	(70-130)	30	15
LCS3	N-Nitrosopyrrolidine (NPYR)		80	67.8	ng/L	85	(70-130)		
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	2.11	ng/L	106	(50-150)		
MS2_201311120321	N-Nitrosopyrrolidine (NPYR)		40	35.2	ng/L	88	(70-130)		
MSD2_201311120321	N-Nitrosopyrrolidine (NPYR)		40	39.9	ng/L	100	(70-130)	30	13
QC Ref# 738350 - Endocrine Disruptors Positive Mode - SPE by LC-MS-MS						Analysis Date: 12/02/2013			
LCS1	1,7-Dimethylxanthine		100	99.0	ng/L	99	(60-140)		
LCS2	1,7-Dimethylxanthine		100	91.0	ng/L	91	(60-140)	30	8.4
MBLK	1,7-Dimethylxanthine			<5	ng/L				
MRL_CHK	1,7-Dimethylxanthine		5.0	4.42	ng/L	89	(50-150)		
MS_201311010206	1,7-Dimethylxanthine	ND	100	108	ng/L	109	(60-140)		
MSD_201311010206	1,7-Dimethylxanthine	ND	100	116	ng/L	116	(60-140)	40	6.2
LCS1	Acetaminophen		100	92.6	ng/L	93	(60-140)		
LCS2	Acetaminophen		100	95.1	ng/L	95	(60-140)	30	2.7
MBLK	Acetaminophen			<5	ng/L				
MRL_CHK	Acetaminophen		5.0	2.78	ng/L	56	(50-150)		
MS_201311010206	Acetaminophen	ND	100	119	ng/L	94	(60-140)		
MSD_201311010206	Acetaminophen	ND	100	114	ng/L	90	(60-140)	40	4.3
LCS1	Albuterol		100	94.3	ng/L	94	(60-140)		
LCS2	Albuterol		100	88.8	ng/L	89	(60-140)	30	6.0
MBLK	Albuterol			<5	ng/L				
MRL_CHK	Albuterol		5.0	5.57	ng/L	111	(50-150)		
MS_201311010206	Albuterol	ND	100	113	ng/L	112	(60-140)		
MSD_201311010206	Albuterol	ND	100	89.2	ng/L	88	(60-140)	40	24
LCS1	Amoxicillin (semi-quantitative)		400	537	ng/L	134	(60-140)		
LCS2	Amoxicillin (semi-quantitative)		400	370	ng/L	93	(60-140)	30	<u>37</u>
MBLK	Amoxicillin (semi-quantitative)			<20	ng/L				
MRL_CHK	Amoxicillin (semi-quantitative)		20	12.1	ng/L	61	(50-150)		
MS_201311010206	Amoxicillin (semi-quantitative)	ND	400	60.8	ng/L	<u>15</u>	(60-140)		
MSD_201311010206	Amoxicillin (semi-quantitative)	ND	400	67.5	ng/L	<u>17</u>	(60-140)	40	10
LCS1	Androstenedione		100	104	ng/L	104	(60-140)		
LCS2	Androstenedione		100	93.2	ng/L	93	(60-140)	30	11
MBLK	Androstenedione			<5	ng/L				
MRL_CHK	Androstenedione		5.0	4.56	ng/L	91	(50-150)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201311010206	Androstenedione	ND	100	109	ng/L	109	(60-140)		
MSD_201311010206	Androstenedione	ND	100	116	ng/L	116	(60-140)	40	6.2
LCS1	Atenolol		100	97.1	ng/L	97	(60-140)		
LCS2	Atenolol		100	111	ng/L	111	(60-140)	30	13
MBLK	Atenolol			<5	ng/L				
MRL_CHK	Atenolol		5.0	3.05	ng/L	61	(50-150)		
MS_201311010206	Atenolol	ND	100	93.2	ng/L	91	(60-140)		
MSD_201311010206	Atenolol	ND	100	82.8	ng/L	81	(60-140)	40	12
LCS1	Atrazine		100	99.7	ng/L	100	(60-140)		
LCS2	Atrazine		100	90.7	ng/L	91	(60-140)	30	9.4
MBLK	Atrazine			<5	ng/L				
MRL_CHK	Atrazine		5.0	4.54	ng/L	91	(50-150)		
MS_201311010206	Atrazine	ND	100	98.9	ng/L	99	(60-140)		
MSD_201311010206	Atrazine	ND	100	102	ng/L	102	(60-140)	40	3.1
LCS1	Azithromycin		400	263	ng/L	66	(60-140)		
LCS2	Azithromycin		400	271	ng/L	68	(60-140)	30	3.0
MBLK	Azithromycin			<20	ng/L				
MRL_CHK	Azithromycin		20	27.1	ng/L	135	(50-150)		
MS_201311010206	Azithromycin	ND	400	1820	ng/L	453	(60-140)		
MSD_201311010206	Azithromycin	ND	400	1590	ng/L	397	(60-140)	40	14
LCS1	Bezafibrate		100	112	ng/L	112	(60-140)		
LCS2	Bezafibrate		100	101	ng/L	101	(60-140)	30	10
MBLK	Bezafibrate			<5	ng/L				
MRL_CHK	Bezafibrate		5.0	4.75	ng/L	95	(50-150)		
MS_201311010206	Bezafibrate	ND	100	140	ng/L	140	(60-140)		
MSD_201311010206	Bezafibrate	ND	100	135	ng/L	135	(60-140)	40	3.6
LCS1	Bromacil		100	96.7	ng/L	97	(60-140)		
LCS2	Bromacil		100	96.5	ng/L	97	(60-140)	30	0.21
MBLK	Bromacil			<5	ng/L				
MRL_CHK	Bromacil		5.0	3.84	ng/L	77	(50-150)		
MS_201311010206	Bromacil	ND	100	103	ng/L	103	(60-140)		
MSD_201311010206	Bromacil	ND	100	102	ng/L	102	(60-140)	40	0.0
LCS1	Caffeine		100	99.4	ng/L	99	(70-130)		
LCS2	Caffeine		100	98.7	ng/L	99	(70-130)	30	0.71
MBLK	Caffeine			<5	ng/L				
MRL_CHK	Caffeine		5.0	4.06	ng/L	81	(50-150)		
MS_201311010206	Caffeine	5.9	100	99.0	ng/L	93	(60-140)		
MSD_201311010206	Caffeine	5.9	100	89.0	ng/L	83	(60-140)	40	11

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Carbadox		100	80.6	ng/L	81	(60-140)		
LCS2	Carbadox		100	101	ng/L	101	(60-140)	30	23
MBLK	Carbadox			<5	ng/L				
MRL_CHK	Carbadox		5.0	4.50	ng/L	90	(50-150)		
MS_201311010206	Carbadox	ND	100	10.4	ng/L	<u>10</u>	(60-140)		
MSD_201311010206	Carbadox	ND	100	12.8	ng/L	<u>13</u>	(60-140)	40	21
LCS1	Carbamazepine		100	104	ng/L	104	(60-140)		
LCS2	Carbamazepine		100	105	ng/L	105	(60-140)	30	0.96
MBLK	Carbamazepine			<5	ng/L				
MRL_CHK	Carbamazepine		5.0	5.03	ng/L	101	(50-150)		
MS_201311010206	Carbamazepine	5.0	100	115	ng/L	110	(60-140)		
MSD_201311010206	Carbamazepine	5.0	100	101	ng/L	96	(60-140)	40	13
LCS1	Carisoprodol		100	91.1	ng/L	91	(60-140)		
LCS2	Carisoprodol		100	84.5	ng/L	85	(60-140)	30	7.5
MBLK	Carisoprodol			<5	ng/L				
MRL_CHK	Carisoprodol		5.0	3.80	ng/L	76	(50-150)		
MS_201311010206	Carisoprodol	7.0	100	130	ng/L	123	(60-140)		
MSD_201311010206	Carisoprodol	7.0	100	137	ng/L	130	(60-140)	40	5.2
LCS1	Chloridazon		100	85.6	ng/L	86	(60-140)		
LCS2	Chloridazon		100	86.5	ng/L	87	(60-140)	30	0.93
MBLK	Chloridazon			<5	ng/L				
MRL_CHK	Chloridazon		5.0	3.65	ng/L	73	(50-150)		
MS_201311010206	Chloridazon	ND	100	28.3	ng/L	<u>28</u>	(60-140)		
MSD_201311010206	Chloridazon	ND	100	35.0	ng/L	<u>35</u>	(60-140)	40	21
LCS1	Chlorotoluron		100	102	ng/L	103	(60-140)		
LCS2	Chlorotoluron		100	70.4	ng/L	70	(60-140)	30	<u>38</u>
MBLK	Chlorotoluron			<5	ng/L				
MRL_CHK	Chlorotoluron		5.0	4.73	ng/L	95	(50-150)		
MS_201311010206	Chlorotoluron	ND	100	67.7	ng/L	68	(60-140)		
MSD_201311010206	Chlorotoluron	ND	100	62.9	ng/L	63	(60-140)	40	7.3
LCS1	Cimetidine		100	123	ng/L	123	(60-140)		
LCS2	Cimetidine		100	73.2	ng/L	73	(60-140)	30	<u>51</u>
MBLK	Cimetidine			<5	ng/L				
MRL_CHK	Cimetidine		5.0	3.96	ng/L	79	(50-150)		
MS_201311010206	Cimetidine	ND	100	23.5	ng/L	<u>20</u>	(60-140)		
MSD_201311010206	Cimetidine	ND	100	15.6	ng/L	<u>12</u>	(60-140)	40	40
LCS1	Cotinine		200	161	ng/L	81	(60-140)		
LCS2	Cotinine		200	129	ng/L	65	(60-140)	30	22

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Cotinine			<10	ng/L				
MRL_CHK	Cotinine		10	8.24	ng/L	82	(50-150)		
MS_201311010206	Cotinine	ND	200	229	ng/L	113	(60-140)		
MSD_201311010206	Cotinine	ND	200	199	ng/L	99	(60-140)	40	14
LCS1	Cyanazine		100	81.9	ng/L	82	(60-140)		
LCS2	Cyanazine		100	105	ng/L	105	(60-140)	30	25
MBLK	Cyanazine			<5	ng/L				
MRL_CHK	Cyanazine		5.0	4.45	ng/L	89	(50-150)		
MS_201311010206	Cyanazine	ND	100	108	ng/L	108	(60-140)		
MSD_201311010206	Cyanazine	ND	100	96.1	ng/L	96	(60-140)	40	12
LCS1	DACT		100	106	ng/L	106	(60-140)		
LCS2	DACT		100	89.6	ng/L	90	(60-140)	30	17
MBLK	DACT			<5	ng/L				
MRL_CHK	DACT		5.0	4.00	ng/L	80	(50-150)		
MS_201311010206	DACT	ND	100	88.5	ng/L	89	(60-140)		
MSD_201311010206	DACT	ND	100	80.0	ng/L	80	(60-140)	40	10
LCS1	DEA		100	99.4	ng/L	99	(60-140)		
LCS2	DEA		100	108	ng/L	108	(60-140)	30	8.3
MBLK	DEA			<5	ng/L				
MRL_CHK	DEA		5.0	3.96	ng/L	79	(50-150)		
MS_201311010206	DEA	ND	100	109	ng/L	109	(60-140)		
MSD_201311010206	DEA	ND	100	107	ng/L	107	(60-140)	40	1.9
LCS1	DEET		40	45.2	ng/L	113	(70-130)		
LCS2	DEET		40	40.4	ng/L	101	(70-130)	30	11
MBLK	DEET			<6	ng/L				
MRL_CHK	DEET		2.0	1.98	ng/L	99	(50-150)		
MS_201311010206	DEET	ND	40	38.4	ng/L	91	(60-140)		
MSD_201311010206	DEET	ND	40	40.3	ng/L	96	(60-140)	40	4.8
LCS1	Dehydronifedipine		100	116	ng/L	116	(60-140)		
LCS2	Dehydronifedipine		100	94.4	ng/L	94	(60-140)	30	21
MBLK	Dehydronifedipine			<5	ng/L				
MRL_CHK	Dehydronifedipine		5.0	6.40	ng/L	128	(50-150)		
MS_201311010206	Dehydronifedipine	10	100	189	ng/L	<u>178</u>	(60-140)		
MSD_201311010206	Dehydronifedipine	10	100	195	ng/L	<u>185</u>	(60-140)	40	3.1
LCS1	DIA		100	100	ng/L	100	(60-140)		
LCS2	DIA		100	81.3	ng/L	81	(60-140)	30	21
MBLK	DIA			<5	ng/L				
MRL_CHK	DIA		5.0	5.23	ng/L	105	(50-150)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201311010206	DIA	ND	100	91.0	ng/L	91	(60-140)		
MSD_201311010206	DIA	ND	100	85.7	ng/L	86	(60-140)	40	6.0
LCS1	Diazepam		100	91.3	ng/L	91	(60-140)		
LCS2	Diazepam		100	90.4	ng/L	90	(60-140)	30	0.99
MBLK	Diazepam			<5	ng/L				
MRL_CHK	Diazepam		5.0	3.52	ng/L	70	(50-150)		
MS_201311010206	Diazepam	ND	100	95.5	ng/L	96	(60-140)		
MSD_201311010206	Diazepam	ND	100	91.9	ng/L	92	(60-140)	40	3.8
LCS1	Dilantin		400	376	ng/L	94	(60-140)		
LCS2	Dilantin		400	324	ng/L	81	(60-140)	30	15
MBLK	Dilantin			<20	ng/L				
MRL_CHK	Dilantin		20	19.3	ng/L	97	(50-150)		
MS_201311010206	Dilantin	ND	400	375	ng/L	94	(60-140)		
MSD_201311010206	Dilantin	ND	400	355	ng/L	89	(60-140)	40	5.5
LCS1	Diltiazem		100	91.9	ng/L	92	(60-140)		
LCS2	Diltiazem		100	69.6	ng/L	70	(60-140)	30	28
MBLK	Diltiazem			<5	ng/L				
MRL_CHK	Diltiazem		5.0	5.61	ng/L	112	(50-150)		
MS_201311010206	Diltiazem	ND	100	206	ng/L	204	(60-140)		
MSD_201311010206	Diltiazem	ND	100	163	ng/L	161	(60-140)	40	23
LCS1	Diuron		100	114	ng/L	114	(60-140)		
LCS2	Diuron		100	111	ng/L	111	(60-140)	30	2.7
MBLK	Diuron			<5	ng/L				
MRL_CHK	Diuron		5.0	4.07	ng/L	82	(50-150)		
MS_201311010206	Diuron	ND	100	98.6	ng/L	98	(60-140)		
MSD_201311010206	Diuron	ND	100	106	ng/L	106	(60-140)	40	7.2
LCS1	Erythromycin		200	149	ng/L	75	(60-140)		
LCS2	Erythromycin		200	123	ng/L	61	(60-140)	30	19
MBLK	Erythromycin			<10	ng/L				
MRL_CHK	Erythromycin		10	12.2	ng/L	122	(50-150)		
MS_201311010206	Erythromycin	ND	200	252	ng/L	125	(60-140)		
MSD_201311010206	Erythromycin	ND	200	163	ng/L	81	(60-140)	40	43
LCS1	Flumequine		200	183	ng/L	92	(60-140)		
LCS2	Flumequine		200	146	ng/L	73	(60-140)	30	23
MBLK	Flumequine			<10	ng/L				
MRL_CHK	Flumequine		10	10.1	ng/L	101	(50-150)		
MS_201311010206	Flumequine	ND	200	165	ng/L	82	(60-140)		
MSD_201311010206	Flumequine	ND	200	151	ng/L	75	(60-140)	40	8.9

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Fluoxetine		100	105	ng/L	105	(60-140)		
LCS2	Fluoxetine		100	120	ng/L	120	(60-140)	30	13
MBLK	Fluoxetine			<10	ng/L				
MRL_CHK	Fluoxetine		5.0	7.44	ng/L	149	(50-150)		
MS_201311010206	Fluoxetine	ND	100	102	ng/L	97	(60-140)		
MSD_201311010206	Fluoxetine	ND	100	90.4	ng/L	86	(60-140)	40	12
LCS1	Isoproturon		400	505	ng/L	126	(60-140)		
LCS2	Isoproturon		400	439	ng/L	110	(60-140)	30	14
MBLK	Isoproturon			<20	ng/L				
MRL_CHK	Isoproturon		20	20.5	ng/L	103	(50-150)		
MS_201311010206	Isoproturon	ND	400	425	ng/L	106	(60-140)		
MSD_201311010206	Isoproturon	ND	400	377	ng/L	94	(60-140)	40	12
LCS1	Ketoprofen		100	107	ng/L	107	(60-140)		
LCS2	Ketoprofen		100	102	ng/L	103	(60-140)	30	3.8
MBLK	Ketoprofen			<5	ng/L				
MRL_CHK	Ketoprofen		5.0	4.89	ng/L	98	(50-150)		
MS_201311010206	Ketoprofen	ND	100	91.7	ng/L	92	(60-140)		
MSD_201311010206	Ketoprofen	ND	100	93.8	ng/L	94	(60-140)	40	2.3
LCS1	Ketorolac		100	106	ng/L	106	(60-140)		
LCS2	Ketorolac		100	85.0	ng/L	85	(60-140)	30	22
MBLK	Ketorolac			<5	ng/L				
MRL_CHK	Ketorolac		5.0	4.15	ng/L	83	(50-150)		
MS_201311010206	Ketorolac	ND	100	94.4	ng/L	94	(60-140)		
MSD_201311010206	Ketorolac	ND	100	108	ng/L	108	(60-140)	40	13
LCS1	Lidocaine		100	113	ng/L	113	(60-140)		
LCS2	Lidocaine		100	101	ng/L	101	(60-140)	30	11
MBLK	Lidocaine			<5	ng/L				
MRL_CHK	Lidocaine		5.0	4.70	ng/L	94	(50-150)		
MS_201311010206	Lidocaine	ND	100	32.7	ng/L	<u>32</u>	(60-140)		
MSD_201311010206	Lidocaine	ND	100	35.2	ng/L	<u>34</u>	(60-140)	40	7.4
LCS1	Lincomycin		200	214	ng/L	107	(60-140)		
LCS2	Lincomycin		200	196	ng/L	98	(60-140)	30	8.8
MBLK	Lincomycin			<10	ng/L				
MRL_CHK	Lincomycin		10	9.19	ng/L	92	(50-150)		
MS_201311010206	Lincomycin	ND	200	30.7	ng/L	<u>15</u>	(60-140)		
MSD_201311010206	Lincomycin	ND	200	27.9	ng/L	<u>14</u>	(60-140)	40	9.6
LCS1	Linuron		100	89.4	ng/L	90	(60-140)		
LCS2	Linuron		100	109	ng/L	109	(60-140)	30	20

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Linuron			<5	ng/L				
MRL_CHK	Linuron		5.0	5.64	ng/L	113	(50-150)		
MS_201311010206	Linuron	ND	100	102	ng/L	103	(60-140)		
MSD_201311010206	Linuron	ND	100	92.2	ng/L	92	(60-140)	40	11
LCS1	Lopressor		400	430	ng/L	108	(60-140)		
LCS2	Lopressor		400	377	ng/L	94	(60-140)	30	13
MBLK	Lopressor			<20	ng/L				
MRL_CHK	Lopressor		20	21.1	ng/L	106	(50-150)		
MS_201311010206	Lopressor	ND	400	152	ng/L	<u>38</u>	(60-140)		
MSD_201311010206	Lopressor	ND	400	148	ng/L	<u>37</u>	(60-140)	40	2.7
LCS1	Meclofenamic Acid		100	77.9	ng/L	78	(60-140)		
LCS2	Meclofenamic Acid		100	68.6	ng/L	69	(60-140)	30	13
MBLK	Meclofenamic Acid			<5	ng/L				
MRL_CHK	Meclofenamic Acid		5.0	4.00	ng/L	80	(50-150)		
MS_201311010206	Meclofenamic Acid	ND	100	132	ng/L	132	(60-140)		
MSD_201311010206	Meclofenamic Acid	ND	100	132	ng/L	132	(60-140)	40	0.0
LCS1	Meprobamate		100	83.5	ng/L	84	(60-140)		
LCS2	Meprobamate		100	70.3	ng/L	70	(60-140)	30	17
MBLK	Meprobamate			<5	ng/L				
MRL_CHK	Meprobamate		5.0	3.46	ng/L	69	(50-150)		
MS_201311010206	Meprobamate	14	100	83.9	ng/L	70	(60-140)		
MSD_201311010206	Meprobamate	14	100	75.6	ng/L	62	(60-140)	40	10
LCS1	Metazachlor		100	123	ng/L	123	(60-140)		
LCS2	Metazachlor		100	108	ng/L	108	(60-140)	30	13
MBLK	Metazachlor			<5	ng/L				
MRL_CHK	Metazachlor		5.0	5.84	ng/L	117	(50-150)		
MS_201311010206	Metazachlor	ND	100	108	ng/L	107	(60-140)		
MSD_201311010206	Metazachlor	ND	100	96.7	ng/L	97	(60-140)	40	11
LCS1	Metolachlor		100	139	ng/L	139	(60-140)		
LCS2	Metolachlor		100	120	ng/L	120	(60-140)	30	15
MBLK	Metolachlor			<5	ng/L				
MRL_CHK	Metolachlor		5.0	5.27	ng/L	105	(50-150)		
MS_201311010206	Metolachlor	ND	100	121	ng/L	121	(60-140)		
MSD_201311010206	Metolachlor	ND	100	106	ng/L	106	(60-140)	40	13
LCS1	Nifedipine		400	449	ng/L	112	(60-140)		
LCS2	Nifedipine		400	422	ng/L	106	(60-140)	30	6.2
MBLK	Nifedipine			<20	ng/L				
MRL_CHK	Nifedipine		20	18.4	ng/L	92	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201311010206	Nifedipine	ND	400	520	ng/L	129	(60-140)		
MSD_201311010206	Nifedipine	ND	400	523	ng/L	130	(60-140)	40	0.57
LCS1	Norethisterone		100	110	ng/L	111	(60-140)		
LCS2	Norethisterone		100	96.2	ng/L	96	(60-140)	30	14
MBLK	Norethisterone			<5	ng/L				
MRL_CHK	Norethisterone		5.0	4.07	ng/L	81	(50-150)		
MS_201311010206	Norethisterone	ND	100	107	ng/L	105	(60-140)		
MSD_201311010206	Norethisterone	ND	100	120	ng/L	117	(60-140)	40	12
LCS1	Oxolinic acid		100	103	ng/L	103	(60-140)		
LCS2	Oxolinic acid		100	100	ng/L	101	(60-140)	30	2.0
MBLK	Oxolinic acid			<5	ng/L				
MRL_CHK	Oxolinic acid		5.0	5.64	ng/L	113	(50-150)		
MS_201311010206	Oxolinic acid	ND	100	124	ng/L	123	(60-140)		
MSD_201311010206	Oxolinic acid	ND	100	138	ng/L	137	(60-140)	40	11
LCS1	Pentoxifylline		100	107	ng/L	107	(60-140)		
LCS2	Pentoxifylline		100	105	ng/L	105	(60-140)	30	1.9
MBLK	Pentoxifylline			<5	ng/L				
MRL_CHK	Pentoxifylline		5.0	6.25	ng/L	125	(50-150)		
MS_201311010206	Pentoxifylline	ND	100	60.8	ng/L	61	(60-140)		
MSD_201311010206	Pentoxifylline	ND	100	65.6	ng/L	66	(60-140)	40	7.6
LCS1	Phenazone		100	85.2	ng/L	85	(60-140)		
LCS2	Phenazone		100	105	ng/L	105	(60-140)	30	21
MBLK	Phenazone			<5	ng/L				
MRL_CHK	Phenazone		5.0	3.30	ng/L	66	(50-150)		
MS_201311010206	Phenazone	ND	100	90.0	ng/L	90	(60-140)		
MSD_201311010206	Phenazone	ND	100	74.4	ng/L	74	(60-140)	40	19
LCS1	Primidone		100	81.1	ng/L	81	(60-140)		
LCS2	Primidone		100	99.6	ng/L	100	(60-140)	30	21
MBLK	Primidone			<5	ng/L				
MRL_CHK	Primidone		5.0	4.81	ng/L	96	(50-150)		
MS_201311010206	Primidone	6.4	100	119	ng/L	113	(60-140)		
MSD_201311010206	Primidone	6.4	100	105	ng/L	99	(60-140)	40	13
LCS1	Progesterone		100	82.5	ng/L	83	(60-140)		
LCS2	Progesterone		100	84.9	ng/L	85	(60-140)	30	2.9
MBLK	Progesterone			<5	ng/L				
MRL_CHK	Progesterone		5.0	3.50	ng/L	70	(50-150)		
MS_201311010206	Progesterone	ND	100	83.7	ng/L	83	(60-140)		
MSD_201311010206	Progesterone	ND	100	90.0	ng/L	90	(60-140)	40	7.4

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Propazine		100	105	ng/L	105	(60-140)		
LCS2	Propazine		100	97.1	ng/L	97	(60-140)	30	7.8
MBLK	Propazine			<5	ng/L				
MRL_CHK	Propazine		5.0	4.41	ng/L	88	(50-150)		
MS_201311010206	Propazine	ND	100	119	ng/L	119	(60-140)		
MSD_201311010206	Propazine	ND	100	111	ng/L	111	(60-140)	40	7.0
LCS1	Quinoline		100	97.4	ng/L	97	(60-140)		
LCS2	Quinoline		100	98.1	ng/L	98	(60-140)	30	0.72
MBLK	Quinoline			<5	ng/L				
MRL_CHK	Quinoline		5.0	4.91	ng/L	98	(50-150)		
MS_201311010206	Quinoline	ND	100	104	ng/L	99	(60-140)		
MSD_201311010206	Quinoline	ND	100	89.1	ng/L	85	(60-140)	40	15
LCS1	Simazine		100	79.3	ng/L	79	(60-140)		
LCS2	Simazine		100	94.4	ng/L	94	(60-140)	30	17
MBLK	Simazine			<5	ng/L				
MRL_CHK	Simazine		5.0	4.38	ng/L	88	(50-150)		
MS_201311010206	Simazine	ND	100	93.8	ng/L	94	(60-140)		
MSD_201311010206	Simazine	ND	100	88.8	ng/L	89	(60-140)	40	5.5
LCS1	Sulfachloropyridazine		100	111	ng/L	111	(60-140)		
LCS2	Sulfachloropyridazine		100	106	ng/L	106	(60-140)	30	4.6
MBLK	Sulfachloropyridazine			<5	ng/L				
MRL_CHK	Sulfachloropyridazine		5.0	4.92	ng/L	98	(50-150)		
MS_201311010206	Sulfachloropyridazine	ND	100	220	ng/L	220	(60-140)		
MSD_201311010206	Sulfachloropyridazine	ND	100	211	ng/L	211	(60-140)	40	4.2
LCS1	Sulfadiazine		100	103	ng/L	103	(60-140)		
LCS2	Sulfadiazine		100	98.4	ng/L	99	(60-140)	30	4.5
MBLK	Sulfadiazine			<5	ng/L				
MRL_CHK	Sulfadiazine		5.0	3.74	ng/L	75	(50-150)		
MS_201311010206	Sulfadiazine	ND	100	101	ng/L	100	(60-140)		
MSD_201311010206	Sulfadiazine	ND	100	94.4	ng/L	94	(60-140)	40	6.7
LCS1	Sulfadimethoxine		100	113	ng/L	113	(60-140)		
LCS2	Sulfadimethoxine		100	124	ng/L	124	(60-140)	30	9.3
MBLK	Sulfadimethoxine			<5	ng/L				
MRL_CHK	Sulfadimethoxine		5.0	4.35	ng/L	87	(50-150)		
MS_201311010206	Sulfadimethoxine	ND	100	124	ng/L	124	(60-140)		
MSD_201311010206	Sulfadimethoxine	ND	100	123	ng/L	123	(60-140)	40	0.81
LCS1	Sulfamerazine		100	76.6	ng/L	77	(60-140)		
LCS2	Sulfamerazine		100	83.1	ng/L	83	(60-140)	30	8.1

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Sulfamerazine			<5	ng/L				
MRL_CHK	Sulfamerazine		5.0	4.66	ng/L	93	(50-150)		
MS_201311010206	Sulfamerazine	ND	100	23.6	ng/L	<u>23</u>	(60-140)		
MSD_201311010206	Sulfamerazine	ND	100	26.9	ng/L	<u>27</u>	(60-140)	40	13
LCS1	Sulfamethazine		100	97.3	ng/L	97	(60-140)		
LCS2	Sulfamethazine		100	139	ng/L	139	(60-140)	30	<u>35</u>
MBLK	Sulfamethazine			<5	ng/L				
MRL_CHK	Sulfamethazine		5.0	4.16	ng/L	83	(50-150)		
MS_201311010206	Sulfamethazine	ND	100	43.2	ng/L	<u>43</u>	(60-140)		
MSD_201311010206	Sulfamethazine	ND	100	42.0	ng/L	<u>42</u>	(60-140)	40	2.8
LCS1	Sulfamethizole		100	84.6	ng/L	85	(60-140)		
LCS2	Sulfamethizole		100	96.7	ng/L	97	(60-140)	30	13
MBLK	Sulfamethizole			<5	ng/L				
MRL_CHK	Sulfamethizole		5.0	3.73	ng/L	75	(50-150)		
MS_201311010206	Sulfamethizole	ND	100	128	ng/L	127	(60-140)		
MSD_201311010206	Sulfamethizole	ND	100	125	ng/L	125	(60-140)	40	2.4
LCS1	Sulfamethoxazole		100	92.8	ng/L	93	(70-130)		
LCS2	Sulfamethoxazole		100	93.4	ng/L	93	(70-130)	30	0.54
MBLK	Sulfamethoxazole			<5	ng/L				
MRL_CHK	Sulfamethoxazole		5.0	4.26	ng/L	85	(50-150)		
MS_201311010206	Sulfamethoxazole	ND	100	88.8	ng/L	88	(60-140)		
MSD_201311010206	Sulfamethoxazole	ND	100	80.8	ng/L	80	(60-140)	40	9.4
LCS1	Sulfathiazole		100	85.5	ng/L	86	(60-140)		
LCS2	Sulfathiazole		100	95.3	ng/L	95	(60-140)	30	11
MBLK	Sulfathiazole			<5	ng/L				
MRL_CHK	Sulfathiazole		5.0	3.80	ng/L	76	(50-150)		
MS_201311010206	Sulfathiazole	ND	100	138	ng/L	135	(60-140)		
MSD_201311010206	Sulfathiazole	ND	100	128	ng/L	126	(60-140)	40	7.5
LCS1	TCEP		100	92.6	ng/L	93	(60-140)		
LCS2	TCEP		100	106	ng/L	106	(60-140)	30	14
MBLK	TCEP			<10	ng/L				
MRL_CHK	TCEP		5.0	4.30	ng/L	86	(50-150)		
MS_201311010206	TCEP	20	100	111	ng/L	91	(60-140)		
MSD_201311010206	TCEP	20	100	100	ng/L	80	(60-140)	40	10
LCS1	TCPP		100	108	ng/L	108	(40-160)		
LCS2	TCPP		100	114	ng/L	114	(40-160)	30	5.4
MBLK	TCPP			<100	ng/L				
MRL_CHK	TCPP		5.0	5.80	ng/L	116	(40-160)		

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201311010206	TCCP	ND	100	134	ng/L	109	(40-160)		
MSD_201311010206	TCCP	ND	100	130	ng/L	104	(40-160)	60	3.0
LCS1	TDCPP		400	416	ng/L	104	(40-160)		
LCS2	TDCPP		400	427	ng/L	107	(40-160)	30	2.6
MBLK	TDCPP			<100	ng/L				
MRL_CHK	TDCPP		20	19.3	ng/L	97	(40-160)		
MS_201311010206	TDCPP	ND	400	473	ng/L	114	(40-160)		
MSD_201311010206	TDCPP	ND	400	475	ng/L	115	(40-160)	60	0.42
LCS1	Testosterone		100	86.8	ng/L	87	(60-140)		
LCS2	Testosterone		100	87.3	ng/L	87	(60-140)	30	0.57
MBLK	Testosterone			<5	ng/L				
MRL_CHK	Testosterone		5.0	3.77	ng/L	75	(50-150)		
MS_201311010206	Testosterone	ND	100	99.7	ng/L	99	(60-140)		
MSD_201311010206	Testosterone	ND	100	96.1	ng/L	96	(60-140)	40	3.7
LCS1	Theobromine		100	98.2	ng/L	98	(60-140)		
LCS2	Theobromine		100	106	ng/L	106	(60-140)	30	7.5
MBLK	Theobromine			<5	ng/L				
MRL_CHK	Theobromine		5.0	5.74	ng/L	115	(50-150)		
MS_201311010206	Theobromine	ND	100	120	ng/L	120	(60-140)		
MSD_201311010206	Theobromine	ND	100	120	ng/L	120	(60-140)	40	0.0
LCS1	Theophylline		200	216	ng/L	108	(60-140)		
LCS2	Theophylline		200	200	ng/L	100	(60-140)	30	7.7
MBLK	Theophylline			<10	ng/L				
MRL_CHK	Theophylline		10	8.30	ng/L	83	(50-150)		
MS_201311010206	Theophylline	21	200	128	ng/L	<u>54</u>	(60-140)		
MSD_201311010206	Theophylline	21	200	146	ng/L	62	(60-140)	40	13
LCS1	Trimethoprim		100	94.1	ng/L	94	(60-140)		
LCS2	Trimethoprim		100	97.7	ng/L	98	(60-140)	30	3.8
MBLK	Trimethoprim			<5	ng/L				
MRL_CHK	Trimethoprim		5.0	5.28	ng/L	106	(50-150)		
MS_201311010206	Trimethoprim	ND	100	122	ng/L	120	(60-140)		
MSD_201311010206	Trimethoprim	ND	100	100	ng/L	98	(60-140)	40	20

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Analysis Date: 11/25/2013

LCS1	2,4-D		100	89.9	ng/L	90	(60-140)		
LCS2	2,4-D		100	94.9	ng/L	95	(60-140)	40	5.4
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	4.06	ng/L	81	(50-150)		
MS_201311070422	2,4-D	ND	100	146	ng/L	<u>146</u>	(60-140)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201311070422	2,4-D	ND	100	147	ng/L	<u>147</u>	(60-140)	40	0.0
LCS1	4-nonylphenol - semi quantitative		200	245	ng/L	122	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	248	ng/L	124	(60-140)	40	1.2
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	11.6	ng/L	117	(50-150)		
MS_201311070422	4-nonylphenol - semi quantitative	ND	200	317	ng/L	<u>159</u>	(60-140)		
MSD_201311070422	4-nonylphenol - semi quantitative	ND	200	312	ng/L	<u>156</u>	(60-140)	40	1.6
LCS1	4-tert-octylphenol		100	106	ng/L	106	(60-140)		
LCS2	4-tert-octylphenol		100	109	ng/L	109	(60-140)	40	2.8
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	6.68	ng/L	134	(50-150)		
MS_201311070422	4-tert-octylphenol	ND	100	129	ng/L	126	(60-140)		
MSD_201311070422	4-tert-octylphenol	ND	100	122	ng/L	119	(60-140)	40	5.6
LCS1	Acesulfame-K		400	428	ng/L	107	(60-140)		
LCS2	Acesulfame-K		400	428	ng/L	107	(60-140)	40	0.0
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	25.3	ng/L	126	(50-150)		
MS_201311070422	Acesulfame-K	ND	400	472	ng/L	118	(60-140)		
MSD_201311070422	Acesulfame-K	ND	400	455	ng/L	113	(60-140)	40	3.7
LCS1	Bendroflumethiazide		100	96.6	ng/L	97	(60-140)		
LCS2	Bendroflumethiazide		100	97.0	ng/L	97	(60-140)	40	0.41
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	4.50	ng/L	90	(50-150)		
MS_201311070422	Bendroflumethiazide	ND	100	106	ng/L	105	(60-140)		
MSD_201311070422	Bendroflumethiazide	ND	100	93.6	ng/L	93	(60-140)	40	12
LCS1	BPA		100	101	ng/L	101	(60-140)		
LCS2	BPA		100	93.2	ng/L	93	(60-140)	40	8.0
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	5.04	ng/L	101	(50-150)		
MS_201311070422	BPA	ND	100	68.3	ng/L	68	(60-140)		
MSD_201311070422	BPA	ND	100	71.2	ng/L	71	(60-140)	40	4.2
LCS1	Butalbital		100	85.0	ng/L	85	(60-140)		
LCS2	Butalbital		100	102	ng/L	102	(60-140)	40	18
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	5.30	ng/L	106	(50-150)		
MS_201311070422	Butalbital	ND	100	113	ng/L	112	(60-140)		
MSD_201311070422	Butalbital	ND	100	110	ng/L	109	(60-140)	40	2.7
LCS1	Butylparben		100	95.6	ng/L	96	(60-140)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Butylparben		100	96.8	ng/L	97	(60-140)	40	1.1
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	4.22	ng/L	84	(50-150)		
MS_201311070422	Butylparben	ND	100	133	ng/L	133	(60-140)		
MSD_201311070422	Butylparben	ND	100	108	ng/L	107	(60-140)	40	21
LCS1	Chloramphenicol		100	133	ng/L	133	(60-140)		
LCS2	Chloramphenicol		100	124	ng/L	124	(60-140)	40	7.0
MBLK	Chloramphenicol			<10	ng/L				
MRL_CHK	Chloramphenicol		5.0	4.28	ng/L	86	(50-150)		
MS_201311070422	Chloramphenicol	ND	100	58.0	ng/L	<u>58</u>	(60-140)		
MSD_201311070422	Chloramphenicol	ND	100	56.0	ng/L	<u>56</u>	(60-140)	40	3.5
LCS1	Clofibric Acid		100	97.9	ng/L	98	(60-140)		
LCS2	Clofibric Acid		100	118	ng/L	118	(60-140)	40	19
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	4.93	ng/L	99	(50-150)		
MS_201311070422	Clofibric Acid	ND	100	123	ng/L	123	(60-140)		
MSD_201311070422	Clofibric Acid	ND	100	102	ng/L	102	(60-140)	40	19
LCS1	Diclofenac		100	110	ng/L	110	(60-140)		
LCS2	Diclofenac		100	98.1	ng/L	98	(60-140)	40	11
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	5.24	ng/L	105	(50-150)		
MS_201311070422	Diclofenac	ND	100	81.9	ng/L	82	(60-140)		
MSD_201311070422	Diclofenac	ND	100	70.1	ng/L	70	(60-140)	40	16
LCS1	Estradiol		100	116	ng/L	117	(60-140)		
LCS2	Estradiol		100	98.5	ng/L	99	(60-140)	40	17
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	7.12	ng/L	142	(50-150)		
MS_201311070422	Estradiol	ND	100	101	ng/L	100	(60-140)		
MSD_201311070422	Estradiol	ND	100	90.3	ng/L	89	(60-140)	40	11
LCS1	Estrone		100	92.2	ng/L	92	(60-140)		
LCS2	Estrone		100	94.3	ng/L	94	(60-140)	40	2.3
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	4.76	ng/L	95	(50-150)		
MS_201311070422	Estrone	ND	100	106	ng/L	105	(60-140)		
MSD_201311070422	Estrone	ND	100	93.1	ng/L	92	(60-140)	40	13
LCS1	Ethinyl Estradiol - 17 alpha		100	85.7	ng/L	86	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	99.6	ng/L	100	(60-140)	40	15
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	4.00	ng/L	80	(50-150)		
MS_201311070422	Ethinyl Estradiol - 17 alpha	ND	100	107	ng/L	107	(60-140)		
MSD_201311070422	Ethinyl Estradiol - 17 alpha	ND	100	111	ng/L	111	(60-140)	40	3.7
LCS1	Ethylparaben		400	393	ng/L	98	(60-140)		
LCS2	Ethylparaben		400	375	ng/L	94	(60-140)	40	4.7
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	14.8	ng/L	74	(50-150)		
MS_201311070422	Ethylparaben	ND	400	558	ng/L	139	(60-140)		
MSD_201311070422	Ethylparaben	ND	400	494	ng/L	123	(60-140)	40	12
LCS1	Gemfibrozil		100	95.9	ng/L	96	(60-140)		
LCS2	Gemfibrozil		100	108	ng/L	108	(60-140)	40	12
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	4.90	ng/L	98	(50-150)		
MS_201311070422	Gemfibrozil	ND	100	108	ng/L	107	(60-140)		
MSD_201311070422	Gemfibrozil	ND	100	106	ng/L	106	(60-140)	40	1.9
LCS1	Ibuprofen		200	186	ng/L	93	(60-140)		
LCS2	Ibuprofen		200	189	ng/L	95	(60-140)	40	1.6
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	10.0	ng/L	101	(50-150)		
MS_201311070422	Ibuprofen	ND	200	170	ng/L	85	(60-140)		
MSD_201311070422	Ibuprofen	ND	200	169	ng/L	84	(60-140)	40	0.59
LCS1	Iohexal		200	225	ng/L	112	(60-140)		
LCS2	Iohexal		200	210	ng/L	105	(60-140)	40	6.9
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	10.9	ng/L	109	(50-150)		
MS_201311070422	Iohexal	ND	200	208	ng/L	104	(50-150)		
MSD_201311070422	Iohexal	ND	200	223	ng/L	112	(50-150)	50	6.5
LCS1	Iopromide		100	85.8	ng/L	86	(60-140)		
LCS2	Iopromide		100	90.8	ng/L	91	(60-140)	40	5.8
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	4.12	ng/L	82	(50-150)		
MS_201311070422	Iopromide	ND	100	110	ng/L	110	(50-150)		
MSD_201311070422	Iopromide	ND	100	108	ng/L	108	(50-150)	50	1.8
LCS1	Isobutylparaben		100	88.6	ng/L	89	(60-140)		
LCS2	Isobutylparaben		100	86.4	ng/L	86	(60-140)	40	2.5
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	4.51	ng/L	90	(50-150)		
MS_201311070422	Isobutylparaben	ND	100	115	ng/L	114	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201311070422	Isobutylparaben	ND	100	102	ng/L	101	(60-140)	40	12
LCS1	Methylparaben		400	370	ng/L	93	(60-140)		
LCS2	Methylparaben		400	359	ng/L	90	(60-140)	40	3.0
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	17.2	ng/L	86	(50-150)		
MS_201311070422	Methylparaben	ND	400	535	ng/L	130	(60-140)		
MSD_201311070422	Methylparaben	ND	400	410	ng/L	99	(60-140)	40	27
LCS1	Naproxen		200	188	ng/L	94	(60-140)		
LCS2	Naproxen		200	190	ng/L	95	(60-140)	40	0.53
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	7.56	ng/L	76	(50-150)		
MS_201311070422	Naproxen	ND	200	208	ng/L	103	(60-140)		
MSD_201311070422	Naproxen	ND	200	213	ng/L	106	(60-140)	40	2.4
LCS1	Propylparaben		100	95.9	ng/L	96	(60-140)		
LCS2	Propylparaben		100	97.5	ng/L	98	(60-140)	40	1.6
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	5.48	ng/L	110	(50-150)		
MS_201311070422	Propylparaben	12	100	135	ng/L	124	(60-140)		
MSD_201311070422	Propylparaben	12	100	124	ng/L	113	(60-140)	40	7.7
LCS1	Sucralose		2000	2070	ng/L	103	(60-140)		
LCS2	Sucralose		2000	1990	ng/L	100	(60-140)	40	3.9
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	106	ng/L	106	(50-150)		
MS_201311070422	Sucralose	ND	2000	2210	ng/L	110	(60-140)		
MSD_201311070422	Sucralose	ND	2000	2310	ng/L	115	(60-140)	40	4.4
LCS1	Triclocarban		100	75.4	ng/L	75	(60-140)		
LCS2	Triclocarban		100	65.0	ng/L	65	(60-140)	40	15
MBLK	Triclocarban			<5	ng/L				
MRL_CHK	Triclocarban		5.0	7.20	ng/L	144	(50-150)		
MS_201311070422	Triclocarban	ND	100	86.3	ng/L	86	(60-140)		
MSD_201311070422	Triclocarban	ND	100	64.3	ng/L	64	(60-140)	40	29
LCS1	Triclosan		200	180	ng/L	90	(60-140)		
LCS2	Triclosan		200	149	ng/L	75	(60-140)	40	19
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	10.4	ng/L	104	(50-150)		
MS_201311070422	Triclosan	ND	200	159	ng/L	80	(60-140)		
MSD_201311070422	Triclosan	ND	200	152	ng/L	76	(60-140)	40	4.5
LCS1	Warfarin		100	106	ng/L	106	(60-140)		

Spike recovery is already corrected for native results.

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Warfarin		100	112	ng/L	112	(60-140)	40	5.5
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	4.54	ng/L	91	(50-150)		
MS_201311070422	Warfarin	ND	100	123	ng/L	122	(60-140)		
MSD_201311070422	Warfarin	ND	100	106	ng/L	105	(60-140)	40	15

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

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AT-1807

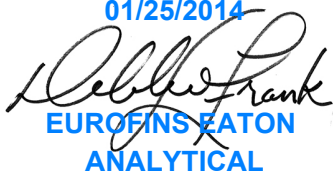
Laboratory Report

for

Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attention: Brad Jeppson
Fax: 602-265-1422

Date of Issue

01/25/2014



EUROFINS EATON
ANALYTICAL

DEB: Debbie.L.Frank
Project Manager

Report: 463276
Project: SEDONA-AZ
Group: SEDONA-WRP CEC
Study

* Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted under the individual analysis.

* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,

Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

* Test results relate only to the sample(s) tested.

* This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2012-1
California – NELAP *	01114CA	New Hampshire *	2959
California-Monrovia-ELAP	2813	New Jersey *	CA 008
Los Angeles County Sanitation Districts	10264	New Mexico	Certified
Colorado	Certified	New York *	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida *	E871024	Oregon *	CA 200003-011
Georgia	947	Pennsylvania *	68-565
Guam	13-004r	Rhode Island	LAO00326
Hawaii	Certified	South Carolina	87016001
Idaho	Certified	South Dakota	Certified
Illinois *	200033	Tennessee	TN02839
Indiana	C-CA-01	Texas *	T104704230-13-5
Kansas *	E-10268	Utah *	CA000062013
Kentucky	90107	Vermont	VT0114
Louisiana *	LA130008	Virginia *	00210
Maine	CA0006	Washington	C838
Maryland	224	West Virginia	9943 C
Commonwealth of Northern Marianas Is.	MP0004	Wisconsin	998316660
Massachusetts	M-CA006	Wyoming	8TMS-L
Michigan	9906	EPA Region 5	Certified
California-Colton- ELAP	2812	California-Folsom- ELAP	2820

* NELAP/TNI Recognized Accreditation Bodies

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/ Combined Residual	SM 4500-CI G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli (MTF/EC+MUG)		x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DCBP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221 C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-S ⁻ D			x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

Acknowledgement of Samples Received

Addr: **Carollo**
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Client ID: CAROLLO
 Folder #: 463276
 Project: SEDONA-AZ
 Sample Group: SEDONA-WRP CEC Study

Attn: Brad Jeppson
 Phone: 602-474-4132

Project Manager: Debbie.L.Frank
 Phone: (626) 386-1149

The following samples were received from you on **January 04, 2014**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201401040005	POC Well	01/03/2014 1105
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201401040006	Field Blank (for lab QA/QC)	01/03/2014 1145
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201401040007	Class A+ Reclaimed Water (Injectate)	01/03/2014 1150
	@DX_ABI_NEG @DX_ABI_POS @ML521_SPE8	
201401040008	RUSH HPLC GRADE DI 1/3/14	01/03/2014 0000
	Deionized Water	

Test Description

- @DX_ABI_NEG -- Endocrine Disruptors Negative Mode - SPE
- @DX_ABI_POS -- Endocrine Disruptors Positive Mode - SPE
- @ML521_SPE8 -- Nitrosamines by GCMS



Eaton Analytical
formerly MWH Laboratories

750 Royal Oaks Drive, Suite 100
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(626) 386-1100 FAX (626) 386-1101

Kit Order for Carollo Engineers

Debbie.L.Frank is your Eurofins Eaton Analytical Project Manager

Note: Sampler Please return this paper with your samples

Kit #: 73263
Created By: ADT
Order Date: 07/30/2013
Ship By: 07/20/2013
STG: Bottle Orders

Client ID: CAROLLO
Project Code: SEDONA-AZ Bottle Orders
Group Name: SEDONA-WRP CEC Study
PO#/JOB#:

Ship Sample Kits to
Sedona Wastewater Reclamation Plant
19655 W State Route 89A
Sedona, AZ 86336
Attn: Kelly Parlin, Chief Chemist
Phone: 928-203-5029

Send Report to
Carollo
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034
Attn: Brad Jeppson
Phone: 602-474-4132
Fax: 602-265-1422

Billing Address
Carollo Engineers
4600 East Washington Street, Suite 500
Phoenix, AZ 85034
Attr: Accounts Payable

of **Samples Tests** **Bottles - Qty for each sample, type & preservative if ai** **UN DOT #**

10 @DX_ABI_NEG,@DX_ABI_POS 2 40ml amber glass vial 80ul 32g/l NaOmadine + 5mg AA

10 @ML521_SPE8 2 1L amber glass 80-100mg Sodium Thiosulfate

Comments

Include sampling instruction

Code Status Date Shipped Via Tracking # # of Coolers Prepared By

750 Royal Oaks Drive, Suite 100
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1 800 566 LABS (1 800 566 5227)

Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Flags Legend:

B1 - Target analyte detected in method blank at or above the method reporting limit.

BF - Target analyte detected in method blank is at or above the method acceptance limits, but below the method reporting limit (MRL) and analyte not present in the sample.

LE - MRL Check recovery was above laboratory acceptance limits.

MC - Matrix spike recovery was high; the associated blank spike recovery was acceptable. MS/MSD RPD met acceptance criteria.

MD - Matrix spike recovery was low; the associated blank spike recovery was acceptable. MS/MSD RPD met acceptance criteria.

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Samples Received on:
01/04/2014

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		201401040005				
		<u>POC Well</u>				
01/15/2014 04:28	Acesulfame-K		210		ng/L	20
01/15/2014 04:28	BPA		730		ng/L	10
		201401040007				
		<u>Class A+ Reclaimed Water (Injectate)</u>				
01/15/2014 22:18	Acesulfame-K		440		ng/L	20
01/08/2014 03:54	Acetaminophen		15		ng/L	5
01/08/2014 03:54	Albuterol		14		ng/L	5
01/08/2014 03:54	Amoxicillin (semi-quantitative)		560		ng/L	20
01/08/2014 03:54	Atenolol		49		ng/L	5
01/15/2014 22:18	Butalbital		65		ng/L	5
01/08/2014 03:54	Caffeine		70		ng/L	5
01/08/2014 03:54	Carbamazepine		170		ng/L	5
01/08/2014 03:54	Carisoprodol		180		ng/L	5
01/08/2014 03:54	Cotinine		20		ng/L	10
01/08/2014 03:54	DEET		34		ng/L	10
01/08/2014 03:54	Dehydronifedipine		62		ng/L	5
01/08/2014 03:54	Dilantin		62		ng/L	20
01/08/2014 03:54	Diltiazem		12		ng/L	5
01/08/2014 03:54	Diuron		46		ng/L	5
01/08/2014 03:54	Fluoxetine		23		ng/L	10
01/15/2014 22:18	Gemfibrozil		34		ng/L	5
01/08/2014 03:54	Lidocaine		110		ng/L	5
01/08/2014 03:54	Lopressor		250		ng/L	20
01/08/2014 03:54	Meprobamate		100		ng/L	5
01/15/2014 22:18	Naproxen		13		ng/L	10
01/21/2014 00:31	N-Nitrosodibutylamine (NDBA)		2.1		ng/L	2
01/21/2014 00:31	N-Nitroso-dimethylamine (NDMA)		6.1		ng/L	2
01/21/2014 00:31	N-Nitrosodi-n-propylamine (NDPA)		3.9		ng/L	2
01/08/2014 03:54	Primidone		160		ng/L	5
01/15/2014 22:18	Sucralose		47000		ng/L	1000
01/08/2014 03:54	Sulfadiazine		9.8		ng/L	5
01/08/2014 03:54	Sulfamethoxazole		560		ng/L	5
01/08/2014 03:54	Sulfathiazole		10		ng/L	5
01/08/2014 03:54	TCEP		170		ng/L	10
01/08/2014 03:54	T CPP		210		ng/L	100
01/08/2014 03:54	TDCPP		120		ng/L	100

SUMMARY OF POSITIVE DATA ONLY

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Hits
Report: 463276

Carollo
Brad Jeppson
Carollo Engineers, Inc
4600 E Washington St, Suite 500
Phoenix, AZ 85034

Samples Received on:
01/04/2014

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
01/08/2014 03:54	Theophylline		110		ng/L	20
01/08/2014 03:54	Trimethoprim		43		ng/L	5

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Laboratory Data
 Report: 463276

Carollo
 Brad Jeppson
 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
POC Well (201401040005)					Sampled on 01/03/2014 1105			
EPA 521 - Nitrosamines by GCMS								
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND (BF)	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
1/9/2014	01/13/2014	21:54 746091	(EPA 521)	NDMA-D6	74	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	01/08/2014	03:33 744831	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Azithromycin	ND (R7)	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	DACT	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	DEA	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	DEET	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	DIA	ND	ng/L	5	1

Rounding on totals after summation.
 (c) - indicates calculated results

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Laboratory Data
 Report: 463276

Carollo

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 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	01/08/2014	03:33 744831	(LC-MS-MS)	Diazepam	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Dilantin	ND	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Diltiazem	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Diuron	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Fluoxetine	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Lidocaine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Lopressor	ND	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Meprobamate	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Primidone	ND (R7)	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfadiazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfamethoxazole	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Sulfathiazole	ND	ng/L	5	1

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 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
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Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	01/08/2014	03:33 744831	(LC-MS-MS)	TCEP	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	TCPP	ND	ng/L	100	1
	01/08/2014	03:33 744831	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	01/08/2014	03:33 744831	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	01/15/2014	04:28 744868	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	01/15/2014	04:28 744868	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Acesulfame-K	210	ng/L	20	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	BPA	730	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Iohexal	ND	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	01/15/2014	04:28 744868	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

Field Blank (for lab QA/QC) (201401040006)

Sampled on 01/03/2014 1145

Rounding on totals after summation.
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 Report: 463276

Carollo

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 Carollo Engineers, Inc
 4600 E Washington St, Suite 500
 Phoenix, AZ 85034

Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
EPA 521 - Nitrosamines by GCMS								
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosodibutylamine (NDBA)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	ND (BF)	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
1/9/2014	01/13/2014	22:40 746091	(EPA 521)	NDMA-D6	71	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	01/07/2014	22:06 744831	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Acetaminophen	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Albuterol	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Amoxicillin (semi-quantitative)	ND	ng/L	20	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Atenolol	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Azithromycin	ND (R7)	ng/L	20	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Caffeine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Carbamazepine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Carisoprodol	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Cotinine	ND	ng/L	10	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	DACT	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	DEA	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	DEET	ND	ng/L	10	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Dehydronifedipine	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	DIA	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Diazepam	ND	ng/L	5	1

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Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	01/07/2014	22:06	744831	(LC-MS-MS)	Dilantin	ND	20	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Diitiazem	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Diuron	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Erythromycin	ND	10	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Flumequine	ND	10	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Fluoxetine	ND	10	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Isoproturon	ND	100	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Ketoprofen	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Ketorolac	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Lidocaine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Lincomycin	ND	10	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Linuron	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Lopressor	ND	20	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Meclofenamic Acid	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Meprobamate	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Metazachlor	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Metolachlor	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Nifedipine	ND	20	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Norethisterone	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Oxolinic acid	ND	10	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Pentoxifylline	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Phenazone	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Primidone	ND (R7)	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Progesterone	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Propazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Quinoline	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Simazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfachloropyridazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfadiazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfadimethoxine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfamerazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfamethazine	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfamethizole	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfamethoxazole	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	Sulfathiazole	ND	5	1
	01/07/2014	22:06	744831	(LC-MS-MS)	TCEP	ND	10	1

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Laboratory Data
 Report: 463276

Carollo

Brad Jeppson
 Carollo Engineers, Inc
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 Phoenix, AZ 85034

Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
	01/07/2014	22:06 744831	(LC-MS-MS)	T CPP	ND	ng/L	100	1
	01/07/2014	22:06 744831	(LC-MS-MS)	TDCPP	ND	ng/L	100	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Theophylline	ND	ng/L	20	1
	01/07/2014	22:06 744831	(LC-MS-MS)	Trimethoprim	ND	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE								
	01/15/2014	21:59 746391	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND	ng/L	100	1
	01/15/2014	21:59 746391	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Acesulfame-K	ND	ng/L	20	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Bendroflumethiazide	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	BPA	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Butalbital	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Gemfibrozil	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	lohexal	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Naproxen	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Sucralose	ND	ng/L	100	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	01/15/2014	21:59 746391	(LC-MS-MS)	Warfarin	ND	ng/L	5	1

Class A+ Reclaimed Water (Injectate) (201401040007)

Sampled on 01/03/2014 1150

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Samples Received on:
 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
EPA 521 - Nitrosamines by GCMS								
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosodibutylamine (NDBA)	2.1 (B1,LE)	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosodiethylamine (NDEA)	ND	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitroso-dimethylamine (NDMA)	6.1	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosodi-n-propylamine (NDPA)	3.9	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosomethylethylamine (NMEA)	ND	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosomorpholine	ND	ng/l	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosopiperidine (NPIP)	ND	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	N-Nitrosopyrrolidine (NPYR)	ND	ng/L	2	1
1/16/2014	01/21/2014	00:31 747448	(EPA 521)	NDMA-D6	90	%		1
LC-MS-MS - Endocrine Disruptors Positive Mode - SPE								
	01/08/2014	03:54 744831	(LC-MS-MS)	1,7-Dimethylxanthine	ND	ng/L	10	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Acetaminophen	15	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Albuterol	14	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Amoxicillin (semi-quantitative)	560	ng/L	20	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Androstenedione	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Atenolol	49	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Atrazine	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Azithromycin	ND (R7)	ng/L	20	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Bezafibrate	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Bromacil	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Caffeine	70	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Carbadox	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Carbamazepine	170	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Carisoprodol	180	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Chloridazon	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Chlorotoluron	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Cimetidine	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Cotinine	20	ng/L	10	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Cyanazine	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	DACT	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	DEA	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	DEET	34	ng/L	10	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Dehydronifedipine	62	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	DIA	ND	ng/L	5	1
	01/08/2014	03:54 744831	(LC-MS-MS)	Diazepam	ND	ng/L	5	1

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 01/04/2014

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	01/08/2014	03:54	744831	(LC-MS-MS)	Dilantin	62	ng/L	20	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Diltiazem	12	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Diuron	46	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Erythromycin	ND	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Flumequine	ND	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Fluoxetine	23	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Isoproturon	ND	ng/L	100	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Ketoprofen	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Ketorolac	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Lidocaine	110	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Lincomycin	ND	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Linuron	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Lopressor	250	ng/L	20	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Meclofenamic Acid	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Meprobamate	100	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Metazachlor	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Metolachlor	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Nifedipine	ND	ng/L	20	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Norethisterone	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Oxolinic acid	ND	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Pentoxifylline	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Phenazone	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Primidone	160 (R7)	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Progesterone	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Propazine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Quinoline	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Simazine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfachloropyridazine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfadiazine	9.8	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfadimethoxine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfamerazine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfamethazine	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfamethizole	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfamethoxazole	560	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Sulfathiazole	10	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	TCEP	170	ng/L	10	1

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Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
	01/08/2014	03:54	744831	(LC-MS-MS)	T CPP	210	ng/L	100	1
	01/08/2014	03:54	744831	(LC-MS-MS)	TDCPP	120	ng/L	100	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Testosterone	ND	ng/L	5	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Theobromine	ND	ng/L	10	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Theophylline	110	ng/L	20	1
	01/08/2014	03:54	744831	(LC-MS-MS)	Trimethoprim	43	ng/L	5	1
LC-MS-MS - Endocrine Disruptors Negative Mode - SPE									
	01/15/2014	22:18	746391	(LC-MS-MS)	2,4-D	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	4-nonylphenol - semi quantitative	ND (MC)	ng/L	100	1
	01/15/2014	22:18	746391	(LC-MS-MS)	4-tert-Octylphenol	ND	ng/L	50	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Acesulfame-K	440	ng/L	20	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Bendroflumethiazide	ND (MD)	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	BPA	ND	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Butalbital	65	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Butylparaben	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Chloramphenicol	ND	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Clofibric Acid	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Diclofenac	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Estradiol	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Estrone	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Ethinyl Estradiol - 17 alpha	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Ethylparaben	ND	ng/L	20	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Gemfibrozil	34	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Ibuprofen	ND	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	lohexal	ND	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Iopromide	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Isobutylparaben	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Methylparaben	ND	ng/L	20	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Naproxen	13	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Propylparaben	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Sucralose	47000 (MD)	ng/L	1000	10
	01/15/2014	22:18	746391	(LC-MS-MS)	Triclocarban	ND	ng/L	5	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Triclosan	ND	ng/L	10	1
	01/15/2014	22:18	746391	(LC-MS-MS)	Warfarin	ND (MD)	ng/L	5	1

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QC Ref # 744831 - Endocrine Disruptors Positive Mode - SPE

201401040005 POC Well
201401040006 Field Blank (for lab QA/QC)
201401040007 Class A+ Reclaimed Water (Injectate)

Analysis Date: 01/08/2014

Analyzed by: ARH
Analyzed by: ARH
Analyzed by: ARH

QC Ref # 744868 - Endocrine Disruptors Negative Mode - SPE

201401040005 POC Well

Analysis Date: 01/15/2014

Analyzed by: ARH

QC Ref # 746091 - Nitrosamines by GCMS

201401040005 POC Well
201401040006 Field Blank (for lab QA/QC)

Analysis Date: 01/13/2014

Analyzed by: KDT
Analyzed by: KDT

QC Ref # 746391 - Endocrine Disruptors Negative Mode - SPE

201401040006 Field Blank (for lab QA/QC)
201401040007 Class A+ Reclaimed Water (Injectate)

Analysis Date: 01/15/2014

Analyzed by: ARH
Analyzed by: ARH

QC Ref # 747448 - Nitrosamines by GCMS

201401040007 Class A+ Reclaimed Water (Injectate)

Analysis Date: 01/21/2014

Analyzed by: KDT

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 744831 - Endocrine Disruptors Positive Mode - SPE by LC-MS-MS						Analysis Date: 01/07/2014			
LCS1	1,7-Dimethylxanthine		100	92.9	ng/L	93	(60-140)		
LCS2	1,7-Dimethylxanthine		100	91.8	ng/L	92	(60-140)	30	1.2
MBLK	1,7-Dimethylxanthine			<5	ng/L				
MRL_CHK	1,7-Dimethylxanthine		5.0	4.43	ng/L	89	(50-150)		
MS_201312210055	1,7-Dimethylxanthine	ND	100	83.9	ng/L	84	(60-140)		
MSD_201312210055	1,7-Dimethylxanthine	ND	100	83.4	ng/L	83	(60-140)	40	0.60
LCS1	Acetaminophen		100	115	ng/L	115	(60-140)		
LCS2	Acetaminophen		100	100	ng/L	100	(60-140)	30	14
MBLK	Acetaminophen			<5	ng/L				
MRL_CHK	Acetaminophen		5.0	4.34	ng/L	87	(50-150)		
MS_201312210055	Acetaminophen	ND	100	106	ng/L	106	(60-140)		
MSD_201312210055	Acetaminophen	ND	100	99.2	ng/L	99	(60-140)	40	6.6
LCS1	Albuterol		100	93.2	ng/L	93	(60-140)		
LCS2	Albuterol		100	96.9	ng/L	97	(60-140)	30	3.9
MBLK	Albuterol			<5	ng/L				
MRL_CHK	Albuterol		5.0	4.48	ng/L	90	(50-150)		
MS_201312210055	Albuterol	ND	100	122	ng/L	122	(60-140)		
MSD_201312210055	Albuterol	ND	100	114	ng/L	114	(60-140)	40	7.6
LCS1	Amoxicillin (semi-quantitative)		400	396	ng/L	99	(60-140)		
LCS2	Amoxicillin (semi-quantitative)		400	408	ng/L	102	(60-140)	30	3.0
MBLK	Amoxicillin (semi-quantitative)			<20	ng/L				
MRL_CHK	Amoxicillin (semi-quantitative)		20	20.0	ng/L	100	(50-150)		
MS_201312210055	Amoxicillin (semi-quantitative)	ND	400	295	ng/L	74	(60-140)		
MSD_201312210055	Amoxicillin (semi-quantitative)	ND	400	304	ng/L	76	(60-140)	40	3.0
LCS1	Androstenedione		100	91.0	ng/L	91	(60-140)		
LCS2	Androstenedione		100	97.6	ng/L	98	(60-140)	30	7.0
MBLK	Androstenedione			<5	ng/L				
MRL_CHK	Androstenedione		5.0	4.71	ng/L	94	(50-150)		
MS_201312210055	Androstenedione	ND	100	106	ng/L	106	(60-140)		
MSD_201312210055	Androstenedione	ND	100	108	ng/L	108	(60-140)	40	1.9
LCS1	Atenolol		100	95.6	ng/L	96	(60-140)		
LCS2	Atenolol		100	94.5	ng/L	95	(60-140)	30	1.2
MBLK	Atenolol			<5	ng/L				
MRL_CHK	Atenolol		5.0	4.82	ng/L	96	(50-150)		
MS_201312210055	Atenolol	ND	100	88.5	ng/L	88	(60-140)		
MSD_201312210055	Atenolol	ND	100	86.4	ng/L	86	(60-140)	40	2.4

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Atrazine		100	99.1	ng/L	99	(60-140)		
LCS2	Atrazine		100	108	ng/L	108	(60-140)	30	8.6
MBLK	Atrazine			<5	ng/L				
MRL_CHK	Atrazine		5.0	4.61	ng/L	92	(50-150)		
MS_201312210055	Atrazine	ND	100	101	ng/L	101	(60-140)		
MSD_201312210055	Atrazine	ND	100	101	ng/L	100	(60-140)	40	0.0
LCS1	Azithromycin		400	311	ng/L	78	(60-140)		
LCS2	Azithromycin		400	512	ng/L	128	(60-140)	30	49
MBLK	Azithromycin			<20	ng/L				
MRL_CHK	Azithromycin		20	24.6	ng/L	123	(50-150)		
MS_201312210055	Azithromycin	ND	400	469	ng/L	117	(60-140)		
MSD_201312210055	Azithromycin	ND	400	260	ng/L	65	(60-140)	40	57
LCS1	Bezafibrate		100	91.9	ng/L	92	(60-140)		
LCS2	Bezafibrate		100	105	ng/L	105	(60-140)	30	13
MBLK	Bezafibrate			<5	ng/L				
MRL_CHK	Bezafibrate		5.0	4.76	ng/L	95	(50-150)		
MS_201312210055	Bezafibrate	ND	100	102	ng/L	101	(60-140)		
MSD_201312210055	Bezafibrate	ND	100	101	ng/L	101	(60-140)	40	0.99
LCS1	Bromacil		100	88.1	ng/L	88	(60-140)		
LCS2	Bromacil		100	92.8	ng/L	93	(60-140)	30	5.3
MBLK	Bromacil			<5	ng/L				
MRL_CHK	Bromacil		5.0	4.51	ng/L	90	(50-150)		
MS_201312210055	Bromacil	ND	100	97.9	ng/L	98	(60-140)		
MSD_201312210055	Bromacil	ND	100	88.0	ng/L	88	(60-140)	40	11
LCS1	Caffeine		100	80.4	ng/L	80	(70-130)		
LCS2	Caffeine		100	96.4	ng/L	96	(70-130)	30	18
MBLK	Caffeine			<5	ng/L				
MRL_CHK	Caffeine		5.0	3.96	ng/L	79	(50-150)		
MS_201312210055	Caffeine	ND	100	113	ng/L	112	(60-140)		
MSD_201312210055	Caffeine	ND	100	111	ng/L	110	(60-140)	40	1.8
LCS1	Carbadox		100	99.4	ng/L	100	(60-140)		
LCS2	Carbadox		100	101	ng/L	101	(60-140)	30	1.5
MBLK	Carbadox			<5	ng/L				
MRL_CHK	Carbadox		5.0	6.08	ng/L	122	(50-150)		
MS_201312210055	Carbadox	ND	100	21.0	ng/L	21	(60-140)		
MSD_201312210055	Carbadox	ND	100	21.3	ng/L	21	(60-140)	40	1.4
LCS1	Carbamazepine		100	102	ng/L	102	(60-140)		
LCS2	Carbamazepine		100	102	ng/L	102	(60-140)	30	0.0

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Carollo

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Carbamazepine			<5	ng/L				
MRL_CHK	Carbamazepine		5.0	4.84	ng/L	97	(50-150)		
MS_201312210055	Carbamazepine	ND	100	103	ng/L	102	(60-140)		
MSD_201312210055	Carbamazepine	ND	100	112	ng/L	111	(60-140)	40	8.4
LCS1	Carisoprodol		100	108	ng/L	109	(60-140)		
LCS2	Carisoprodol		100	100	ng/L	100	(60-140)	30	8.6
MBLK	Carisoprodol			<5	ng/L				
MRL_CHK	Carisoprodol		5.0	4.69	ng/L	94	(50-150)		
MS_201312210055	Carisoprodol	ND	100	76.9	ng/L	77	(60-140)		
MSD_201312210055	Carisoprodol	ND	100	73.4	ng/L	73	(60-140)	40	4.5
LCS1	Chloridazon		100	112	ng/L	112	(60-140)		
LCS2	Chloridazon		100	101	ng/L	101	(60-140)	30	10
MBLK	Chloridazon			<5	ng/L				
MRL_CHK	Chloridazon		5.0	4.99	ng/L	100	(50-150)		
MS_201312210055	Chloridazon	ND	100	60.8	ng/L	61	(60-140)		
MSD_201312210055	Chloridazon	ND	100	61.9	ng/L	62	(60-140)	40	1.8
LCS1	Chlorotoluron		100	114	ng/L	114	(60-140)		
LCS2	Chlorotoluron		100	106	ng/L	106	(60-140)	30	7.3
MBLK	Chlorotoluron			<5	ng/L				
MRL_CHK	Chlorotoluron		5.0	4.74	ng/L	95	(50-150)		
MS_201312210055	Chlorotoluron	ND	100	104	ng/L	104	(60-140)		
MSD_201312210055	Chlorotoluron	ND	100	98.7	ng/L	99	(60-140)	40	5.2
LCS1	Cimetidine		100	89.5	ng/L	90	(60-140)		
LCS2	Cimetidine		100	101	ng/L	101	(60-140)	30	12
MBLK	Cimetidine			<5	ng/L				
MRL_CHK	Cimetidine		5.0	4.62	ng/L	92	(50-150)		
MS_201312210055	Cimetidine	ND	100	74.1	ng/L	74	(60-140)		
MSD_201312210055	Cimetidine	ND	100	80.9	ng/L	81	(60-140)	40	8.8
LCS1	Cotinine		200	197	ng/L	99	(60-140)		
LCS2	Cotinine		200	213	ng/L	107	(60-140)	30	7.8
MBLK	Cotinine			<10	ng/L				
MRL_CHK	Cotinine		10	9.97	ng/L	100	(50-150)		
MS_201312210055	Cotinine	ND	200	224	ng/L	112	(60-140)		
MSD_201312210055	Cotinine	ND	200	191	ng/L	96	(60-140)	40	16
LCS1	Cyanazine		100	97.8	ng/L	98	(60-140)		
LCS2	Cyanazine		100	102	ng/L	102	(60-140)	30	4.2
MBLK	Cyanazine			<5	ng/L				
MRL_CHK	Cyanazine		5.0	4.87	ng/L	97	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201312210055	Cyanazine	ND	100	106	ng/L	106	(60-140)		
MSD_201312210055	Cyanazine	ND	100	107	ng/L	107	(60-140)	40	0.94
LCS1	DACT		100	95.9	ng/L	96	(60-140)		
LCS2	DACT		100	108	ng/L	108	(60-140)	30	12
MBLK	DACT			<5	ng/L				
MRL_CHK	DACT		5.0	2.93	ng/L	59	(50-150)		
MS_201312210055	DACT	ND	100	95.5	ng/L	95	(60-140)		
MSD_201312210055	DACT	ND	100	108	ng/L	107	(60-140)	40	12
LCS1	DEA		100	98.9	ng/L	99	(60-140)		
LCS2	DEA		100	103	ng/L	103	(60-140)	30	4.1
MBLK	DEA			<5	ng/L				
MRL_CHK	DEA		5.0	5.35	ng/L	107	(50-150)		
MS_201312210055	DEA	ND	100	95.4	ng/L	95	(60-140)		
MSD_201312210055	DEA	ND	100	94.0	ng/L	94	(60-140)	40	1.5
LCS1	DEET		40	35.7	ng/L	89	(70-130)		
LCS2	DEET		40	40.6	ng/L	101	(70-130)	30	13
MBLK	DEET			<6	ng/L				
MRL_CHK	DEET		2.0	2.31	ng/L	116	(50-150)		
MS_201312210055	DEET	14	40	52.0	ng/L	96	(60-140)		
MSD_201312210055	DEET	14	40	49.3	ng/L	89	(60-140)	40	5.3
LCS1	Dehydronifedipine		100	103	ng/L	103	(60-140)		
LCS2	Dehydronifedipine		100	98.4	ng/L	98	(60-140)	30	4.6
MBLK	Dehydronifedipine			<5	ng/L				
MRL_CHK	Dehydronifedipine		5.0	6.17	ng/L	123	(50-150)		
MS_201312210055	Dehydronifedipine	ND	100	34.4	ng/L	<u>34</u>	(60-140)		
MSD_201312210055	Dehydronifedipine	ND	100	39.6	ng/L	<u>40</u>	(60-140)	40	14
LCS1	DIA		100	109	ng/L	109	(60-140)		
LCS2	DIA		100	106	ng/L	107	(60-140)	30	1.9
MBLK	DIA			<5	ng/L				
MRL_CHK	DIA		5.0	4.32	ng/L	86	(50-150)		
MS_201312210055	DIA	ND	100	105	ng/L	105	(60-140)		
MSD_201312210055	DIA	ND	100	101	ng/L	101	(60-140)	40	3.9
LCS1	Diazepam		100	98.4	ng/L	98	(60-140)		
LCS2	Diazepam		100	97.8	ng/L	98	(60-140)	30	0.61
MBLK	Diazepam			<5	ng/L				
MRL_CHK	Diazepam		5.0	4.52	ng/L	90	(50-150)		
MS_201312210055	Diazepam	ND	100	97.2	ng/L	97	(60-140)		
MSD_201312210055	Diazepam	ND	100	96.7	ng/L	96	(60-140)	40	0.52

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Dilantin		400	353	ng/L	88	(60-140)		
LCS2	Dilantin		400	384	ng/L	96	(60-140)	30	8.4
MBLK	Dilantin			<20	ng/L				
MRL_CHK	Dilantin		20	21.5	ng/L	108	(50-150)		
MS_201312210055	Dilantin	ND	400	401	ng/L	100	(60-140)		
MSD_201312210055	Dilantin	ND	400	407	ng/L	101	(60-140)	40	1.5
LCS1	Diltiazem		100	105	ng/L	105	(60-140)		
LCS2	Diltiazem		100	92.8	ng/L	93	(60-140)	30	12
MBLK	Diltiazem			<5	ng/L				
MRL_CHK	Diltiazem		5.0	4.84	ng/L	97	(50-150)		
MS_201312210055	Diltiazem	ND	100	131	ng/L	131	(60-140)		
MSD_201312210055	Diltiazem	ND	100	136	ng/L	136	(60-140)	40	3.8
LCS1	Diuron		100	116	ng/L	116	(60-140)		
LCS2	Diuron		100	103	ng/L	103	(60-140)	30	12
MBLK	Diuron			<5	ng/L				
MRL_CHK	Diuron		5.0	4.28	ng/L	86	(50-150)		
MS_201312210055	Diuron	ND	100	118	ng/L	118	(60-140)		
MSD_201312210055	Diuron	ND	100	127	ng/L	127	(60-140)	40	7.3
LCS1	Erythromycin		200	210	ng/L	105	(60-140)		
LCS2	Erythromycin		200	193	ng/L	96	(60-140)	30	8.4
MBLK	Erythromycin			<10	ng/L				
MRL_CHK	Erythromycin		10	14.5	ng/L	145	(50-150)		
MS_201312210055	Erythromycin	ND	200	174	ng/L	87	(60-140)		
MSD_201312210055	Erythromycin	ND	200	183	ng/L	91	(60-140)	40	5.0
LCS1	Flumequine		200	178	ng/L	89	(60-140)		
LCS2	Flumequine		200	198	ng/L	99	(60-140)	30	11
MBLK	Flumequine			<10	ng/L				
MRL_CHK	Flumequine		10	10.8	ng/L	108	(50-150)		
MS_201312210055	Flumequine	ND	200	204	ng/L	102	(60-140)		
MSD_201312210055	Flumequine	ND	200	252	ng/L	126	(60-140)	40	21
LCS1	Fluoxetine		100	116	ng/L	116	(60-140)		
LCS2	Fluoxetine		100	101	ng/L	101	(60-140)	30	14
MBLK	Fluoxetine			<10	ng/L				
MRL_CHK	Fluoxetine		5.0	7.09	ng/L	142	(50-150)		
MS_201312210055	Fluoxetine	ND	100	124	ng/L	121	(60-140)		
MSD_201312210055	Fluoxetine	ND	100	122	ng/L	118	(60-140)	40	2.4
LCS1	Isoproturon		400	412	ng/L	103	(60-140)		
LCS2	Isoproturon		400	431	ng/L	108	(60-140)	30	4.5

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Isoproturon			<20	ng/L				
MRL_CHK	Isoproturon		20	21.1	ng/L	106	(50-150)		
MS_201312210055	Isoproturon	ND	400	384	ng/L	96	(60-140)		
MSD_201312210055	Isoproturon	ND	400	376	ng/L	94	(60-140)	40	1.8
LCS1	Ketoprofen		100	87.7	ng/L	88	(60-140)		
LCS2	Ketoprofen		100	101	ng/L	101	(60-140)	30	14
MBLK	Ketoprofen			<5	ng/L				
MRL_CHK	Ketoprofen		5.0	4.83	ng/L	97	(50-150)		
MS_201312210055	Ketoprofen	ND	100	84.5	ng/L	85	(60-140)		
MSD_201312210055	Ketoprofen	ND	100	81.3	ng/L	81	(60-140)	40	3.9
LCS1	Ketorolac		100	105	ng/L	105	(60-140)		
LCS2	Ketorolac		100	106	ng/L	106	(60-140)	30	0.95
MBLK	Ketorolac			<5	ng/L				
MRL_CHK	Ketorolac		5.0	5.54	ng/L	111	(50-150)		
MS_201312210055	Ketorolac	ND	100	65.7	ng/L	66	(60-140)		
MSD_201312210055	Ketorolac	ND	100	61.7	ng/L	62	(60-140)	40	6.3
LCS1	Lidocaine		100	96.8	ng/L	97	(60-140)		
LCS2	Lidocaine		100	101	ng/L	101	(60-140)	30	4.3
MBLK	Lidocaine			<5	ng/L				
MRL_CHK	Lidocaine		5.0	4.82	ng/L	97	(50-150)		
MS_201312210055	Lidocaine	ND	100	77.3	ng/L	77	(60-140)		
MSD_201312210055	Lidocaine	ND	100	72.2	ng/L	72	(60-140)	40	6.8
LCS1	Lincomycin		200	221	ng/L	110	(60-140)		
LCS2	Lincomycin		200	177	ng/L	89	(60-140)	30	22
MBLK	Lincomycin			<10	ng/L				
MRL_CHK	Lincomycin		10	8.88	ng/L	89	(50-150)		
MS_201312210055	Lincomycin	ND	200	239	ng/L	119	(60-140)		
MSD_201312210055	Lincomycin	ND	200	235	ng/L	118	(60-140)	40	1.7
LCS1	Linuron		100	90.9	ng/L	91	(60-140)		
LCS2	Linuron		100	91.4	ng/L	91	(60-140)	30	0.55
MBLK	Linuron			<5	ng/L				
MRL_CHK	Linuron		5.0	4.22	ng/L	85	(50-150)		
MS_201312210055	Linuron	ND	100	85.9	ng/L	86	(60-140)		
MSD_201312210055	Linuron	ND	100	86.6	ng/L	86	(60-140)	40	0.81
LCS1	Lopressor		400	399	ng/L	100	(60-140)		
LCS2	Lopressor		400	399	ng/L	100	(60-140)	30	0.0
MBLK	Lopressor			<20	ng/L				
MRL_CHK	Lopressor		20	17.5	ng/L	87	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201312210055	Lopressor	ND	400	393	ng/L	98	(60-140)		
MSD_201312210055	Lopressor	ND	400	401	ng/L	100	(60-140)	40	2.0
LCS1	Meclofenamic Acid		100	86.2	ng/L	86	(60-140)		
LCS2	Meclofenamic Acid		100	102	ng/L	102	(60-140)	30	17
MBLK	Meclofenamic Acid			<5	ng/L				
MRL_CHK	Meclofenamic Acid		5.0	7.02	ng/L	141	(50-150)		
MS_201312210055	Meclofenamic Acid	ND	100	94.5	ng/L	95	(60-140)		
MSD_201312210055	Meclofenamic Acid	ND	100	92.2	ng/L	92	(60-140)	40	2.5
LCS1	Meprobamate		100	104	ng/L	104	(60-140)		
LCS2	Meprobamate		100	99.4	ng/L	99	(60-140)	30	4.5
MBLK	Meprobamate			<5	ng/L				
MRL_CHK	Meprobamate		5.0	5.19	ng/L	104	(50-150)		
MS_201312210055	Meprobamate	ND	100	88.0	ng/L	88	(60-140)		
MSD_201312210055	Meprobamate	ND	100	86.9	ng/L	87	(60-140)	40	1.3
LCS1	Metazachlor		100	102	ng/L	102	(60-140)		
LCS2	Metazachlor		100	102	ng/L	102	(60-140)	30	0.0
MBLK	Metazachlor			<5	ng/L				
MRL_CHK	Metazachlor		5.0	4.92	ng/L	98	(50-150)		
MS_201312210055	Metazachlor	ND	100	89.5	ng/L	89	(60-140)		
MSD_201312210055	Metazachlor	ND	100	98.1	ng/L	98	(60-140)	40	9.2
LCS1	Metolachlor		100	98.1	ng/L	98	(60-140)		
LCS2	Metolachlor		100	101	ng/L	101	(60-140)	30	2.9
MBLK	Metolachlor			<5	ng/L				
MRL_CHK	Metolachlor		5.0	4.62	ng/L	92	(50-150)		
MS_201312210055	Metolachlor	ND	100	99.1	ng/L	99	(60-140)		
MSD_201312210055	Metolachlor	ND	100	97.6	ng/L	97	(60-140)	40	1.5
LCS1	Nifedipine		400	435	ng/L	109	(60-140)		
LCS2	Nifedipine		400	424	ng/L	106	(60-140)	30	2.6
MBLK	Nifedipine			<20	ng/L				
MRL_CHK	Nifedipine		20	17.9	ng/L	90	(50-150)		
MS_201312210055	Nifedipine	ND	400	461	ng/L	115	(60-140)		
MSD_201312210055	Nifedipine	ND	400	486	ng/L	121	(60-140)	40	5.3
LCS1	Norethisterone		100	85.2	ng/L	85	(60-140)		
LCS2	Norethisterone		100	105	ng/L	105	(60-140)	30	21
MBLK	Norethisterone			<5	ng/L				
MRL_CHK	Norethisterone		5.0	6.19	ng/L	124	(50-150)		
MS_201312210055	Norethisterone	ND	100	84.2	ng/L	84	(60-140)		
MSD_201312210055	Norethisterone	ND	100	100	ng/L	100	(60-140)	40	17

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Oxolinic acid		100	94.5	ng/L	95	(60-140)		
LCS2	Oxolinic acid		100	103	ng/L	103	(60-140)	30	8.6
MBLK	Oxolinic acid			<5	ng/L				
MRL_CHK	Oxolinic acid		5.0	5.71	ng/L	114	(50-150)		
MS_201312210055	Oxolinic acid	ND	100	108	ng/L	108	(60-140)		
MSD_201312210055	Oxolinic acid	ND	100	81.6	ng/L	82	(60-140)	40	28
LCS1	Pentoxifylline		100	118	ng/L	118	(60-140)		
LCS2	Pentoxifylline		100	108	ng/L	108	(60-140)	30	8.8
MBLK	Pentoxifylline			<5	ng/L				
MRL_CHK	Pentoxifylline		5.0	4.88	ng/L	98	(50-150)		
MS_201312210055	Pentoxifylline	ND	100	72.6	ng/L	73	(60-140)		
MSD_201312210055	Pentoxifylline	ND	100	69.6	ng/L	70	(60-140)	40	4.2
LCS1	Phenazone		100	100	ng/L	100	(60-140)		
LCS2	Phenazone		100	97.0	ng/L	97	(60-140)	30	3.0
MBLK	Phenazone			<5	ng/L				
MRL_CHK	Phenazone		5.0	4.49	ng/L	90	(50-150)		
MS_201312210055	Phenazone	ND	100	85.2	ng/L	85	(60-140)		
MSD_201312210055	Phenazone	ND	100	85.6	ng/L	86	(60-140)	40	0.47
LCS1	Primidone		100	78.2	ng/L	78	(60-140)		
LCS2	Primidone		100	110	ng/L	110	(60-140)	30	<u>34</u>
MBLK	Primidone			<5	ng/L				
MRL_CHK	Primidone		5.0	5.18	ng/L	104	(50-150)		
MS_201312210055	Primidone	ND	100	87.5	ng/L	87	(60-140)		
MSD_201312210055	Primidone	ND	100	91.6	ng/L	92	(60-140)	40	4.6
LCS1	Progesterone		100	89.2	ng/L	89	(60-140)		
LCS2	Progesterone		100	91.6	ng/L	92	(60-140)	30	2.6
MBLK	Progesterone			<5	ng/L				
MRL_CHK	Progesterone		5.0	4.81	ng/L	96	(50-150)		
MS_201312210055	Progesterone	ND	100	91.5	ng/L	91	(60-140)		
MSD_201312210055	Progesterone	ND	100	102	ng/L	101	(60-140)	40	11
LCS1	Propazine		100	99.4	ng/L	99	(60-140)		
LCS2	Propazine		100	111	ng/L	111	(60-140)	30	11
MBLK	Propazine			<5	ng/L				
MRL_CHK	Propazine		5.0	5.08	ng/L	102	(50-150)		
MS_201312210055	Propazine	ND	100	115	ng/L	115	(60-140)		
MSD_201312210055	Propazine	ND	100	113	ng/L	113	(60-140)	40	1.8
LCS1	Quinoline		100	107	ng/L	107	(60-140)		
LCS2	Quinoline		100	110	ng/L	110	(60-140)	30	2.8

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Quinoline			<5	ng/L				
MRL_CHK	Quinoline		5.0	4.05	ng/L	81	(50-150)		
MS_201312210055	Quinoline	ND	100	92.4	ng/L	92	(60-140)		
MSD_201312210055	Quinoline	ND	100	97.2	ng/L	97	(60-140)	40	5.0
LCS1	Simazine		100	104	ng/L	104	(60-140)		
LCS2	Simazine		100	105	ng/L	105	(60-140)	30	0.96
MBLK	Simazine			<5	ng/L				
MRL_CHK	Simazine		5.0	4.80	ng/L	96	(50-150)		
MS_201312210055	Simazine	ND	100	110	ng/L	110	(60-140)		
MSD_201312210055	Simazine	ND	100	109	ng/L	108	(60-140)	40	0.91
LCS1	Sulfachloropyridazine		100	101	ng/L	101	(60-140)		
LCS2	Sulfachloropyridazine		100	101	ng/L	101	(60-140)	30	0.0
MBLK	Sulfachloropyridazine			<5	ng/L				
MRL_CHK	Sulfachloropyridazine		5.0	4.56	ng/L	91	(50-150)		
MS_201312210055	Sulfachloropyridazine	ND	100	80.8	ng/L	81	(60-140)		
MSD_201312210055	Sulfachloropyridazine	ND	100	78.8	ng/L	79	(60-140)	40	2.5
LCS1	Sulfadiazine		100	98.7	ng/L	99	(60-140)		
LCS2	Sulfadiazine		100	98.8	ng/L	99	(60-140)	30	0.10
MBLK	Sulfadiazine			<5	ng/L				
MRL_CHK	Sulfadiazine		5.0	4.97	ng/L	99	(50-150)		
MS_201312210055	Sulfadiazine	ND	100	106	ng/L	106	(60-140)		
MSD_201312210055	Sulfadiazine	ND	100	110	ng/L	110	(60-140)	40	3.7
LCS1	Sulfadimethoxine		100	111	ng/L	111	(60-140)		
LCS2	Sulfadimethoxine		100	100	ng/L	101	(60-140)	30	9.4
MBLK	Sulfadimethoxine			<5	ng/L				
MRL_CHK	Sulfadimethoxine		5.0	4.33	ng/L	87	(50-150)		
MS_201312210055	Sulfadimethoxine	ND	100	90.2	ng/L	90	(60-140)		
MSD_201312210055	Sulfadimethoxine	ND	100	96.6	ng/L	96	(60-140)	40	6.8
LCS1	Sulfamerazine		100	120	ng/L	120	(60-140)		
LCS2	Sulfamerazine		100	101	ng/L	101	(60-140)	30	17
MBLK	Sulfamerazine			<5	ng/L				
MRL_CHK	Sulfamerazine		5.0	4.61	ng/L	92	(50-150)		
MS_201312210055	Sulfamerazine	ND	100	82.3	ng/L	82	(60-140)		
MSD_201312210055	Sulfamerazine	ND	100	78.2	ng/L	78	(60-140)	40	5.1
LCS1	Sulfamethazine		100	111	ng/L	111	(60-140)		
LCS2	Sulfamethazine		100	97.2	ng/L	97	(60-140)	30	13
MBLK	Sulfamethazine			<5	ng/L				
MRL_CHK	Sulfamethazine		5.0	4.69	ng/L	94	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201312210055	Sulfamethazine	ND	100	91.0	ng/L	91	(60-140)		
MSD_201312210055	Sulfamethazine	ND	100	94.7	ng/L	95	(60-140)	40	4.0
LCS1	Sulfamethizole		100	91.4	ng/L	91	(60-140)		
LCS2	Sulfamethizole		100	108	ng/L	108	(60-140)	30	17
MBLK	Sulfamethizole			<5	ng/L				
MRL_CHK	Sulfamethizole		5.0	6.05	ng/L	121	(50-150)		
MS_201312210055	Sulfamethizole	ND	100	60.6	ng/L	60	(60-140)		
MSD_201312210055	Sulfamethizole	ND	100	60.5	ng/L	60	(60-140)	40	0.33
LCS1	Sulfamethoxazole		100	110	ng/L	110	(70-130)		
LCS2	Sulfamethoxazole		100	101	ng/L	101	(70-130)	30	8.5
MBLK	Sulfamethoxazole			<5	ng/L				
MRL_CHK	Sulfamethoxazole		5.0	4.92	ng/L	98	(50-150)		
MS_201312210055	Sulfamethoxazole	ND	100	98.5	ng/L	99	(60-140)		
MSD_201312210055	Sulfamethoxazole	ND	100	91.5	ng/L	92	(60-140)	40	7.4
LCS1	Sulfathiazole		100	97.5	ng/L	98	(60-140)		
LCS2	Sulfathiazole		100	93.7	ng/L	94	(60-140)	30	4.0
MBLK	Sulfathiazole			<5	ng/L				
MRL_CHK	Sulfathiazole		5.0	4.69	ng/L	94	(50-150)		
MS_201312210055	Sulfathiazole	ND	100	81.8	ng/L	82	(60-140)		
MSD_201312210055	Sulfathiazole	ND	100	85.6	ng/L	86	(60-140)	40	4.5
LCS1	TCEP		100	89.3	ng/L	89	(60-140)		
LCS2	TCEP		100	103	ng/L	103	(60-140)	30	14
MBLK	TCEP			<10	ng/L				
MRL_CHK	TCEP		5.0	3.92	ng/L	79	(50-150)		
MS_201312210055	TCEP	ND	100	90.6	ng/L	89	(60-140)		
MSD_201312210055	TCEP	ND	100	87.2	ng/L	85	(60-140)	40	3.8
LCS1	TCPP		100	119	ng/L	119	(40-160)		
LCS2	TCPP		100	96.5	ng/L	97	(40-160)	30	21
MBLK	TCPP			<100	ng/L				
MRL_CHK	TCPP		5.0	5.71	ng/L	114	(40-160)		
MS_201312210055	TCPP	ND	100	95.9	ng/L	95	(40-160)		
MSD_201312210055	TCPP	ND	100	102	ng/L	101	(40-160)	60	6.2
LCS1	TDCPP		400	308	ng/L	77	(40-160)		
LCS2	TDCPP		400	349	ng/L	87	(40-160)	30	13
MBLK	TDCPP			<100	ng/L				
MRL_CHK	TDCPP		20	24.4	ng/L	122	(40-160)		
MS_201312210055	TDCPP	ND	400	437	ng/L	108	(40-160)		
MSD_201312210055	TDCPP	ND	400	433	ng/L	107	(40-160)	60	0.92

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Testosterone		100	83.8	ng/L	84	(60-140)		
LCS2	Testosterone		100	111	ng/L	111	(60-140)	30	28
MBLK	Testosterone			<5	ng/L				
MRL_CHK	Testosterone		5.0	5.31	ng/L	106	(50-150)		
MS_201312210055	Testosterone	ND	100	90.8	ng/L	91	(60-140)		
MSD_201312210055	Testosterone	ND	100	89.2	ng/L	89	(60-140)	40	1.8
LCS1	Theobromine		100	105	ng/L	105	(60-140)		
LCS2	Theobromine		100	99.7	ng/L	100	(60-140)	30	5.2
MBLK	Theobromine			<5	ng/L				
MRL_CHK	Theobromine		5.0	4.59	ng/L	92	(50-150)		
MS_201312210055	Theobromine	ND	100	105	ng/L	105	(60-140)		
MSD_201312210055	Theobromine	ND	100	112	ng/L	112	(60-140)	40	6.5
LCS1	Theophylline		200	196	ng/L	98	(60-140)		
LCS2	Theophylline		200	199	ng/L	100	(60-140)	30	1.5
MBLK	Theophylline			<10	ng/L				
MRL_CHK	Theophylline		10	9.45	ng/L	95	(50-150)		
MS_201312210055	Theophylline	ND	200	160	ng/L	80	(60-140)		
MSD_201312210055	Theophylline	ND	200	154	ng/L	77	(60-140)	40	3.8
LCS1	Trimethoprim		100	100	ng/L	100	(60-140)		
LCS2	Trimethoprim		100	107	ng/L	107	(60-140)	30	6.8
MBLK	Trimethoprim			<5	ng/L				
MRL_CHK	Trimethoprim		5.0	5.59	ng/L	112	(50-150)		
MS_201312210055	Trimethoprim	ND	100	93.9	ng/L	93	(60-140)		
MSD_201312210055	Trimethoprim	ND	100	89.6	ng/L	89	(60-140)	40	4.7

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Analysis Date: 01/14/2014

LCS1	2,4-D		100	106	ng/L	106	(60-140)		
LCS2	2,4-D		100	117	ng/L	117	(60-140)	40	9.9
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	4.41	ng/L	88	(50-150)		
MS_201312210055	2,4-D	ND	100	278	ng/L	<u>278</u>	(60-140)		
MSD_201312210055	2,4-D	ND	100	226	ng/L	<u>226</u>	(60-140)	40	21
LCS1	4-nonylphenol - semi quantitative		200	147	ng/L	74	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	156	ng/L	78	(60-140)	40	5.9
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	10.1	ng/L	101	(50-150)		
MS_201312210055	4-nonylphenol - semi quantitative	ND	200	145	ng/L	73	(60-140)		
MSD_201312210055	4-nonylphenol - semi quantitative	ND	200	177	ng/L	88	(60-140)	40	20
LCS1	4-tert-octylphenol		100	101	ng/L	101	(60-140)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	4-tert-octylphenol		100	112	ng/L	112	(60-140)	40	10
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	7.10	ng/L	142	(50-150)		
MS_201312210055	4-tert-octylphenol	ND	100	161	ng/L	<u>161</u>	(60-140)		
MSD_201312210055	4-tert-octylphenol	ND	100	143	ng/L	<u>143</u>	(60-140)	40	12
LCS1	Acesulfame-K		400	451	ng/L	113	(60-140)		
LCS2	Acesulfame-K		400	374	ng/L	93	(60-140)	40	19
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	17.4	ng/L	87	(50-150)		
MS_201312210055	Acesulfame-K	ND	400	464	ng/L	116	(60-140)		
MSD_201312210055	Acesulfame-K	ND	400	520	ng/L	130	(60-140)	40	11
LCS1	Bendroflumethiazide		100	84.1	ng/L	84	(60-140)		
LCS2	Bendroflumethiazide		100	125	ng/L	125	(60-140)	40	39
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	3.41	ng/L	68	(50-150)		
MS_201312210055	Bendroflumethiazide	ND	100	112	ng/L	111	(60-140)		
MSD_201312210055	Bendroflumethiazide	ND	100	86.9	ng/L	87	(60-140)	40	25
LCS1	BPA		100	87.4	ng/L	87	(60-140)		
LCS2	BPA		100	96.5	ng/L	97	(60-140)	40	9.9
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	3.29	ng/L	66	(50-150)		
MS_201312210055	BPA	ND	100	90.9	ng/L	87	(60-140)		
MSD_201312210055	BPA	ND	100	99.7	ng/L	96	(60-140)	40	9.2
LCS1	Butalbital		100	104	ng/L	104	(60-140)		
LCS2	Butalbital		100	99.3	ng/L	99	(60-140)	40	4.6
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	4.20	ng/L	84	(50-150)		
MS_201312210055	Butalbital	ND	100	115	ng/L	114	(60-140)		
MSD_201312210055	Butalbital	ND	100	106	ng/L	105	(60-140)	40	8.1
LCS1	Butylparben		100	100	ng/L	101	(60-140)		
LCS2	Butylparben		100	112	ng/L	112	(60-140)	40	10
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	4.91	ng/L	98	(50-150)		
MS_201312210055	Butylparben	ND	100	134	ng/L	132	(60-140)		
MSD_201312210055	Butylparben	ND	100	120	ng/L	118	(60-140)	40	10
LCS1	Chloramphenicol		100	97.7	ng/L	98	(60-140)		
LCS2	Chloramphenicol		100	106	ng/L	106	(60-140)	40	8.2
MBLK	Chloramphenicol			<10	ng/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Chloramphenicol		5.0	5.70	ng/L	114	(50-150)		
MS_201312210055	Chloramphenicol	ND	100	106	ng/L	106	(60-140)		
MSD_201312210055	Chloramphenicol	ND	100	97.3	ng/L	97	(60-140)	40	8.6
LCS1	Clofibric Acid		100	99.5	ng/L	100	(60-140)		
LCS2	Clofibric Acid		100	106	ng/L	106	(60-140)	40	6.3
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	5.73	ng/L	115	(50-150)		
MS_201312210055	Clofibric Acid	ND	100	133	ng/L	132	(60-140)		
MSD_201312210055	Clofibric Acid	ND	100	110	ng/L	110	(60-140)	40	19
LCS1	Diclofenac		100	123	ng/L	123	(60-140)		
LCS2	Diclofenac		100	112	ng/L	113	(60-140)	40	8.5
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	4.99	ng/L	100	(50-150)		
MS_201312210055	Diclofenac	ND	100	104	ng/L	102	(60-140)		
MSD_201312210055	Diclofenac	ND	100	95.6	ng/L	94	(60-140)	40	8.4
LCS1	Estradiol		100	106	ng/L	106	(60-140)		
LCS2	Estradiol		100	91.6	ng/L	92	(60-140)	40	15
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	5.04	ng/L	101	(50-150)		
MS_201312210055	Estradiol	ND	100	85.3	ng/L	85	(60-140)		
MSD_201312210055	Estradiol	ND	100	94.2	ng/L	94	(60-140)	40	9.9
LCS1	Estrone		100	85.7	ng/L	86	(60-140)		
LCS2	Estrone		100	97.9	ng/L	98	(60-140)	40	13
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	4.88	ng/L	98	(50-150)		
MS_201312210055	Estrone	ND	100	89.4	ng/L	88	(60-140)		
MSD_201312210055	Estrone	ND	100	99.8	ng/L	98	(60-140)	40	11
LCS1	Ethinyl Estradiol - 17 alpha		100	97.1	ng/L	97	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	94.3	ng/L	94	(60-140)	40	2.9
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	4.06	ng/L	81	(50-150)		
MS_201312210055	Ethinyl Estradiol - 17 alpha	ND	100	83.1	ng/L	83	(60-140)		
MSD_201312210055	Ethinyl Estradiol - 17 alpha	ND	100	117	ng/L	117	(60-140)	40	34
LCS1	Ethylparaben		400	367	ng/L	92	(60-140)		
LCS2	Ethylparaben		400	352	ng/L	88	(60-140)	40	4.2
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	14.8	ng/L	74	(50-150)		
MS_201312210055	Ethylparaben	ND	400	538	ng/L	135	(60-140)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MSD_201312210055	Ethylparaben	ND	400	535	ng/L	134	(60-140)	40	0.56
LCS1	Gemfibrozil		100	86.6	ng/L	87	(60-140)		
LCS2	Gemfibrozil		100	93.8	ng/L	94	(60-140)	40	8.0
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	5.30	ng/L	106	(50-150)		
MS_201312210055	Gemfibrozil	ND	100	116	ng/L	115	(60-140)		
MSD_201312210055	Gemfibrozil	ND	100	93.4	ng/L	93	(60-140)	40	22
LCS1	Ibuprofen		200	173	ng/L	87	(60-140)		
LCS2	Ibuprofen		200	231	ng/L	116	(60-140)	40	29
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	7.02	ng/L	70	(50-150)		
MS_201312210055	Ibuprofen	ND	200	228	ng/L	113	(60-140)		
MSD_201312210055	Ibuprofen	ND	200	231	ng/L	115	(60-140)	40	1.3
LCS1	Iohexal		200	213	ng/L	107	(60-140)		
LCS2	Iohexal		200	216	ng/L	108	(60-140)	40	1.4
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	5.33	ng/L	53	(50-150)		
MS_201312210055	Iohexal	ND	200	169	ng/L	85	(50-150)		
MSD_201312210055	Iohexal	ND	200	196	ng/L	98	(50-150)	50	15
LCS1	Iopromide		100	107	ng/L	107	(60-140)		
LCS2	Iopromide		100	100	ng/L	100	(60-140)	40	6.8
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	5.57	ng/L	111	(50-150)		
MS_201312210055	Iopromide	ND	100	113	ng/L	113	(50-150)		
MSD_201312210055	Iopromide	ND	100	96.2	ng/L	96	(50-150)	50	16
LCS1	Isobutylparaben		100	94.7	ng/L	95	(60-140)		
LCS2	Isobutylparaben		100	93.1	ng/L	93	(60-140)	40	1.7
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	6.29	ng/L	126	(50-150)		
MS_201312210055	Isobutylparaben	ND	100	139	ng/L	137	(60-140)		
MSD_201312210055	Isobutylparaben	ND	100	130	ng/L	128	(60-140)	40	6.7
LCS1	Methylparaben		400	375	ng/L	94	(60-140)		
LCS2	Methylparaben		400	430	ng/L	108	(60-140)	40	14
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	14.8	ng/L	74	(50-150)		
MS_201312210055	Methylparaben	ND	400	444	ng/L	109	(60-140)		
MSD_201312210055	Methylparaben	ND	400	424	ng/L	104	(60-140)	40	4.6
LCS1	Naproxen		200	143	ng/L	71	(60-140)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	Naproxen		200	172	ng/L	86	(60-140)	40	18
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	8.73	ng/L	87	(50-150)		
MS_201312210055	Naproxen	ND	200	160	ng/L	79	(60-140)		
MSD_201312210055	Naproxen	ND	200	146	ng/L	72	(60-140)	40	9.2
LCS1	Propylparaben		100	102	ng/L	102	(60-140)		
LCS2	Propylparaben		100	107	ng/L	107	(60-140)	40	4.8
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	3.23	ng/L	65	(50-150)		
MS_201312210055	Propylparaben	ND	100	126	ng/L	126	(60-140)		
MSD_201312210055	Propylparaben	ND	100	119	ng/L	119	(60-140)	40	5.7
LCS1	Sucralose		2000	1860	ng/L	93	(60-140)		
LCS2	Sucralose		2000	1440	ng/L	72	(60-140)	40	26
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	78.4	ng/L	78	(50-150)		
MS_201312210055	Sucralose	ND	2000	1720	ng/L	86	(60-140)		
MSD_201312210055	Sucralose	ND	2000	2040	ng/L	102	(60-140)	40	17
LCS1	Triclocarban		100	83.9	ng/L	84	(60-140)		
LCS2	Triclocarban		100	89.4	ng/L	90	(60-140)	40	6.5
MBLK	Triclocarban			<5	ng/L				
MRL_CHK	Triclocarban		5.0	3.80	ng/L	76	(50-150)		
MS_201312210055	Triclocarban	ND	100	112	ng/L	111	(60-140)		
MSD_201312210055	Triclocarban	ND	100	95.7	ng/L	94	(60-140)	40	16
LCS1	Triclosan		200	172	ng/L	86	(60-140)		
LCS2	Triclosan		200	178	ng/L	89	(60-140)	40	3.4
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	10.6	ng/L	106	(50-150)		
MS_201312210055	Triclosan	ND	200	162	ng/L	79	(60-140)		
MSD_201312210055	Triclosan	ND	200	147	ng/L	71	(60-140)	40	9.7
LCS1	Warfarin		100	98.2	ng/L	98	(60-140)		
LCS2	Warfarin		100	104	ng/L	105	(60-140)	40	6.6
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	4.76	ng/L	95	(50-150)		
MS_201312210055	Warfarin	ND	100	137	ng/L	136	(60-140)		
MSD_201312210055	Warfarin	ND	100	122	ng/L	122	(60-140)	40	12

QC Ref# 746091 - Nitrosamines by GCMS by EPA 521

Analysis Date: 01/13/2014

LCS3	NDMA-D6 (S)			75.2	%	75	(70-130)		
MBLK	NDMA-D6 (S)			83.7	%	84	(70-130)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	NDMA-D6 (S)			69.9	%	70	(70-130)		
MS2_201401040006	NDMA-D6 (S)			78.7	%	79	(70-130)		
MSD2_201401040006	NDMA-D6 (S)			71.2	%	71	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	64.4	ng/L	81	(70-130)		
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	1.93	ng/L	97	(50-150)		
MS2_201401040006	N-Nitroso dimethylamine (NDMA)	ND	40	31.4	ng/L	77	(70-130)		
MSD2_201401040006	N-Nitroso dimethylamine (NDMA)	ND	40	29.3	ng/l	72	(70-130)	30	6.9
LCS3	N-Nitrosodibutylamine (NDBA)		80	70.8	ng/L	89	(70-130)		
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	2.28	ng/L	114	(50-150)		
MS2_201401040006	N-Nitrosodibutylamine (NDBA)	ND	40	38.3	ng/L	92	(70-130)		
MSD2_201401040006	N-Nitrosodibutylamine (NDBA)	ND	40	35.4	ng/l	85	(70-130)	30	7.9
LCS3	N-Nitrosodiethylamine (NDEA)		80	66.3	ng/L	83	(70-130)		
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	1.70	ng/L	85	(50-150)		
MS2_201401040006	N-Nitrosodiethylamine (NDEA)	ND	40	38.1	ng/L	95	(70-130)		
MSD2_201401040006	N-Nitrosodiethylamine (NDEA)	ND	40	31.6	ng/L	79	(70-130)	30	19
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	65.9	ng/L	82	(70-130)		
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	2.24	ng/L	112	(50-150)		
MS2_201401040006	N-Nitrosodi-n-propylamin(NDPA)	ND	40	34.8	ng/L	83	(70-130)		
MSD2_201401040006	N-Nitrosodi-n-propylamin(NDPA)	ND	40	33.7	ng/l	81	(70-130)	30	3.2
LCS3	N-Nitrosomethylethylamin(NMEA)		80	65.9	ng/L	82	(70-130)		
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.40	ng/L	70	(50-150)		
MS2_201401040006	N-Nitrosomethylethylamin(NMEA)	ND	40	35.5	ng/L	89	(70-130)		
MSD2_201401040006	N-Nitrosomethylethylamin(NMEA)	ND	40	30.0	ng/L	75	(70-130)	30	17
LCS3	N-Nitrosomorpholine		80	74.4	ng/l	93	(70-130)		
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	1.77	ng/l	89	(50-150)		
MS2_201401040006	N-Nitrosomorpholine	ND	40	37.5	ng/l	94	(70-130)		
MSD2_201401040006	N-Nitrosomorpholine	ND	40	29.6	ng/l	74	(70-130)	30	24
LCS3	N-Nitrosopiperidine (NPIP)		80	66.1	ng/L	83	(70-130)		
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	1.68	ng/L	84	(50-150)		
MS2_201401040006	N-Nitrosopiperidine (NPIP)	ND	40	34.3	ng/L	86	(70-130)		
MSD2_201401040006	N-Nitrosopiperidine (NPIP)	ND	40	30.3	ng/l	76	(70-130)	30	12

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS3	N-Nitrosopyrrolidine (NPYR)		80	62.8	ng/L	79	(70-130)		
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	1.25	ng/L	63	(50-150)		
MS2_201401040006	N-Nitrosopyrrolidine (NPYR)	ND	40	34.5	ng/L	85	(70-130)		
MSD2_201401040006	N-Nitrosopyrrolidine (NPYR)	ND	40	29.0	ng/L	72	(70-130)	30	17

QC Ref# 746391 - Endocrine Disruptors Negative Mode - SPE by LC-MS-MS

Analysis Date: 01/15/2014

LCS1	2,4-D		100	82.0	ng/L	82	(60-140)		
LCS2	2,4-D		100	101	ng/L	101	(60-140)	40	21
MBLK	2,4-D			<5	ng/L				
MRL_CHK	2,4-D		5.0	3.33	ng/L	67	(50-150)		
MS_201401040007	2,4-D	ND	100	133	ng/L	132	(60-140)		
MSD_201401040007	2,4-D	ND	100	128	ng/L	127	(60-140)	40	3.8
LCS1	4-nonylphenol - semi quantitative		200	162	ng/L	81	(60-140)		
LCS2	4-nonylphenol - semi quantitative		200	157	ng/L	79	(60-140)	40	3.1
MBLK	4-nonylphenol - semi quantitative			<100	ng/L				
MRL_CHK	4-nonylphenol - semi quantitative		10	11.7	ng/L	117	(50-150)		
MS_201401040007	4-nonylphenol - semi quantitative	ND	200	569	ng/L	<u>285</u>	(60-140)		
MSD_201401040007	4-nonylphenol - semi quantitative	ND	200	514	ng/L	<u>257</u>	(60-140)	40	10
LCS1	4-tert-octylphenol		100	94.3	ng/L	94	(60-140)		
LCS2	4-tert-octylphenol		100	114	ng/L	114	(60-140)	40	19
MBLK	4-tert-octylphenol			<100	ng/L				
MRL_CHK	4-tert-octylphenol		5.0	4.35	ng/L	87	(50-150)		
MS_201401040007	4-tert-octylphenol	ND	100	101	ng/L	101	(60-140)		
MSD_201401040007	4-tert-octylphenol	ND	100	118	ng/L	119	(60-140)	40	16
LCS1	Acesulfame-K		400	403	ng/L	101	(60-140)		
LCS2	Acesulfame-K		400	411	ng/L	103	(60-140)	40	2.0
MBLK	Acesulfame-K			<20	ng/L				
MRL_CHK	Acesulfame-K		20	16.7	ng/L	84	(50-150)		
MS_201401040007	Acesulfame-K	440	400	867	ng/L	107	(60-140)		
MSD_201401040007	Acesulfame-K	440	400	850	ng/L	103	(60-140)	40	1.9
LCS1	Bendroflumethiazide		100	101	ng/L	101	(60-140)		
LCS2	Bendroflumethiazide		100	115	ng/L	115	(60-140)	40	13
MBLK	Bendroflumethiazide			<5	ng/L				
MRL_CHK	Bendroflumethiazide		5.0	5.50	ng/L	110	(50-150)		
MS_201401040007	Bendroflumethiazide	ND	100	50.1	ng/L	<u>50</u>	(60-140)		
MSD_201401040007	Bendroflumethiazide	ND	100	50.0	ng/L	<u>50</u>	(60-140)	40	0.20
LCS1	BPA		100	99.6	ng/L	100	(60-140)		
LCS2	BPA		100	108	ng/L	108	(60-140)	40	8.1

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	BPA			<10	ng/L				
MRL_CHK	BPA		5.0	5.15	ng/L	103	(50-150)		
MS_201401040007	BPA	ND	100	127	ng/L	127	(60-140)		
MSD_201401040007	BPA	ND	100	131	ng/L	131	(60-140)	40	3.1
LCS1	Butalbital		100	95.6	ng/L	96	(60-140)		
LCS2	Butalbital		100	96.9	ng/L	97	(60-140)	40	1.4
MBLK	Butalbital			<5	ng/L				
MRL_CHK	Butalbital		5.0	4.39	ng/L	88	(50-150)		
MS_201401040007	Butalbital	65	100	157	ng/L	92	(60-140)		
MSD_201401040007	Butalbital	65	100	161	ng/L	95	(60-140)	40	2.5
LCS1	Butylparben		100	106	ng/L	106	(60-140)		
LCS2	Butylparben		100	106	ng/L	106	(60-140)	40	0.0
MBLK	Butylparben			<5	ng/L				
MRL_CHK	Butylparben		5.0	5.15	ng/L	103	(50-150)		
MS_201401040007	Butylparben	ND	100	106	ng/L	106	(60-140)		
MSD_201401040007	Butylparben	ND	100	115	ng/L	115	(60-140)	40	8.1
LCS1	Chloramphenicol		100	110	ng/L	110	(60-140)		
LCS2	Chloramphenicol		100	116	ng/L	116	(60-140)	40	5.3
MBLK	Chloramphenicol			<10	ng/L				
MRL_CHK	Chloramphenicol		5.0	5.99	ng/L	120	(50-150)		
MS_201401040007	Chloramphenicol	ND	100	80.1	ng/L	80	(60-140)		
MSD_201401040007	Chloramphenicol	ND	100	80.7	ng/L	81	(60-140)	40	0.75
LCS1	Clofibric Acid		100	93.8	ng/L	94	(60-140)		
LCS2	Clofibric Acid		100	110	ng/L	110	(60-140)	40	16
MBLK	Clofibric Acid			<5	ng/L				
MRL_CHK	Clofibric Acid		5.0	3.09	ng/L	62	(50-150)		
MS_201401040007	Clofibric Acid	ND	100	121	ng/L	121	(60-140)		
MSD_201401040007	Clofibric Acid	ND	100	116	ng/L	116	(60-140)	40	4.2
LCS1	Diclofenac		100	122	ng/L	122	(60-140)		
LCS2	Diclofenac		100	107	ng/L	107	(60-140)	40	13
MBLK	Diclofenac			<5	ng/L				
MRL_CHK	Diclofenac		5.0	3.22	ng/L	64	(50-150)		
MS_201401040007	Diclofenac	ND	100	92.8	ng/L	93	(60-140)		
MSD_201401040007	Diclofenac	ND	100	88.8	ng/L	89	(60-140)	40	4.4
LCS1	Estradiol		100	93.2	ng/L	93	(60-140)		
LCS2	Estradiol		100	85.3	ng/L	85	(60-140)	40	8.8
MBLK	Estradiol			<5	ng/L				
MRL_CHK	Estradiol		5.0	2.96	ng/L	59	(50-150)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201401040007	Estradiol	ND	100	127	ng/L	127	(60-140)		
MSD_201401040007	Estradiol	ND	100	128	ng/L	128	(60-140)	40	0.78
LCS1	Estrone		100	100	ng/L	100	(60-140)		
LCS2	Estrone		100	82.3	ng/L	82	(60-140)	40	19
MBLK	Estrone			<5	ng/L				
MRL_CHK	Estrone		5.0	4.41	ng/L	88	(50-150)		
MS_201401040007	Estrone	ND	100	104	ng/L	103	(60-140)		
MSD_201401040007	Estrone	ND	100	96.4	ng/L	96	(60-140)	40	7.6
LCS1	Ethinyl Estradiol - 17 alpha		100	108	ng/L	108	(60-140)		
LCS2	Ethinyl Estradiol - 17 alpha		100	112	ng/L	112	(60-140)	40	3.6
MBLK	Ethinyl Estradiol - 17 alpha			<5	ng/L				
MRL_CHK	Ethinyl Estradiol - 17 alpha		5.0	4.52	ng/L	91	(50-150)		
MS_201401040007	Ethinyl Estradiol - 17 alpha	ND	100	68.8	ng/L	69	(60-140)		
MSD_201401040007	Ethinyl Estradiol - 17 alpha	ND	100	62.8	ng/L	63	(60-140)	40	9.1
LCS1	Ethylparaben		400	378	ng/L	95	(60-140)		
LCS2	Ethylparaben		400	429	ng/L	107	(60-140)	40	13
MBLK	Ethylparaben			<20	ng/L				
MRL_CHK	Ethylparaben		20	24.5	ng/L	123	(50-150)		
MS_201401040007	Ethylparaben	ND	400	501	ng/L	122	(60-140)		
MSD_201401040007	Ethylparaben	ND	400	507	ng/L	124	(60-140)	40	1.2
LCS1	Gemfibrozil		100	87.7	ng/L	88	(60-140)		
LCS2	Gemfibrozil		100	115	ng/L	115	(60-140)	40	27
MBLK	Gemfibrozil			<5	ng/L				
MRL_CHK	Gemfibrozil		5.0	4.66	ng/L	93	(50-150)		
MS_201401040007	Gemfibrozil	34	100	145	ng/L	111	(60-140)		
MSD_201401040007	Gemfibrozil	34	100	144	ng/L	110	(60-140)	40	0.69
LCS1	Ibuprofen		200	175	ng/L	88	(60-140)		
LCS2	Ibuprofen		200	157	ng/L	79	(60-140)	40	11
MBLK	Ibuprofen			<15	ng/L				
MRL_CHK	Ibuprofen		10	13.0	ng/L	131	(50-150)		
MS_201401040007	Ibuprofen	ND	200	138	ng/L	69	(60-140)		
MSD_201401040007	Ibuprofen	ND	200	124	ng/L	62	(60-140)	40	11
LCS1	Iohexal		200	240	ng/L	120	(60-140)		
LCS2	Iohexal		200	177	ng/L	89	(60-140)	40	30
MBLK	Iohexal			<10	ng/L				
MRL_CHK	Iohexal		10	11.6	ng/L	116	(50-150)		
MS_201401040007	Iohexal	ND	200	255	ng/L	127	(50-150)		
MSD_201401040007	Iohexal	ND	200	272	ng/L	136	(50-150)	50	6.5

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Iopromide		100	134	ng/L	134	(60-140)		
LCS2	Iopromide		100	120	ng/L	120	(60-140)	40	11
MBLK	Iopromide			<5	ng/L				
MRL_CHK	Iopromide		5.0	4.93	ng/L	99	(50-150)		
MS_201401040007	Iopromide	ND	100	134	ng/L	131	(50-150)		
MSD_201401040007	Iopromide	ND	100	111	ng/L	109	(50-150)	50	19
LCS1	Isobutylparaben		100	110	ng/L	110	(60-140)		
LCS2	Isobutylparaben		100	110	ng/L	110	(60-140)	40	0.0
MBLK	Isobutylparaben			<5	ng/L				
MRL_CHK	Isobutylparaben		5.0	4.44	ng/L	89	(50-150)		
MS_201401040007	Isobutylparaben	ND	100	124	ng/L	124	(60-140)		
MSD_201401040007	Isobutylparaben	ND	100	123	ng/L	123	(60-140)	40	0.81
LCS1	Methylparaben		400	323	ng/L	81	(60-140)		
LCS2	Methylparaben		400	351	ng/L	88	(60-140)	40	8.3
MBLK	Methylparaben			<20	ng/L				
MRL_CHK	Methylparaben		20	15.1	ng/L	75	(50-150)		
MS_201401040007	Methylparaben	ND	400	484	ng/L	118	(60-140)		
MSD_201401040007	Methylparaben	ND	400	503	ng/L	123	(60-140)	40	3.9
LCS1	Naproxen		200	225	ng/L	113	(60-140)		
LCS2	Naproxen		200	212	ng/L	106	(60-140)	40	6.0
MBLK	Naproxen			<10	ng/L				
MRL_CHK	Naproxen		10	12.8	ng/L	128	(50-150)		
MS_201401040007	Naproxen	13	200	146	ng/L	66	(60-140)		
MSD_201401040007	Naproxen	13	200	150	ng/L	69	(60-140)	40	2.7
LCS1	Propylparaben		100	126	ng/L	126	(60-140)		
LCS2	Propylparaben		100	137	ng/L	137	(60-140)	40	8.4
MBLK	Propylparaben			<5	ng/L				
MRL_CHK	Propylparaben		5.0	3.10	ng/L	62	(50-150)		
MS_201401040007	Propylparaben	ND	100	111	ng/L	106	(60-140)		
MSD_201401040007	Propylparaben	ND	100	114	ng/L	110	(60-140)	40	3.5
LCS1	Sucralose		2000	1990	ng/L	100	(60-140)		
LCS2	Sucralose		2000	1620	ng/L	81	(60-140)	40	21
MBLK	Sucralose			<100	ng/L				
MRL_CHK	Sucralose		100	88.8	ng/L	89	(50-150)		
MS_201401040007	Sucralose	47000	2000	36100	ng/L	<u>0</u>	(60-140)		
MSD_201401040007	Sucralose	47000	2000	35400	ng/L	<u>0</u>	(60-140)	40	2.0
LCS1	Triclocarban		100	99.0	ng/L	99	(60-140)		
LCS2	Triclocarban		100	83.4	ng/L	83	(60-140)	40	17

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Triclocarban			<5	ng/L				
MRL_CHK	Triclocarban		5.0	3.44	ng/L	69	(50-150)		
MS_201401040007	Triclocarban	ND	100	68.1	ng/L	67	(60-140)		
MSD_201401040007	Triclocarban	ND	100	75.1	ng/L	74	(60-140)	40	9.8
LCS1	Triclosan		200	210	ng/L	105	(60-140)		
LCS2	Triclosan		200	246	ng/L	123	(60-140)	40	16
MBLK	Triclosan			<10	ng/L				
MRL_CHK	Triclosan		10	8.21	ng/L	82	(50-150)		
MS_201401040007	Triclosan	ND	200	210	ng/L	105	(60-140)		
MSD_201401040007	Triclosan	ND	200	215	ng/L	107	(60-140)	40	2.4
LCS1	Warfarin		100	110	ng/L	110	(60-140)		
LCS2	Warfarin		100	123	ng/L	123	(60-140)	40	11
MBLK	Warfarin			<5	ng/L				
MRL_CHK	Warfarin		5.0	3.83	ng/L	77	(50-150)		
MS_201401040007	Warfarin	ND	100	54.2	ng/L	<u>50</u>	(60-140)		
MSD_201401040007	Warfarin	ND	100	49.7	ng/L	<u>45</u>	(60-140)	40	8.7

QC Ref# 747448 - Nitrosamines by GCMS by EPA 521

Analysis Date: 01/20/2014

LCS3	NDMA-D6 (S)			87.2	%	87	(70-130)		
LCS4	NDMA-D6 (S)			77.2	%	77	(70-130)		
MBLK	NDMA-D6 (S)			79.6	%	80	(70-130)		
MRL_CHK	NDMA-D6 (S)			84.7	%	85	(70-130)		
MS2_201401140843	NDMA-D6 (S)			61.2	%	<u>61</u>	(70-130)		
MSD2_201401140843	NDMA-D6 (S)			66.2	%	<u>66</u>	(70-130)		
LCS3	N-Nitroso dimethylamine (NDMA)		80	61.9	ng/L	77	(70-130)		
LCS4	N-Nitroso dimethylamine (NDMA)		80	61.8	ng/L	77	(70-130)	30	0.32
MBLK	N-Nitroso dimethylamine (NDMA)			<2	ng/L				
MRL_CHK	N-Nitroso dimethylamine (NDMA)		2.0	2.17	ng/L	108	(50-150)		
MS2_201401140843	N-Nitroso dimethylamine (NDMA)	12	40	31.5	ng/L	<u>49</u>	(70-130)		
MSD2_201401140843	N-Nitroso dimethylamine (NDMA)	12	40	38.9	ng/l	<u>68</u>	(70-130)	30	21
LCS3	N-Nitrosodibutylamine (NDBA)		80	68.4	ng/L	86	(70-130)		
LCS4	N-Nitrosodibutylamine (NDBA)		80	65.6	ng/L	82	(70-130)	30	3.6
MBLK	N-Nitrosodibutylamine (NDBA)			<2	ng/L				
MRL_CHK	N-Nitrosodibutylamine (NDBA)		2.0	3.26	ng/L	<u>163</u>	(50-150)		
MS2_201401140843	N-Nitrosodibutylamine (NDBA)		40	29.6	ng/L	74	(70-130)		
MSD2_201401140843	N-Nitrosodibutylamine (NDBA)		40	32.6	ng/l	82	(70-130)	30	9.7
LCS3	N-Nitrosodiethylamine (NDEA)		80	61.8	ng/L	77	(70-130)		
LCS4	N-Nitrosodiethylamine (NDEA)		80	65.3	ng/L	82	(70-130)	30	5.2
MBLK	N-Nitrosodiethylamine (NDEA)			<2	ng/L				

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RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	N-Nitrosodiethylamine (NDEA)		2.0	2.02	ng/L	101	(50-150)		
MS2_201401140843	N-Nitrosodiethylamine (NDEA)		40	23.1	ng/L	<u>58</u>	(70-130)		
MSD2_201401140843	N-Nitrosodiethylamine (NDEA)		40	26.1	ng/L	<u>65</u>	(70-130)	30	12
LCS3	N-Nitrosodi-n-propylamin(NDPA)		80	61.6	ng/L	77	(70-130)		
LCS4	N-Nitrosodi-n-propylamin(NDPA)		80	66.6	ng/L	83	(70-130)	30	7.2
MBLK	N-Nitrosodi-n-propylamin(NDPA)			<2	ng/L				
MRL_CHK	N-Nitrosodi-n-propylamin(NDPA)		2.0	2.85	ng/L	142	(50-150)		
MS2_201401140843	N-Nitrosodi-n-propylamin(NDPA)		40	30.9	ng/L	77	(70-130)		
MSD2_201401140843	N-Nitrosodi-n-propylamin(NDPA)		40	38.4	ng/l	96	(70-130)	30	22
LCS3	N-Nitrosomethylethylamin(NMEA)		80	63.4	ng/L	79	(70-130)		
LCS4	N-Nitrosomethylethylamin(NMEA)		80	63.3	ng/L	79	(70-130)	30	0.48
MBLK	N-Nitrosomethylethylamin(NMEA)			<2	ng/L				
MRL_CHK	N-Nitrosomethylethylamin(NMEA)		2.0	1.79	ng/L	90	(50-150)		
MS2_201401140843	N-Nitrosomethylethylamin(NMEA)		40	23.2	ng/L	<u>58</u>	(70-130)		
MSD2_201401140843	N-Nitrosomethylethylamin(NMEA)		40	26.7	ng/L	<u>67</u>	(70-130)	30	14
LCS3	N-Nitrosomorpholine		80	68.8	ng/l	86	(70-130)		
LCS4	N-Nitrosomorpholine		80	73.4	ng/l	92	(70-130)	30	6.5
MBLK	N-Nitrosomorpholine			<2	ng/l				
MRL_CHK	N-Nitrosomorpholine		2.0	2.43	ng/l	121	(50-150)		
MS2_201401140843	N-Nitrosomorpholine		40	26.4	ng/l	<u>66</u>	(70-130)		
MSD2_201401140843	N-Nitrosomorpholine		40	35.2	ng/l	88	(70-130)	30	29
LCS3	N-Nitrosopiperidine (NPIP)		80	62.8	ng/L	79	(70-130)		
LCS4	N-Nitrosopiperidine (NPIP)		80	62.4	ng/L	78	(70-130)	30	0.96
MBLK	N-Nitrosopiperidine (NPIP)			<2	ng/L				
MRL_CHK	N-Nitrosopiperidine (NPIP)		2.0	2.16	ng/L	108	(50-150)		
MS2_201401140843	N-Nitrosopiperidine (NPIP)		40	23.6	ng/L	<u>59</u>	(70-130)		
MSD2_201401140843	N-Nitrosopiperidine (NPIP)		40	27.5	ng/l	<u>69</u>	(70-130)	30	15
LCS3	N-Nitrosopyrrolidine (NPYR)		80	63.2	ng/L	79	(70-130)		
LCS4	N-Nitrosopyrrolidine (NPYR)		80	67.0	ng/L	84	(70-130)	30	6.2
MBLK	N-Nitrosopyrrolidine (NPYR)			<2	ng/L				
MRL_CHK	N-Nitrosopyrrolidine (NPYR)		2.0	1.74	ng/L	87	(50-150)		
MS2_201401140843	N-Nitrosopyrrolidine (NPYR)		40	23.3	ng/L	<u>58</u>	(70-130)		
MSD2_201401140843	N-Nitrosopyrrolidine (NPYR)		40	28.5	ng/L	71	(70-130)	30	20

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

SUMMARY TABLE OF RESULTS PROVIDED BY EUROFINS

Table C-1: Phase I and Phase II Results Provided by Eurofins Eaton Analytical

	Potable Well	Point of Compliance Well			Injection Test Well	Class A+ Reclaimed Water				Raw Wastewater
Testing Phase	Phase I	Phase I	Phase II		Phase II	Phase I	Phase II			Phase I
Test Description			Mid-Test	End of Test	Pre-Inj		Pre-Inj	Mid-Test	End of Test	
Sample Date	1/24/13	1/24/13	11/12/13	1/3/14	8/27/13	1/24/13	10/17/13	11/12/13	1/3/14	1/24/13
1,7-Dimethylxanthine	ND	ND	ND	ND	ND	51	ND	ND	ND	22000
2,4-D	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nonylphenol ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-tert-Octylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	2900
Acesulfame-K	ND	170	180	210	31	140	220	290	440	56000
Acetaminophen	ND	ND	ND	ND	ND	ND	ND	ND	15	170000
Albuterol	ND	ND	ND	ND	ND	ND	ND	11	14	ND
Amoxicillin ¹	ND	ND	ND	ND	ND	1200	63	ND	560	9200
Androstenedione	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atenolol	ND	ND	ND	ND	ND	220	18	43	49	1800
Atrazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Azithromycin	ND	ND	ND	ND	ND	ND	400	ND	ND	ND
Bendroflumethiazide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bezafibrate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BPA	ND	320	390	730	ND	ND	ND	ND	ND	340
Bromacil	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butalbital	ND	ND	ND	ND	ND	63	ND	ND	65	ND
Butylparaben	ND	ND	ND	ND	ND	ND	ND	ND	ND	24
Caffeine	ND	ND	ND	ND	ND	81	85	70	70	170000
Carbadox	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbamazepine	ND	ND	ND	ND	ND	500	240	2500	170	160
Carisoprodol	ND	ND	ND	ND	ND	140	110	100	180	66
Chloramphenicol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloridazon	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotoluron	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cimetidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Clofibrilic Acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cotinine	ND	ND	ND	ND	ND	30	44	30	20	2700

Table C-1: Phase I and Phase II Results Provided by Eurofins Eaton Analytical

	Potable Well	Point of Compliance Well			Injection Test Well	Class A+ Reclaimed Water				Raw Wastewater
Testing Phase	Phase I	Phase I	Phase II		Phase II	Phase I	Phase II			Phase I
Test Description			Mid-Test	End of Test	Pre-Inj		Pre-Inj	Mid-Test	End of Test	
Sample Date	1/24/13	1/24/13	11/12/13	1/3/14	8/27/13	1/24/13	10/17/13	11/12/13	1/3/14	1/24/13
Cyanazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DACT	ND	ND	5	ND	ND	ND	ND	ND	ND	ND
DEA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEET	ND	ND	ND	ND	ND	ND	37	13	34	150
Dehydronifedipine	ND	ND	ND	ND	ND	ND	98	53	62	ND
DIA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diazepam	ND	ND	ND	ND	ND	6	ND	ND	ND	ND
Diclofenac	ND	ND	ND	ND	ND	21	9	12	ND	26
Dilantin	ND	ND	ND	ND	ND	56	78	76	62	51
Diatazem	NA	NA	ND	ND	NA	NA	100	47	12	NA
Diuron	ND	ND	ND	ND	ND	ND	ND	ND	46	ND
Erythromycin	ND	ND	ND	ND	ND	26	ND	ND	ND	660
Estradiol	ND	ND	ND	ND	ND	ND	ND	ND	ND	13
Estrone	ND	ND	ND	ND	ND	ND	ND	ND	ND	53
Ethinyl Estradiol - 17 alpha	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylparaben	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flumequine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoxetine	ND	ND	ND	ND	ND	42	16	ND	23	ND
Gemfibrozil	ND	ND	ND	ND	ND	30	ND	8	34	4400
Ibuprofen	ND	ND	ND	ND	ND	ND	ND	ND	ND	12000
Iohexal	ND	ND	ND	ND	ND	53	14	11	ND	75
Iopromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isobutylparaben	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isoproturon	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ketoprofen	ND	ND	ND	ND	ND	ND	ND	ND	ND	150
Ketorolac	ND	ND	ND	ND	ND	ND	ND	ND	ND	33
Lidocaine	ND	ND	ND	ND	ND	190	150	180	110	250
Lincomycin	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
Linuron	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table C-1: Phase I and Phase II Results Provided by Eurofins Eaton Analytical

	Potable Well	Point of Compliance Well			Injection Test Well	Class A+ Reclaimed Water				Raw Wastewater
Testing Phase	Phase I	Phase I	Phase II		Phase II	Phase I	Phase II			Phase I
Test Description			Mid-Test	End of Test	Pre-Inj		Pre-Inj	Mid-Test	End of Test	
Sample Date	1/24/13	1/24/13	11/12/13	1/3/14	8/27/13	1/24/13	10/17/13	11/12/13	1/3/14	1/24/13
Lopressor	ND	ND	ND	ND	ND	490	160	190	250	970
Meclofenamic Acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Meprobamate	ND	ND	ND	ND	ND	130	240	95	100	470
Metazachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylparaben	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metolachlor	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA
Naproxen	ND	ND	ND	ND	ND	ND	ND	ND	13	7700
Nifedipine	ND	ND	ND	ND	ND	ND	ND	ND	ND	210
N-Nitrosodibutylamine	ND	ND	ND	ND	ND	ND	ND	ND	2	ND
N-Nitrosodiethylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-dimethylamine	ND	ND	ND	ND	ND	ND	ND	ND	6	ND
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	ND	ND	4	ND
N-Nitrosomethylethylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosomorpholine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosopiperidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	7
N-Nitrosopyrrolidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Norethisterone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oxolinic acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentoxifylline	ND	ND	ND	ND	ND	ND	ND	ND	ND	40
Phenazone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Primidone	ND	ND	ND	ND	ND	110	85	160	160	95
Progesterone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylparaben	ND	ND	ND	ND	ND	ND	ND	ND	ND	590
Quinoline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Simazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sucralose	ND	ND	ND	ND	ND	43000	33000	45000	47000	38000
Sulfachloropyridazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfadiazine	ND	ND	ND	ND	ND	ND	ND	ND	10	ND

Table C-1: Phase I and Phase II Results Provided by Eurofins Eaton Analytical

	Potable Well	Point of Compliance Well			Injection Test Well	Class A+ Reclaimed Water				Raw Wastewater
Testing Phase	Phase I	Phase I	Phase II		Phase II	Phase I	Phase II			Phase I
Test Description			Mid-Test	End of Test	Pre-Inj		Pre-Inj	Mid-Test	End of Test	
Sample Date	1/24/13	1/24/13	11/12/13	1/3/14	8/27/13	1/24/13	10/17/13	11/12/13	1/3/14	1/24/13
Sulfadimethoxine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamerazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethizole	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfamethoxazole	ND	ND	ND	ND	ND	350	900	830	560	1100
Sulfathiazole	ND	ND	ND	ND	ND	ND	ND	ND	10	ND
TCEP	ND	ND	ND	ND	ND	270	130	190	170	740
TCPP	ND	ND	ND	ND	ND	470	270	350	210	220
TDCPP	ND	ND	ND	ND	ND	460	140	240	120	200
Testosterone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theobromine	ND	ND	ND	ND	ND	640	ND	ND	ND	140000
Theophylline	ND	ND	ND	ND	ND	160	ND	210	110	14000
Triclocarban	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA
Triclosan	ND	ND	ND	ND	ND	ND	ND	ND	ND	160
Trimethoprim	ND	ND	ND	ND	ND	100	ND	ND	43	350
Warfarin	ND	ND	ND	ND	ND	ND	ND	ND	ND	7

Notes:

(1) Concentrations reported for 4-nonylphenol and amoxicillin are considered semi-quantitative.