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MAY 29 2019

May 24, 2019

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Christopher Hazeltine
City Manager
City of Poway
13325 Civic Center Drive
Poway, California 92064

Re: Notice of Violations and Intent to Sue under the Clean Water Act, 33 U.S.C. § 1251 et seq.

Through counsel, Poway landowner[1] Ex. 6 for personal privacy notifies you of his intent to update his citizen lawsuit against the City of Poway with additional claims in an amended complaint and to file supplemental pleadings setting out claims based on facts that occurred after the original pleading was filed on November 15, 2018 over ongoing violations of the Clean Water Act (CWA) and the San Diego Regional MS4 Permit, Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100. The City of Poway is the owner and operator of Lake Poway and the Lake Poway Recreation Area which includes the City-owned MS4 which receives discharges of stormwater, non-storm spring waters, rising groundwaters, and unpermitted dredged and fill materials from the City's activities as well from residents of Warren Canyon upstream of Lake Poway under the City of Poway's jurisdiction. The City of Poway is ultimately responsible for all of these discharges into and from its MS4 into receiving waters including into Lake Poway which has been deemed "Waters of the United States" by the EPA and the State of California. Under its MS4 Permit, the City of Poway is also responsible for exceedances of the effluent standards and limitations for phosphorous and the nutrient rich non-storm water that is being discharged into its MS4 and into Lake Poway on a daily basis during the times of the year when there is stream flow through Warren Canyon. In 2019, Warren Creek has had consistent stream flow since February 5, 2019, 24 hours a day, 7 days a week, persisting to the present day. More than 90% of the time, the permitted MS4 contribution of phosphorous into Warren Creek and into Lake Poway (0.1 mg/L maximum daily action level (MDAL)) has been exceeded, oftentimes at levels double the amount allowed by the City's MS4 Permit and the San Diego's Basin Plan.[2] One of the main sources of

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[1] Personal Privacy ex. (b)(6) of Poway: Personal Privacy ex. (b)(6) These par Ex. 6 for personal privacy, Ex. 6 for personal privacy. He can be reached at Ex. 6 for personal privacy or via email at Ex. 6 for personal privacy.

[2] Similarly, in 2017, phosphorous levels in the discharges from the Fisherman Footbridge, located

soluble phosphorous into the City of Poway's MS4 is from Kelly Spring, located at 32.9998 Latitude, -116.9749 Longitude, which is under the City of Poway's jurisdiction and on [redacted] Ex. 6 for personal privacy's property. Over the last 50 years, including as recently as 2016, the residents of Warren Canyon have altered the wetland system surrounding Kelly Spring, resulting in the loss of its phosphorous-retention capacity. Other wetland systems in Warren Canyon including on the City owned property surrounding Warren Crossing, located at 33.003 Latitude, -117.006 Longitude, have also lost their pollutant-retention capacity as a direct result of anthropogenic activity. The City of Poway's MS4 Permit and Jurisdictional Runoff Management Plan (JRMP) require it to minimize spring water flows containing pollutants[3] into its MS4 through rehabilitating damaged streams and re-establishing wetlands[4] to address and reduce the non-storm water that is a source of pollutants aggravating a condition of pollution in Warren Creek and in Lake Poway. A condition of pollution has been occurring in Warren Creek and in Lake Poway over the last fifty years, which was recently highlighted in 2017 when a massive winter storm resulted in the destruction of approximately ten man-made conveyances (e.g., dirt backfilled culverts) throughout Warren Canyon in the City of Poway, with the unpermitted waste being deposited in downstream portions of Warren Creek including Lake Poway. Neither the residents of Warren Canyon nor the City of Poway obtained the proper CWA permits for the man-made conveyances (point-source stream crossings) built over Warren Creek that were blown out by the massive amount of storm water runoff that occurred in 2017. Some residents of Warren Canyon rebuilt these manmade conveyances after the winter storms of 2017 without the proper CWA permits and water quality certifications from the San Diego Water Board.[5] Even the City of Poway failed to obtain the proper CWA permits and water quality certifications for its rebuilding activities in Warren Creek and Lake Poway in 2017, including the Warren Crossing project as well as the boat dock replacement project within the navigable portion of its receiving waters. The condition of pollution occurring in Warren Canyon has caused and threatened to cause the loss of water storage capacity of Lake Poway, a drinking water reservoir. The condition of pollution occurring in Lake Poway has also caused and threatened to cause eutrophication in fishable Lake Poway from the nutrient-rich sediment and nutrient-rich non-storm water flows coming through the City's MS4, threatening to accelerate swamp-like conditions in Lake Poway. (See Exhibit 1.) For these reasons and the reasons discussed below, [redacted] Ex. 6 for personal privacy intends to update his citizen lawsuit[6] against the City of Poway at the expiration of sixty days from the date of this letter and will seek declaratory and injunctive relief, civil penalties, and all other relief authorized by law for these violations.

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at 33.0039 Latitude, -117.0070 Longitude, to Lake Poway exceeded the MDAL more than 90% of the time between January 27, 2017 and April 15, 2017.

[3] The 2013 MS4 Permit, C-8, defines "pollutant" as follows: "Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated." Caltrans's MS4 permit has a more limited definition of "pollutant."

[4] According to the San Diego Water Board, re-establishment means the manipulation of the physical, chemical, and/or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

[5] Obtaining CWA permits is not merely a procedural requirement; properly engineered structures that could withstand a 100-year storm – i.e. something other than a dirt-backfilled culvert system – would have been built throughout Warren Canyon if Warren Canyon residents and the City of Poway obtained valid permits approved by the San Diego Water Board.

[6] In the alternative, [redacted] Ex. 6,personal privacy reserves the right to file a separate lawsuit, through counsel, over any of the claims set forth in this letter.

I. Background

Lake Poway is within the San Dieguito River (SDR) Watershed Management Area (WMA) which encompasses a total of 346 square miles of urban land and open space extending from San Dieguito Lagoon in the west to Volcan Mountains in the east. Small creeks drain downstream into the San Dieguito River, then into the San Dieguito Lagoon, and finally into the Pacific Ocean. In comparison, the subwatershed area that feeds Lake Poway itself, which has been deemed "waters of the United States" (WOTUS) by the Environmental Protection Agency (EPA) and the State of California, is quite small, encompassing only 1200 acres or less than 2 square miles of the entire SDR watershed. The lake is mainly fed by two headwater intermittent streams draining Mount Woodson and Rock Haven, natural mountain springs that feed these intermittent streams, and a series of separate smaller tributaries that drain other portions of the surrounding mountainsides directly into the reservoir. At the Boulder Bay area of Lake Poway, the main fourth-order intermittent stream feeding the reservoir is known as Warren Creek; collectively, all surrounding drainage into Lake Poway, including Warren Creek, is known as Warren Canyon. The City of Poway has at least two National Pollutant Discharge Elimination System (NPDES) permits for discharges into Lake Poway, including the 2013 municipal separate storm sewer systems (MS4) Permit – the 2013 MS4 Permit – for point-source discharges from Warren Creek and Warren Canyon into Lake Poway issued by the San Diego Water Board.[7] Fulfilling certain requirements of the 2013 MS4 Permit, the City of Poway has an approved Jurisdictional Runoff Management Plan (JRMP) specific to the City of Poway and, along with five other municipalities within the SDR WMA, an approved Water Quality Improvement Plan (WQIP).

II. THE CITY OF POWAY HAS NOT ADDRESSED ILLEGAL DISCHARGES OF DREDGED AND FILL MATERIALS INTO ITS MS4 AND INTO LAKE POWAY.

Poway has discharged and continues to discharge unreasonable amounts of sedimentation pollution waste (and other assimilated pollutants in storm water and non-storm water) from its MS4 in a manner that is causing, or threatening to cause, a condition of pollution – i.e. the loss of municipal storage capacity, harm to recreational activities such as fishing, and harm to aquatic species through eutrophication – in Lake Poway, a receiving water of the state and WOTUS, in violation of its 2013 MS4 Permit, Provision A.1.a. Poway's discharges (including the discharges of third parties within and under its jurisdiction) that are causing a condition of pollution in Lake Poway are inherently in violation of the waste discharge prohibitions incorporated in the San Diego Water Board's Basin Plan in violation of Provision A.1.c.

NPDES MS4 Permits are contracts, and they are to be interpreted as contracts. Nat. Res. Def. Council v. County of L.A., 725 F.3d 1194, 1204-05 (9th Cir. 2013). "The plain language of CWA § 505 authorizes citizens to enforce *all* permit conditions" in such contracts. Nw. Envtl. Advocates v. City of Portland, 56 F.3d 979, 986 (9th Cir. 1995) (emphasis in original). The Ninth Circuit has held that Congress authorized enforcement of state water-quality standards in MS4 permits, "lest municipalities be immunized on the technicality that not all water standards can be expressed as effluent limitations."[8] Nat. Res. Def. Council v. County of L.A., 673 F.3d 880, 886 (9th Cir. 2011)

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[7] The City of Poway also has a NPDES permit for copper-based algaecides injections used to combat eutrophication within Lake Poway issued by the State Water Board.

[8] Ninth Circuit case law "emphasizes that NPDES permit enforcement is not scattershot – each

(rev'd on other grounds and remanded by 133 S. Ct. 710 (2013)). "Only by enforcing the water-quality standards themselves" in an MS4 Permit ensures that the "gross amount of pollution discharged" from "uncontrollable storm events" will be addressed by a municipality with improved water quality improvement strategies, even a city that may be in general compliance with technology based effluent limitations as outlined in an approved JRMP.[9] See Natural Resources, 673 F.3d at 886. And the CWA "does not distinguish between those who add [pollutants] and those who convey what is added by others – the Act is indifferent to the originator of water pollution." Id. By virtue of collecting and channeling stormwater and non-storm water through municipality-owned culverts and other conveyances, a city assumes responsibility under the CWA for receiving such pollutants from others through its point sources.[10] See Committee to Save v. East Bay Municipal Util. Dist., 13 F.3d 305 (9th Cir. 1993).

As described by the EPA, water quality criteria "can be . . . narrative (e.g., a criterion that describes the desired conditions of a water body being 'free from' certain negative conditions)" in form. EPA, WQS Handbook, Chapter 3; see 2013 MS4 Permit, F-16. Water quality standards as defined in CWA § 303(c) consists of the beneficial uses (e.g., recreational activities such as fishing, municipal drinking water supply, etc.) of a water body and water quality objectives necessary to protect those uses. Moreover, a condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired by waste.[11] 2013 MS4 Permit, C-11–C-12; Cal. Water Code § 13050(l). Waste broadly "encompasses any substance whose formation was caused by human activity or whose path through the ecosystem is controlled or affected by human agency." Karl Phaler, Water Quality Control in California, 1 Ecology L.Q. 400, 406 (1971).[12] The San Diego Water Board Basin Plan prohibits the following "waste" discharges: 1) Discharge of pollutants or dredged or fill material to waters of the United States except as authorized by a NPDES permit or a dredged or fill material permit; 2) Discharge of waste to inland surface waters in a manner causing a condition of pollution; 3) Discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger; 4) The dumping, deposition, or discharge of waste directly into waters of the state or adjacent to such waters in any

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permit term is simply enforced as written." L.A., 673 F.3d at 886.

[9] See Sierra Club v. Union Oil, 813 F.2d 1480, 1491 (9th Cir. 1987) ("It is unclear whether the court intended to excuse these violations under the upset defense or under a de minimus theory. In either event, the district court erred. The Clean Water Act and the regulations promulgated under it make no provision for 'rare' violations.")

[10] The City of Poway is ultimately responsible for regulating the activity of its citizens in Warren Canyon; according to the CWA, the implementing permits, and case law, Poway cannot continue to turn a blind eye to the illegal activity occurring there.

[11] Under the Dickey Act, 'pollution' means an impairment of the quality of the waters of the State by . . .waste to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such waters for domestic, industrial, agricultural, navigational, recreational or other beneficial use. Dickey Act, Ch. 1549, § 1, [1949] Cal. Stat. 2782, as amended, ch. 603, § 1, [1957] Cal. Stat. 1815. The updated Porter-Cologne Act does not require that an adverse effect be shown. Cal. Water Code § 13241.

[12] Under the Dickey Act, earth eroded from tractor trails and the deposition of fine-grained particles which affect fish and other aquatic life and reservoir capacity constituted waste discharge. Under the Porter-Cologne Act, it was the legislators' intent to include the prior constructions of waste in the new definition of waste. Cal. State Water Resources Control Board, Study Panel Report, App. A, at 23-24 (1969).

manner which may permit its being transported into the waters; 5) Discharge of waste into a natural or excavated site below historic water levels; and 6) Discharge of sand, silt, clay or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect or threaten to affect beneficial uses of such waters. 2013 MS4 Permit, A-1–A-2. The reasonableness of a waste discharge is question of fact.[13]

In the City of Poway, anthropogenic sources of pollutants—namely unpermitted discharges of dredged and fill materials placed around culverts by the City and by private third parties in Warren Canyon in the past 50 years to the present – have become mobilized and discharged into the mouth and other portions of Warren Creek and into Lake Poway as an unreasonable amount of waste from and through Poway's point sources in violation of its 2013 MS4 Permit. The approximate location of the washed-out, unpermitted point sources as a result of the February 2017 winter storms in Warren Canyon are as follows:

1) 33.001298, -117.003004 (APN: 278-290-1100);
2) 32.998925, -116.998575 (APN: 278-300-5000);
3) 32.998802, -116.997127 (APN: 278-300-5900);
4) 33.001296, -117.003004 (APN: 278-290-0600);
5) 32.999, -116.996 (APN: 278-200-1900);
6) 32.999262, -116.993403 and 32.998869, -116.996763 (APN: 278-200-0700);
7) 32.998671, -116.981069 (APN: 278-200-0200);
8) 32.998204, -116.977989 (APN: 278-210-1500);
9) 32.9980, -116.9761 (APN: 278-210-1800);
10) 32.9990, -116.9756 (APN: 278-210-1800);
11) 32.998103, -116.976631 (APN: 278-210-1600);
12) 32.9992, -117.0003 (APN: 278-300-6000); and
13) 33.0030, -117.0057 (APN: 278-280-2300).

These unpermitted discharges have caused and are causing a condition of pollution in Lake Poway. The man-made conveyances in Warren Canyon mentioned above were mostly washed out on (or around) February 27, 2017 and again on (or around) February 14, 2019. The pollution is ongoing because the waste remains in the mouth and other portions of the creek and has become further and further discharged into the reservoir with each passing year and each large storm event and because waste – i.e. unauthorized discharges such as unpermitted dredged and fill and earth eroded from tractors – has been subsequently added to Warren Creek by the City and by other Poway residents of Warren Canyon after the winter storms of 2017.[14] Lake Poway is being affected by waste to the extent that the reservoir is regularly losing its storage capacity, even more dramatically as shown after the February 14, 2019 winter storms (see Exhibit 2), and recreational activities such as fishing are being impaired because of deleterious bottom deposits removing fishing spots and causing turbidity, eutrophication, and coloration of the waters from iron, nitrogen, and phosphorous-rich

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[13] The Ninth Circuit has held that the terms of an NPDES permit, where ambiguous on its face, raises issues of fact. Northwest Environmental Advocates v. City of Portland, 56 F.3d 979, 982 (9th Cir. 1995).

[14] The following parcels have unpermitted rebuilt crossings constructed after the winter 2017 storms: APNs: 278-200-0700; 278-200-1900; 278-280-2300; 278-290-1100; 278-300-5900; 278-290-0600; 278-210-1500; 278-300-6000; 278-200-0200; and 278-300-5000.

water and sediment. The effects of these discharges are the overabundance of harmful cyanobacteria and other algal blooms occurring in Lake Poway, the closure of certain portions of Lake Poway including at Hidden Bay due to swamp-like conditions, the use of harmful copper-based algaecides, and the forced reduction of the water levels and the storage capacity of Lake Poway due to the waste blockage and resulting effects.

While Provision B.3.c of the 2013 MS4 Permit provides an option that allows a Copermittee to utilize the watershed-based water quality improvement plan to be deemed in compliance with the prohibitions and limitations of Provisions A.1.a and A.1.c, Poway has not submitted a WQIP that follows the rigorous requirements of Provision B.3.c with respect to the types of non-bacterial pollutants that are being addressed in this letter and cannot prove that it has been deemed in compliance with Provisions A of the 2013 MS4 Permit with regard to Warren Canyon and Lake Poway. The bottom line is that Poway is not shielded from liability for the portion of the 20,000 tons of sediment that is "waste" that has been built up in the Boulder Bay area of Lake Poway over the years from illegal, unpermitted activity in Warren Canyon. The City must clean it up.

III. SPRING WATER DISCHARGES OF NUTRIENT RICH WATERS INTO THE CITY OF POWAY'S MS4 THAT EXCEED NALs MUST BE ADDRESSED.

Poway's 2013 MS4 Permit requires that the non-storm spring water that flows into its MS4 and from its MS4 to Lake Poway must be properly addressed through the effective enforcement and implementation of various provisions of the City's 2013 MS4 Permit, particularly the discharge prohibitions and receiving water limitations of Provisions A.1.a., A.1.b., A.1.c., and A.2.a, the adaption of monitoring and assessment program and updates to the water quality improvement plan described in Provision B.5., and the illicit discharge detection and elimination requirements of Provision E.2. The City of Poway has identified in the public record that spring water flows in its MS4 and reaches Lake Poway, and Poway's JRMP has identified the following pollutants coming from its MS4 in Warren Canyon: Indicator Bacteria, Color, Manganese, Mercury, Nitrogen, pH, Phosphorous, Viruses, Turbidity, and Nutrients. The non-storm spring water discharges of pollutants into Lake Poway have recurred seasonally because waste from washed-out unpermitted culvert crossings remains in the creek/MS4 and because non-storm spring water assimilates pollutants from various unpermitted (and illicit) point-source culvert crossings in Warren Canyon, leading to the non-storm water discharge of sediment and other pollutants into Lake Poway. Moreover, discharges of non-storm spring water directly from Rock Haven (Rock Haven Spring) and from Mount Woodson (Kelly Spring) into the City of Poway's MS4 and into Lake Poway are also themselves sources of soluble phosphorous, nitrogen, and iron pollutants aggravating a condition of pollution in Lake Poway. Because Warren Canyon and Lake Poway are City-designated Environmentally Sensitive Areas and because these areas are being fed with non-storm water discharges containing pollutants exceeding non-storm water action levels (NALs) on a regular basis during the winter and spring months of non-drought years as shown in the exhibits attached to this letter, the City of Poway must address these flows as a priority concern as required by Provisions B.5 and E.2.d and must use the resources that it most definitely has to reduce these flows as required by Provision E.2.a.(7) as well as the City of Poway's JRMP (BMP #11). The City of Poway, though inadvertently identifying that groundwater containing pollutants comes from Warren Canyon into its MS4, has not minimized the polluted spring water before it flows into its MS4 by undertaking feasible projects such as constructing water-trapping weirs and repairing wetlands damaged by humans upstream of the lake. If Poway chooses not to address the non-storm spring waters that are contributing pollutants to Lake Poway as required by the 2013 MS4 Permit, the City must then

obtain a separate NPDES permit for the discharges.

Under its 2013 MS4 Permit and its terms, the City of Poway is responsible for exceedances of the effluent standards and limitations for phosphorous and the nutrient rich non-storm water that is being discharged into its MS4 and into Lake Poway on a daily basis during the times of the year when there is stream flow through Warren Canyon. In 2019, Warren Creek has had consistent stream flow since February 5, 2019, 24 hours a day, 7 days a week, persisting to the present day. More than 90% of the time, the permitted MS4 contribution of phosphorous into Warren Creek and into Lake Poway (0.1 mg/L maximum daily action level (MDAL)) has been exceeded, oftentimes at levels double the amount allowed by the City's Permit and the San Diego's Basin Plan.[15] One of the main sources of soluble phosphorous into the City of Poway's MS4 is from Kelly Spring, located at 32.9998 Latitude, -116.9749 Longitude, which is under the City of Poway's jurisdiction. Over the last 50 years, including as recently as 2016, the residents of Warren Canyon have altered the wetland system surrounding Kelly Spring, resulting in the loss of its phosphorous-retention capacity. (See Exhibit 3). Other wetland systems in Warren Canyon including on the City owned property surrounding Warren Crossing, located at 33.0030 Latitude, -117.0057 Longitude, have lost their pollutant-retention capacity as well. The City of Poway's MS4 Permit and JRMP require it to minimize spring water flows into its MS4 through rehabilitating damaged streams and re-establishing wetlands to address and reduce the non-storm water that is a source of pollutants aggravating a condition of pollution in Warren Creek and in Lake Poway, both receiving waters of the United States. A condition of pollution has been occurring in Warren Creek and in Lake Poway over the last fifty years, which was recently highlighted in 2017 when a massive winter storm resulted in the destruction of approximately ten man-made conveyances (e.g., dirt backfilled culverts) throughout Warren Canyon in the City of Poway, with the unpermitted waste being deposited in downstream portions of Warren Creek including at Lake Poway. Neither the residents of Warren Canyon nor the City of Poway obtained the proper CWA permits for the man-made conveyances built over Warren Creek that were blown out by the massive amount of storm water runoff that occurred in 2017. Some residents of Warren Canyon rebuilt these manmade conveyances after the winter storms of 2017 without the proper CWA Section 404 permits and water quality certifications or waste discharge requirements from the San Diego Water Board. Even the City of Poway failed to obtain the proper CWA permits and water quality certifications for its rebuilding activities in Warren Creek and Lake Poway in 2017, including its Warren Crossing project located at 33.0030 Latitude, -117.0057 Longitude and its boat dock replacement project located at 33.0069 Latitude, -117.0123 Longitude within the navigable portion of its receiving waters. The condition of pollution occurring in Warren Canyon has caused and threatened to cause the reduction of the storage capacity of Lake Poway, a drinking water reservoir. The condition of pollution occurring in Lake Poway has also caused and threatened to cause eutrophication in fishable Lake Poway from the nutrient-rich sediment and nutrient-rich non-storm water flows coming from the City's MS4, threatening to accelerate swamp-like conditions in Lake Poway. (See Exhibit 1.)

In previous iterations of the MS4 permits for the San Diego region, certain discharges or flows of non-storm water were "simply listed and referred to as categories of non-storm water discharges 'not prohibited' unless identified as a source of pollutants." 2013 MS4 Permit, F-89. However, the federal NPDES regulations "do not specifically state that such discharges are 'not prohibited' or

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[15] Similarly, in 2017, phosphorous levels in the discharges from the Fisherman Footbridge located at 33.0039 Latitude, -117.0070 Longitude, to Lake Poway exceeded the MDAL more than 90% of the time between January 27, 2017 and April 15, 2017.

'exempt' or in any way authorized." Id. In the updated 2013 MS4 Permit, all non-storm water discharges must, at a minimum, comply with the discharge prohibitions and receiving water limitations of Provision A.1.a and A.2.a. 2013 MS4 Permit, F-68. For spring water discharges, the non-storm water action levels (NALs) of Provision C.1 are to be used to determine if the spring water is a source of pollutants aggravating a condition of pollution in receiving waters.[16] Exceedances of the NALs would then provide an indication of the relative severity of a pollutant in non-storm water discharges from the MS4 contributing to potential or observed receiving water quality impacts.

In addition to meeting Provisions A.1.a and A.2.a, the City must fulfill Provision A.1.b which requires that non-storm water discharges be effectively prohibited through the implementation of Provision E.2. 2013 MS4 Permit, at 17. Provision E.2.a of the City's 2013 MS4 Permit requires each Copermittee to address all types of non-storm water discharges into its MS4 as illicit discharges, unless the discharge is authorized by a separate NPDES permit or identified as a category of non-storm water discharges or flows that must be addressed pursuant to the requirements of Provision E.2.a.(1)-(7). For spring water flows under Provision E.2.a.(3), only non-storm spring water discharges not identified under a separate NPDES permit and not identified as a source of pollutants do not have to be addressed as illicit discharges. 2013 MS4 Permit, F-89. Under Provision E.2.a.(6), if the Copermittee or the San Diego Water Board identifies any category of non-storm water discharges such as spring water as a source of pollutants to receiving waters, the category must be prohibited through ordinance, order, or similar means and addressed as an illicit discharge. Alternatively under Provision E.2.a.(6), the City of Poway may propose controls to be implemented for the category of non-storm water discharges as part of an updated WQIP instead of prohibiting the category of non-storm water discharges, and implement the controls if accepted by the San Diego Water Board as part of an updated WQIP.[17] Id. In addition to the conditions of Provision E.2.a.(6), "Provision E.2.a.(7) has been included in the requirements for non-storm water discharges to clarify that any non-storm water discharges to the Copermittee's MS4, even those identified pursuant to Provision E.2.a.(1) through E.2.a.(4) [i.e. spring water], must be reduced or eliminated, unless a non-storm water discharge is identified as a discharge authorized by a separate NPDES permit." 2013 MS4 Permit, F-96. The mandate of Provision E.2.a.(7) for the reduction or elimination of spring water discharges into the MS4 is expected to be completed "where feasible and priorities and resources allow" unless the City obtains a separate NPDES permit for the discharges.[18]

Furthermore, Provision E.2.d describes the measures that the City must take to investigate and eliminate illicit discharges to the MS4. Provision E.2.d.(1) requires the City to "prioritize and determine when follow-up investigations will be performed in response to visual observations . . . of a detected non-storm water **or** illicit discharge to or from the MS4 . . . causing or contributing, or threatening to cause or contribute to impairments in water bodies . . . in environmentally sensitive areas (ESAs)." 2013 MS4 Permit, Provisions E.2.d.(1) and E.2.d.(1)(b). The City is also required to do the same for "[p]ollutants identified as causing or contributing to an exceedance of a NAL." Provision E.2.d.(1)(d), id. at 90. Under Provision E.2.d.(2), the City is also required to

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[16] The NALs of Provision C.1 are incorporated into the City of Poway's JRMP.

[17] Rehabilitating streams and repairing wetlands are the types of "controls" contemplated by the 2013 MS4 Permit to reduce flows to the MS4 and retain pollutants in those flows.

[18] Again, rehabilitating streams and repairing (re-establishing) wetlands are the types of controls contemplated by the 2013 MS4 Permit to "reduce" flows and retain pollutants in those flows before they reach the City's MS4.

respond to a citizen's reports of non-storm water flows within Warren Canyon and the resulting polluted non-storm water discharges into Lake Poway with its own investigation and must maintain records of the discharges and their sources. Id. Under Provision E.2.d.(3), those spring water discharges that are in exceedance of NALs must either be addressed through its Enforcement Response Plan or the category must be addressed according to Provision E.2.a.(6). Id. at 91-92. Under Provision E.2.c., the City of Poway must conduct field screening of portions of its MS4 containing non-storm water in accordance with the dry weather monitoring requirements of Provision D. Id. at 89. Finally, under Provision E.2.d.(4), each Copermittee must submit a summary of all detected non-storm water discharges with each WQIP annual report required by Provision F. Id. at 92.

The pollutants present in the spring water from Kelly Spring and from Rock Haven Spring, including the assimilated sediment pollutants from unpermitted culvert crossings and unpermitted wetlands damage in Warren Canyon from tractors (anthropogenically influenced sources), have been added to Lake Poway through a point source (including through Fisherman's Footbridge located at 33.0039 Latitude, -117.007 Longitude) and have aggravated a condition of eutrophication pollution and waste blockage pollution in the reservoir. And even if no one from the City has never explicitly identified the spring water as a source of pollutants through its MS4 in Warren Canyon, the 2013 MS4 Permit still requires the City to reduce or eliminate non-storm water discharges such as water from springs to the MS4, where feasible and when priorities and resources allow,[19] unless the City obtains a separate NPDES permit for the non-storm water discharges. 2013 MS4 Permit, Provision E.2.a.(7). In other words, there is no requirement in Provision E.2.a.(7) of the 2013 MS4 Permit that the City or the San Diego Water Board specifically identify the spring water as "a source of pollutants to receiving waters;" if a citizen can prove that the City has failed to implement the various requirements of Provision E.2.d of its 2013 MS4 Permit that would have uncovered the pollutants in the spring water or has failed to respond to valid reports of non-storm water containing pollutants through its MS4, he can in turn seek the enforcement of Provision E.2.a.(7) through a citizen enforcement action.[20] The spring water with assimilated pollutants can feasibly be reduced before it enters the City's MS4 through wetland repair projects in Warren Canyon; the City of Poway has the resources to put the plans into place; and the non-storm water discharges into Lake Poway must be addressed as a "priority" as that term is defined in the 2013 MS4 Permit, including Provisions E.2.d. Even though the City of Poway has not yet included the discharges from Warren Canyon into Lake Poway as an area of priority concern in its current WQIP, Poway would have identified the persistent dry weather flows in Warren Canyon – the non-storm spring water discharges – as a "source of pollutants to receiving waters" had it been adhering to the requirements of Provision E.2.d and other sections of the MS4 Permit. As Poway has not used the alternative compliance pathway as outlined in Provision B.3.c with respect to its non-stormwater discharges of polluted sediment and spring water flows containing pollutants aggravating a condition of pollution in receiving waters in the SDR watershed, Poway must implement Provision E.2 and properly address the discharges from Kelly Spring and Rock Haven Spring into its MS4. See Alaska Community Action on Toxics v. Aurora

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[19] The Ninth Circuit has held that the terms of an NPDES permit, where ambiguous on its face, raises issues of fact. Northwest Environmental Advocates v. City of Portland, 56 F.3d 979, 982 (9th Cir. 1995).

[20] See, e.g., Brown v. Superior Court, 37 Cal.3d 477, 484 (1984) ("A construction rendering statutory language surplusage 'is to be avoided.'"); People v. Sylvester, 58 Cal. App. 4th 1493, 1496 (1997) ("[E]ach word and phrase in the statute should be interpreted to 'give meaning to every word and phrase in the statute.'").

Energy Services LLC, 765 F.3d 1169 (9th Cir. 2014) (NPDES permit did not shield defendants from liability for non-stormwater discharges of coal into bay). Furthermore, Provision B.5 also requires the City to address the reports in this letter and attached exhibits with updated water quality improvement plans and strategies specific to the Warren Canyon subwatershed.

Certified hydrogeologist John Peterson (California Certified Hydrogeologist #90), who was employed by the County of San Diego for over 20 years as its groundwater expert and CEQA regulatory manager, has conducted water quantity and water quality monitoring of Kelly Spring and Rock Haven Spring using EPA protocols to establish that Warren Creek is a seasonal, intermittent stream fed by persistent groundwater flows and to identify any pollutants from these water sources that are transported to receiving waters of the United States. He has conducted 24-hour dry weather monitoring of the spring water flows on April 13-14, 2019 to capture the varying flow rates from the springs and to obtain flow-weighted composite samples for water quality monitoring pursuant to the strictures of Provision D.2 of the MS4 Permit. (See Exhibit 4.) The results have demonstrated that the water from Kelly Spring (N-Kelly) contains iron and phosphorous pollutants that exceed the NALs established in the City of Poway's JRMP, the 2013 MS4 Permit, and the San Diego Basin Plan. (See Exhibit 4.) The results also demonstrated that the water from Rock Haven Spring (S-Rock) contains total nitrogen and total phosphorous pollutants that exceed the NALs established by the City of Poway's JRMP, 2013 MS4 Permit, and the San Diego Basin Plan. (See Exhibit 4.) 24-hour water quality monitoring was also conducted in the receiving waters of the United States at Warren Crossing (the City of Poway's MS4) in the damaged wetland waters that are directly adjacent to Lake Poway on April 14-15, 2019 according to the strictures of Provision D.1. (See Exhibit 5.) The analysis of the flow-weighted composite sample at Warren Crossing has showed that the pollutants from Rock Haven Spring and from Kelly Spring reach the receiving waters of the United States as exceedances of phosphorous NALs are exhibited there as well. The overall ratio of total nitrogen to total phosphorous (TN : TP) in the discharges is much lower than permitted, allowing harmful cyanobacteria to flourish and a condition of eutrophication to persist in Lake Poway, including in the spring of 2019. Water quality monitoring conducted on March 18, 2019, March 21, 2019, March 28, 2019, April 2, 2019, April 10, 2019, and May 4-5, 2019 (dry weather monitoring during the dry season) also confirm that phosphorous levels exceeding NALs from Kelly Spring flow through Warren Crossing and Fisherman's Footbridge and enter Lake Poway on a persistent basis during the winter and spring months when stream waters flow through Warren Canyon during typical non-drought years. (See Exhibit 6.)[21] To remedy the situation and to the improve the water quality of downstream waters including at Warren Crossing and at Lake Poway, surface water expert Tory Walker, P.E. has proposed the wetlands repair projects that are described in Exhibit 7 to address the spring water flows through Warren Canyon by reducing those flows and retaining more of the phosphorous in those flows within engineered wetlands before they enter the City's MS4 at Warren Crossing and into Lake Poway. (See Exhibits 7 and 8.)

[21] Furthermore, the results from the toxicity tests confirm that the nutrient-rich spring waters contribute to the overabundance of algae as compared to the controls in the studies (both the controls and the samples were supplied with nutrients during the experiments; the additional nutrients present in the spring water samples resulted in the samples performing better than the controls). (See Exhibits 5 and 6 for tests completed by Enthalpy Analytical.)

IV. CITIZEN CAN ENFORCE REPORTING AND MONITORING TERMS.

The City has failed to monitor receiving waters in Warren Canyon as required by Provision D.1.; has failed to identify and map out the public and private outfalls and other portions of the MS4 above Lake Poway as required under Provision D.2.a.(1);[22] has failed to monitor the non-storm water discharges into Lake Poway as required by Provisions D.2.a.(2) and D.2.b.; and has failed to fulfill the illicit discharge detection, elimination, and reporting requirements of Provision E.2 and Provision F with regard to the washed out stream crossings as described above and the non-storm water that is a source of pollutants as described above. The City has failed to identify all portions of its MS4 including the cross-draining culverts along unpaved roads,[23] culverts located in WOTUS,[24] and the Fisherman's Footbridge located in the mouth of Warren Creek at Lake Poway. Should the City refuse to update its JRMP and Water Quality Improvement Plan accordingly, the CWA allows citizen suits based on violations of any conditions of an NPDES permit, even those which are purely procedural including reporting, monitoring and record-keeping. Ecological Rights Foundation v. Pacific Lumber Co., 230 F.3d 1141, 1151 (9th Cir. 2000); see Menzel v. County Utilities Corp., 712 F.2d 91, 94 (4th Cir.1983) (person who fails to file accurate discharge-monitoring reports violates terms of NPDES permit and is subject to citizen suit provision of the Clean Water Act).

V. THE CITY HAS FAILED TO OBTAIN THE PROPER CWA PERMITS AND WATER QUALITY CERTIFICATIONS FOR THE BOAT DOCK REPLACEMENT PROJECT COMPLETED IN 2017 AT LAKE POWAY.

In addition to the City of Poway's failure to obtain the proper CWA permits as described in the 60-day notice letter mailed to the City on November 5, 2018, the City has also failed to obtain the proper CWA permits and failed to adhere to various requirements of its 2013 MS4 Permit when it undertook a development project constructed in the waters of Lake Poway: the 2017 boat dock replacement project commenced in the winter of 2017 and finished in the fall of 2017. The City of Poway failed to adhere to various requirements of its 2013 MS4 Permit and failed to obtain valid authorizations from the Department of the Army (DA) and the San Diego Water Board when it undertook a development project constructed by Bellingham Marine Industries, Inc. within Lake Poway. (See Exhibit 9.) The City failed to obtain a valid CWA § 404 permit as well as a valid water quality certification under CWA § 401 for the boat dock because the City has incorrectly labeled Warren Creek, which drains directly into Lake Poway, as an ephemeral tributary, when in fact it is an intermittent stream, thus making Lake Poway "Waters of the United States" under longstanding EPA policy. The City, in violation of Provision E.3.a.(3) n.25 of the 2013 MS4 Permit and CWA §§ 401[25] and 404,[26] has failed to obtain any authorization whatsoever for the boat dock and associated anchorage installed within jurisdictional waters. Poway is in violation of the Clean Water Act for failing to obtain the proper permits, including the appropriate amount of

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[22] Private and public outfalls in Warren Canyon can be found at the following locations: 32.998, -116.9768; 32.998, -116.978; 32.9987, -116.9806; 33.0012, -117.0029; and 33.0030, -117.0057.
[23] Cross-draining culverts can be found along the hiking trails above Lake Poway including at the following locations: 33.003, -117.008; 33.004, -117.009; and 33.0047, -117.0110.
[24] MS4 culverts placed in WOTUS include the following locations: 33.0030, -117.0057 and 33.0062, -117.0052.
[25] 33 U.S.C. § 1341.
[26] 33 U.S.C. § 1344.

compensatory mitigation, for its boat dock and all other structures that were built/replaced in the Lake Poway area in 2017.[27] (Cf. Exhibit 10.) The City of Poway may be liable for statutory penalties each and every day from the first date of construction in the winter of 2017 up through the present day because the boat dock is unpermitted and illegal under CWA law.

VI. CONCLUSIONS

Absent a consent decree approved by the Court and the EPA, Notifiers intend, at the close of the sixty (60) day notice period, to amend [redacted] lawsuit or file another citizen lawsuit under Section 505 of the Clean Water Act against the City of Poway, seeking injunctive relief, remedial relief, declaratory relief, and civil penalties for each day of each violation for each U.S. water body over the past five (5) years and sixty (60) days from the date of this notice relating to the illegal discharges through the date of this letter and all violations of Section 301 of the Clean Water Act and violations of the City's 2013 MS4 Permit which occur subsequent to the date of this letter, plus costs, attorney and expert witness fees, and such other relief as may be appropriate. Notifiers will also seek removal of the pollutants from waterways as such discharges constitute illegal fill material in violation of Sections 301 and 404 of the Clean Water Act and the Rivers and Harbors Act of 1899, 33 U.S.C § 403, et seq. Notifiers intend, at the close of the sixty (60) day notice period, to file a citizen suit under §505 of the Clean Water Act, 33 U.S.C. §1365, against the City of Poway for the applicable statutory maximum for each violation, presently $54,833 per day for each violation. 33 U.S.C. §1319(d) and 40 C.F.R. §19 and §19.4 Table 1 (or as otherwise provided by federal regulations). Civil penalties are mandatory once violations are found by a federal judge or jury. 33 U.S.C. §1319(c); Leslie Salt Co. v. United States, 55 F.3d 1388, 1396 (9th Cir. 1995) (civil penalties under Clean Water Act are mandatory, not discretionary).

During the sixty (60) day notice period, we will be available to set up a meeting with our team of scientific experts and discuss effective remedies and actions which will assure the Discharger's future compliance with the Clean Water Act and all applicable state water pollution control laws. In addition, we welcome discussion about whatever facts you believe are relevant which are not itemized in this notice letter. If you wish to avail yourself of this opportunity, please contact the undersigned.

Respectfully submitted on May 24, 2019,

Raj P. Singh

Drew D. Williams

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El Centro, CA 92243
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Attorneys for [redacted]

[27] Poway never has obtained any CWA permits for its boat dock in the past 50 years.

Cc:

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EXHIBIT 3 – KELLY SPRING AND ANTHROPOGENIC ACTIVITY ON APN: 278-210-1800 IN THE CITY OF POWAY.

EXHIBIT 4 – WATER QUALITY TESTING OF NON-STORM SPRING WATERS ON APN: 278-210-1800 ON APRIL 13-14, 2019 (FLOW-WEIGHTED COMPOSITES OVER 24-HOUR PERIOD)

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EXHIBIT 7 – PROPOSED WETLANDS RE-ESTABLISHMENT ON APN: 278-210-1800.

EXHIBIT 8 – PHOSPHOROUS-RETENTION ABILITIES OF WETLANDS

EXHIBIT 9 – 2017 BOAT DOCK REPLACEMENT PROJECT AT LAKE POWAY

EXHIBIT 10 – EXAMPLES OF WATER QUALITY CERTIFICATIONS FOR BOAT DOCKS IN CARLSBAD, CA AND AT PYRAMID LAKE, A DRINKING WATER RESERVOIR IN LOS ANGELES COUNTY, CALIFORNIA

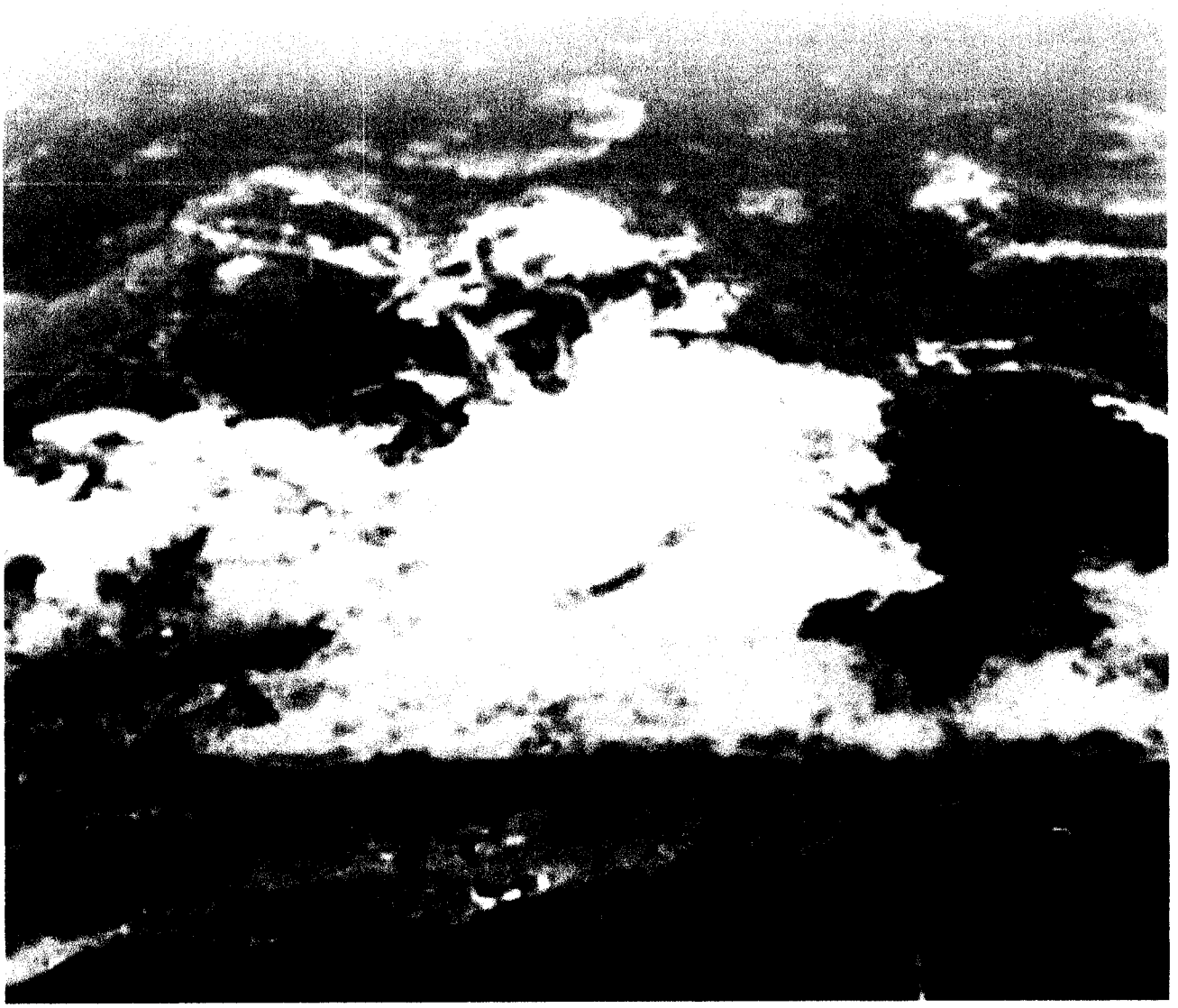
December 16, 2018 @ Warren Creek Mouth/Lake Poway

December 16, 2018 @ Warren Creek Mouth/Lake Poway

December 16, 2018 @ Warren Creek Mouth/Lake Poway

April 14 2019 @ Lake Poway

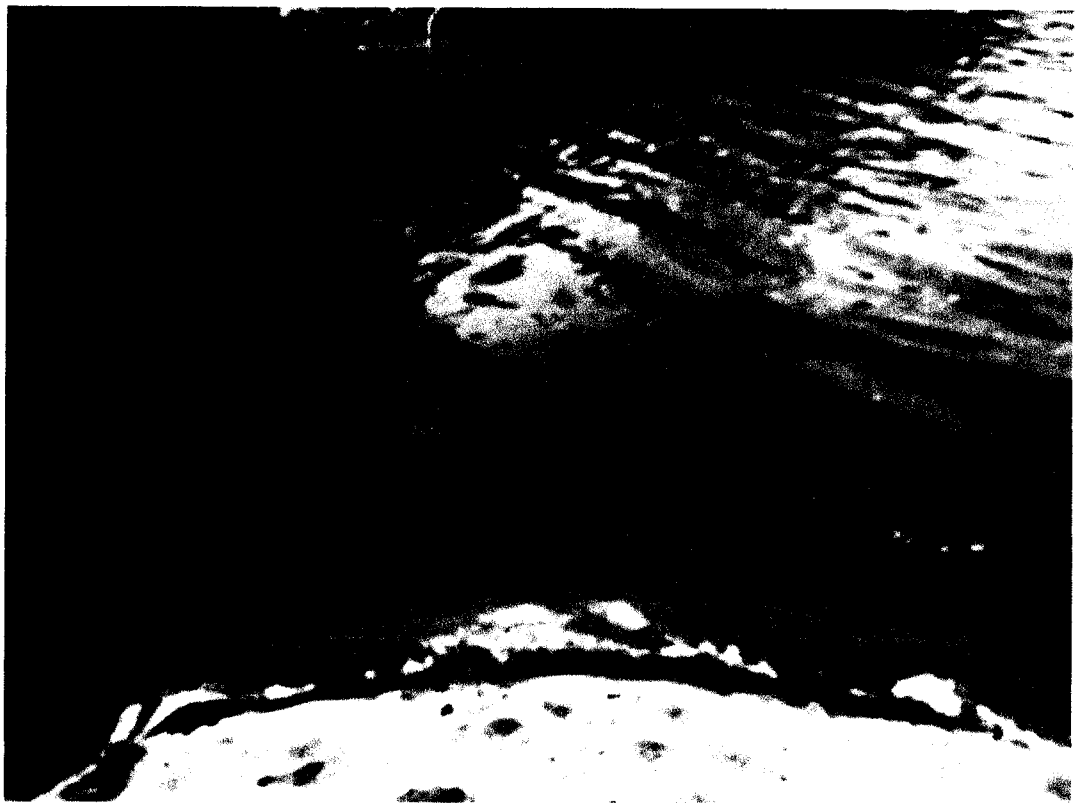
April 10, 2019 @ Lake Poway



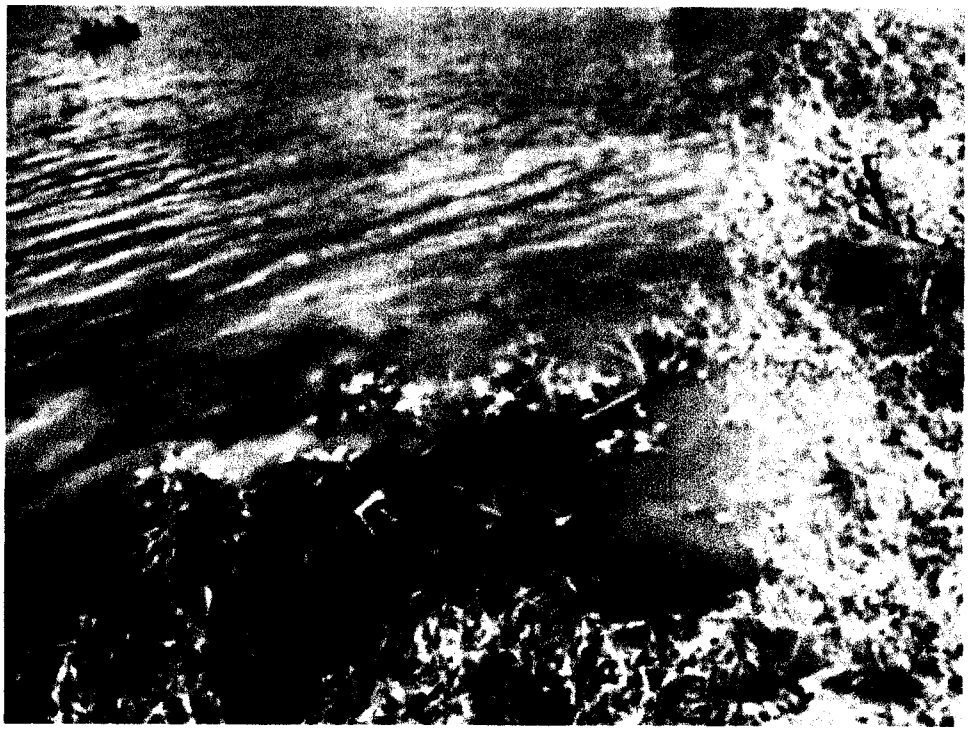
May 3, 2019 @ Lake Poway. Harmful blue-green algal blooms can be seen.

May 4, 2019 @ Lake Poway where it meets the mouth of Warren Creek. Nutrient rich waters have been feeding the overabundance of algae in the reservoir.

May 4, 2019 @ Lake Poway where it meets the mouth of Warren Creek



May 4, 2019 @ Lake Poway where it meets the mouth of Warren Creek

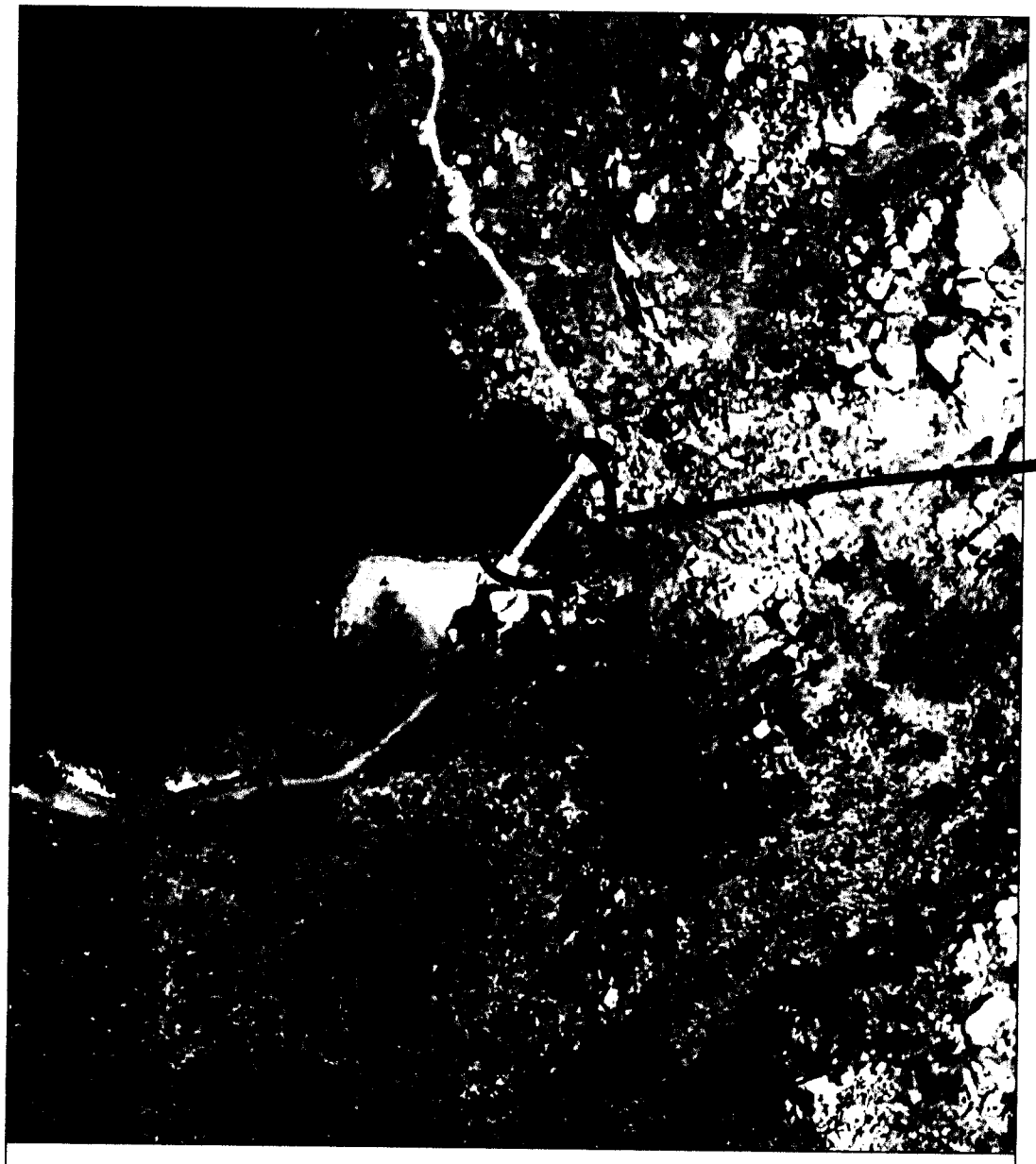


May 4, 2019 @ Lake Poway where it meets the mouth of Warren Creek

May 4, 2019 @ Lake Poway where it meets the mouth of Warren Creek

May 4, 2019 @ Lake Poway

May 4, 2019 @ Lake Poway

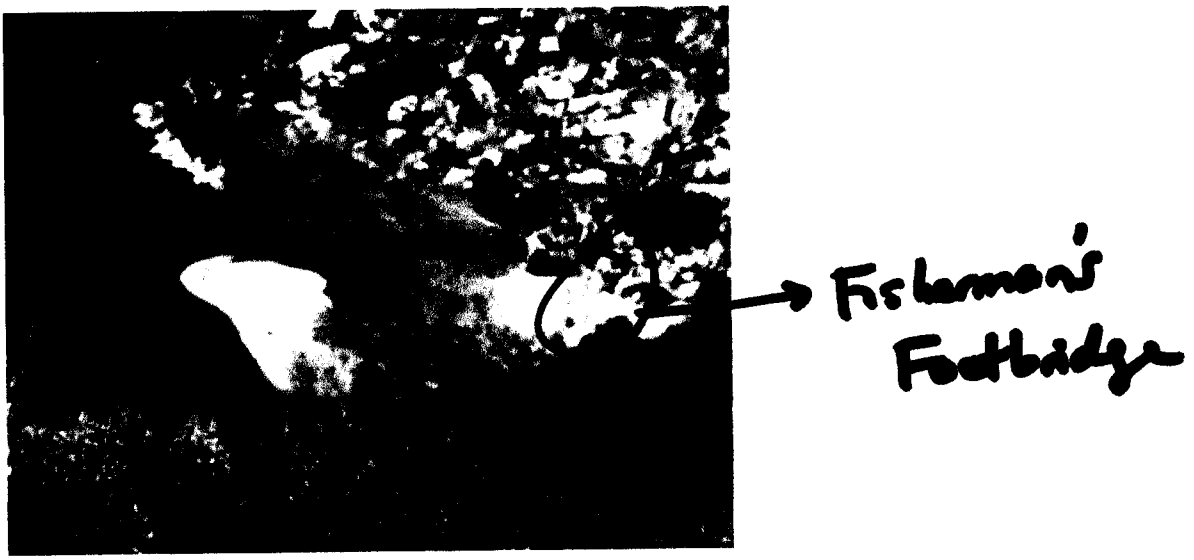


Map Provided by the City of Poway

Print Date:
5/21/2019

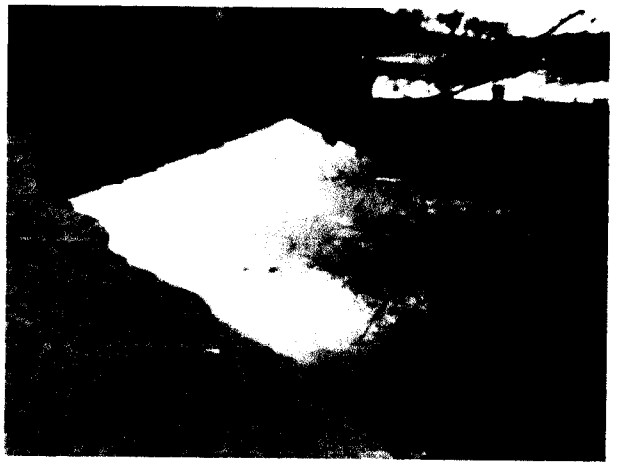
Map Scale:
1:564

Lake Poway @ the mouth of Warren Creek in 2009. Fisherman's Footbridge can be seen floating above the waters.



The mouth of Warren Creek @ Lake Poway on January 21, 2019 after the destructive winter storms of 2017.

The mouth of Warren Creek @ Lake Poway on February 9, 2019 after the destructive winter storms of 2017. Fisherman's Footbridge was buried in waste from the many washed-out culverts in Warren Canyon. Warren Creek had flowing water from Kelly Spring on Mt. Woodson that flowed into Lake Poway on February 9, 2019.

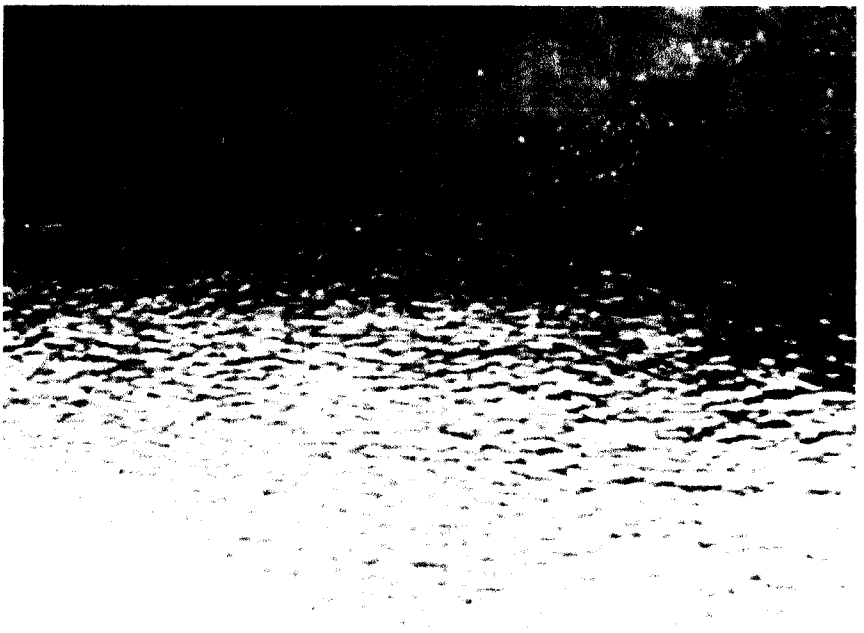


A series of destructive storms during the second full week of February 2019 resulted in the further wash out of destroyed culvert crossings in Warren Canyon that deposited further into Lake Poway. The above pictures were taken at the mouth of Warren Creek @ Lake Poway on February 16, 2019.

More of the washed-out culverts that started in 2017 swept into Lake Poway after the winter storms in 2019. The top picture was taken at Warren Crossing on February 16, 2019. The bottom picture was taken at the mouth of Warren Creek @ Lake Poway on February 18, 2019.

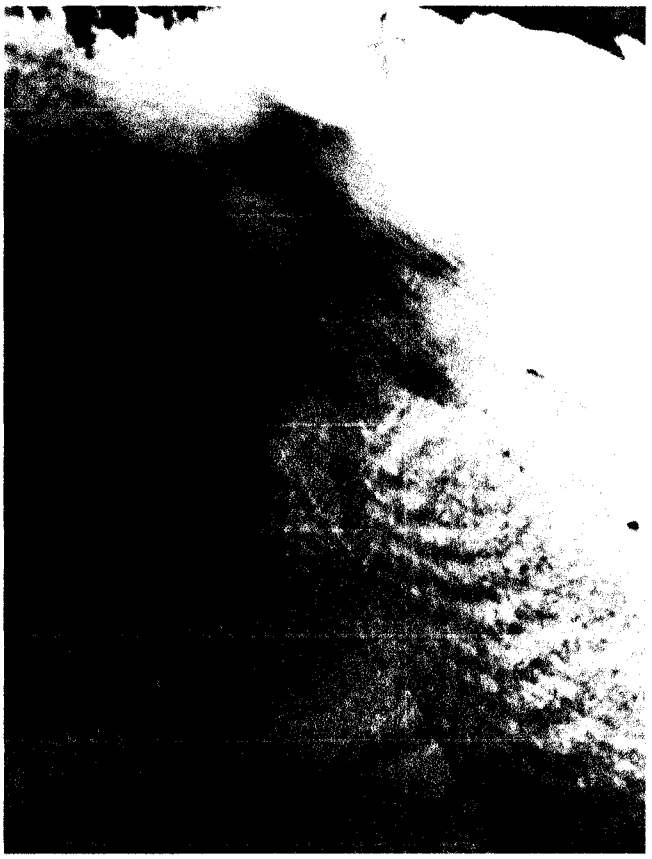
The mouth of Warren Creek @ Lake Poway on February 28, 2019.

The mouth of Warren Creek @ Lake Poway on February 28, 2019.



The mouth of Warren Creek @ Lake Poway on February 28, 2019.

The mouth of Warren Creek @ Lake Poway on February 28, 2019.



The mouth of Warren Creek @ Lake Poway on February 28, 2019.

The mouth of Warren Creek @ Lake Poway, taken from the Mt. Woodson trail on March 11, 2019. More of Lake Poway's storage capacity was lost after the winter storms of 2019.

The mouth of Warren Creek @ Lake Poway, taken from the Mt. Woodson trail on March 11, 2019. More of Lake Poway's storage capacity was lost after the winter storms of 2019.

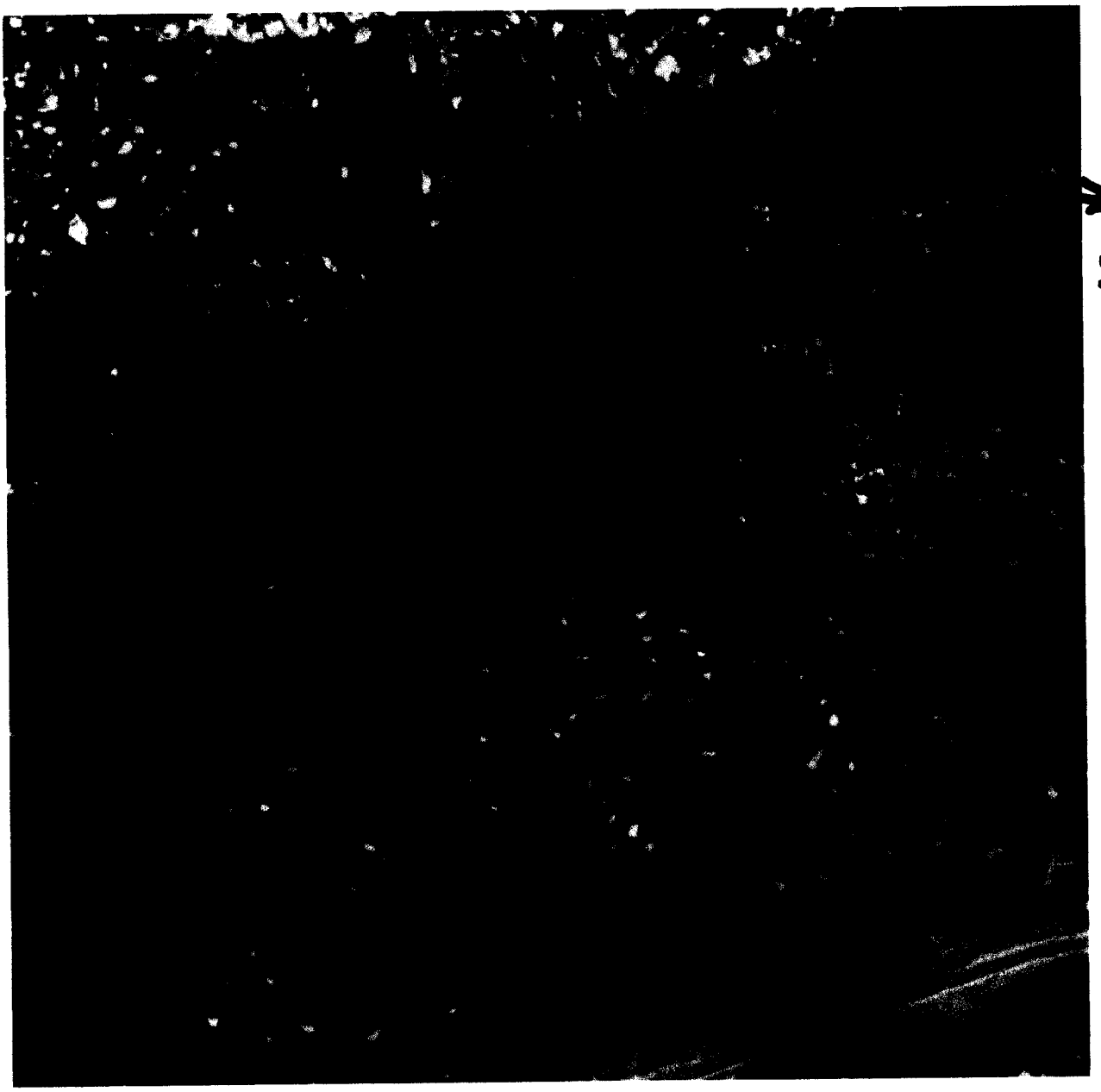
Fisherman's Footbridge on March 11, 2019.

Fisherman's Footbridge on March 11, 2019.

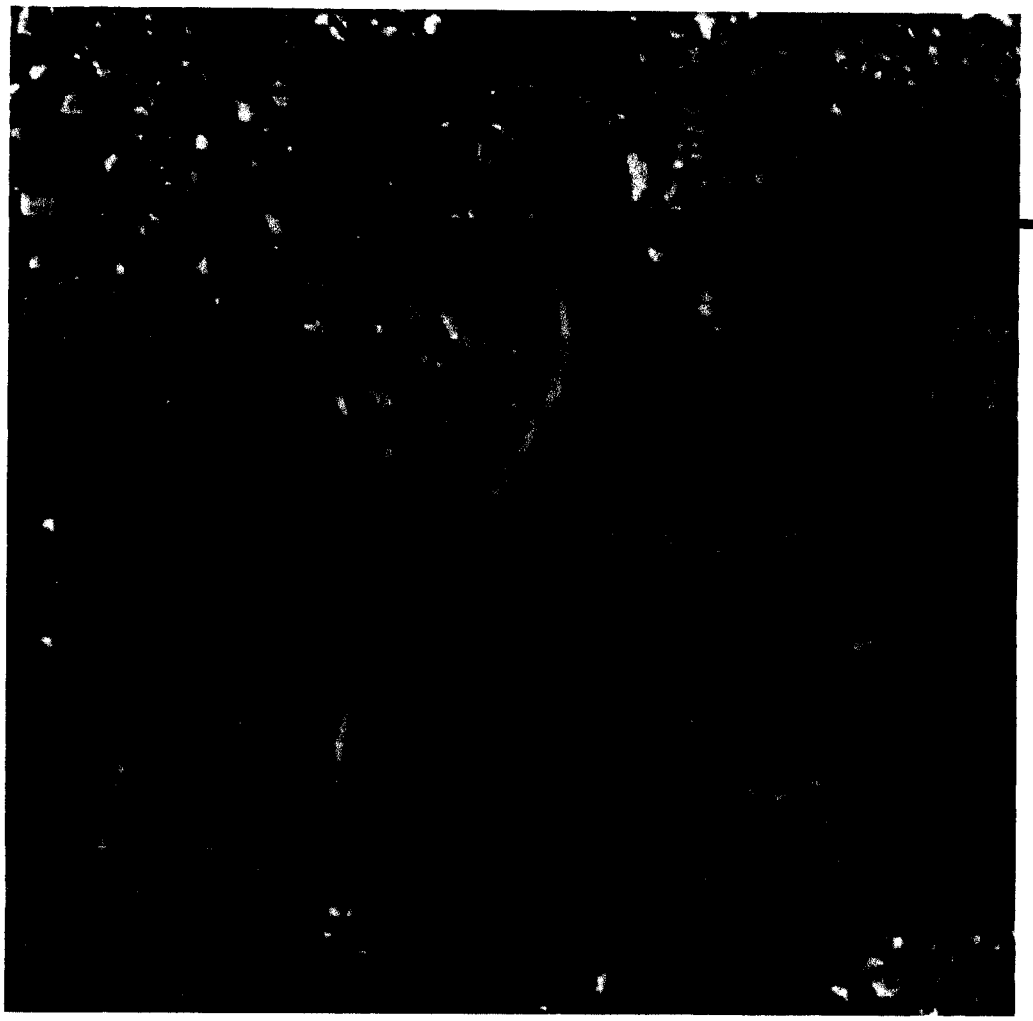
The mouth of Warren Creek @ Lake Poway on April 2, 2019. More of Lake Poway's storage capacity has been lost.

The mouth of Warren Creek @ Lake Poway on April 9, 2019.

The mouth of Warren Creek @ Lake Poway on April 14, 2019. The waste that has built up in the mouth of Warren Creek is several feet high.



Kelly Spring in 1953 before anthropogenic activity altered the wetlands at the base of Mt. Woodson.

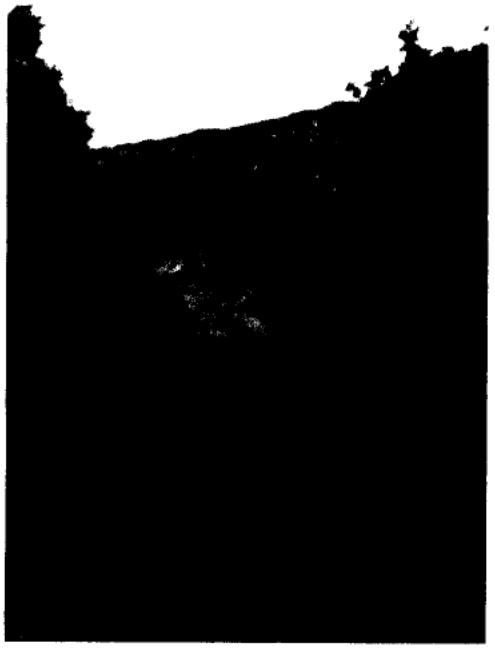


Kelly Spring

Kelly Spring in 1971. The wetlands surrounding Kelly Spring were altered by tractors in that year and repeatedly thereafter, including in 2016.

The wetlands on A[redacted] have been altered by anthropogenic activity.

Personal Privacy
(b)(6)



The above culverts were washed out of the creek below on February 27, 2017 on Personal Privacy ex. (b)(6) [redacted] Warren Canyon in Poway, California.

EnviroMatrix Analytical, Inc.

02 May 2019

Personal Privacy ex. (b)(6)
[redacted]
Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19D0527

Project Name: Testing
Project Desc./#: April 14, 2019

Enclosed are the results of analyses for samples received by the laboratory on 04/14/19 10:40. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N Kelly	19D0527-01	Drinking Water	04/14/19 08:00	04/14/19 10:40
S Rock	19D0527-02	Drinking Water	04/14/19 08:00	04/14/19 10:40

NOTE: The TOC/DOC analyses were performed by a sub-contract laboratory, results to follow in a separate report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N Kelly (19D0527-01) Drinking Water	**Sampled: 04/14/19 08:00**	**Received: 04/14/19 10:40**							
Arsenic	ND	0.002	mg/l	1	9041728	04/17/19	04/18/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.666**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041923	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041728	04/17/19	04/18/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**	**Received: 04/14/19 10:40**							
Arsenic	ND	0.002	mg/l	1	9041728	04/17/19	04/18/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.248**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041923	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041728	04/17/19	04/18/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N Kelly (19D0527-01) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Arsenic	ND	0.002	mg/l	1	9041566	04/15/19	04/15/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.495**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041924	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041566	04/15/19	04/15/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Arsenic	ND	0.002	mg/l	1	9041566	04/15/19	04/15/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.185**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041924	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041566	04/15/19	04/15/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N Kelly (19D0527-01) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Azinphos methyl	ND	0.25	ug/l	1	9041746	04/17/19	04/22/19	EPA 8141A	
Bolstar	ND	0.10	"	"	"	"	"	"	
Chlorpyrifos	ND	0.05	"	"	"	"	"	"	
Coumaphos	ND	0.25	"	"	"	"	"	"	
Demeton-o	ND	1.00	"	"	"	"	"	"	
Demeton-s	ND	1.00	"	"	"	"	"	"	
Diazinon	ND	0.05	"	"	"	"	"	"	
Dichlorvos	ND	0.10	"	"	"	"	"	"	
Disulfoton	ND	0.10	"	"	"	"	"	"	
Ethoprop	ND	0.05	"	"	"	"	"	"	
Fensulfothion	ND	0.25	"	"	"	"	"	"	
Fenthion	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Mevinphos	ND	0.25	"	"	"	"	"	"	
Methyl parathion	ND	0.10	"	"	"	"	"	"	
Phorate	ND	0.05	"	"	"	"	"	"	
Ronnel	ND	0.25	"	"	"	"	"	"	
Tetrachlorvinphos	ND	0.25	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	0.25	"	"	"	"	"	"	
Trichlorinate	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		*108 %*	*60-130*		"	"	"	"	
Surrogate: Tributylphosphate		*104 %*	*60-130*		"	"	"	"	
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Azinphos methyl	ND	0.25	ug/l	1	9041746	04/17/19	04/22/19	EPA 8141A	
Bolstar	ND	0.10	"	"	"	"	"	"	
Chlorpyrifos	ND	0.05	"	"	"	"	"	"	
Coumaphos	ND	0.25	"	"	"	"	"	"	
Demeton-o	ND	1.00	"	"	"	"	"	"	
Demeton-s	ND	1.00	"	"	"	"	"	"	
Diazinon	ND	0.05	"	"	"	"	"	"	
Dichlorvos	ND	0.10	"	"	"	"	"	"	
Disulfoton	ND	0.10	"	"	"	"	"	"	
Ethoprop	ND	0.05	"	"	"	"	"	"	
Fensulfothion	ND	0.25	"	"	"	"	"	"	
Fenthion	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Mevinphos	ND	0.25	"	"	"	"	"	"	
Methyl parathion	ND	0.10	"	"	"	"	"	"	
Phorate	ND	0.05	"	"	"	"	"	"	
Ronnel	ND	0.25	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
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Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Tetrachlorvinphos	ND	0.25	ug/l	1	9041746	04/17/19	04/22/19	EPA 8141A	
Tokuthion (Prothiofos)	ND	0.25	"	"	"	"	"	"	
Trichlorinate	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		*116 %*	*60-130*		"	"	"	"	
Surrogate: Tributylphosphate		*112 %*	*60-130*		"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
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Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N Kelly (19D0527-01) Drinking Water	**Sampled: 04/14/19 08:00**	**Received: 04/14/19 10:40**							
Ammonia as N	ND	0.10	mg/l	1	9041564	04/15/19	04/15/19	EPA 350.1	
Color	**19**	1	Color Units	"	9041674	04/15/19	04/15/19	SM2120 B	
Specific Conductance (EC)	**398**	1.00	umhos/cm	"	9041751	04/17/19	04/17/19	SM2510 B	
Hardness (Total)	**25**	10	mg CaCO3/L	"	9041656	04/16/19	05/01/19	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	"	9041671	04/15/19	04/15/19	SM5540 C	
Nitrate/Nitrite as N	**0.88**	0.05	"	"	9041666	04/17/19	04/17/19	EPA 353.2	
Total Kjeldahl Nitrogen	ND	0.5	"	"	9042019	04/21/19	04/22/19	EPA 351.2	
Dissolved Oxygen	**8.79**	0.10	"	"	9042471	04/14/19	04/14/19	SM4500-O G	HT-15
pH at 25 deg C	**6.69**	0.10	pH Units	"	9041661	04/15/19	04/15/19	SM4500-H+ B	HT-15
Orthophosphate as P	**0.06**	0.05	mg/l	"	9041662	04/15/19	04/15/19	SM4500 P E	
Phosphorus, Total	**0.20**	0.05	"	"	9042256	04/22/19	04/22/19	SM4500 P B, E	
Total Dissolved Solids	**276**	20.0	"	"	9041827	04/18/19	04/19/19	SM2540 C	
Total Suspended Solids	ND	20.0	"	"	9041909	04/18/19	04/19/19	SM2540 D	
Sulfate as SO4	**12.9**	5.0	"	"	9041585	04/15/19	04/15/19	SM4500 SO4 E	
Turbidity	**6.60**	0.05	NTU	"	9041672	04/15/19	04/15/19	SM2130 B	
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**	**Received: 04/14/19 10:40**							
Ammonia as N	ND	0.10	mg/l	1	9041564	04/15/19	04/15/19	EPA 350.1	
Color	**8**	1	Color Units	"	9041674	04/15/19	04/15/19	SM2120 B	
Specific Conductance (EC)	**336**	1.00	umhos/cm	"	9041751	04/17/19	04/17/19	SM2510 B	
Hardness (Total)	**24**	10	mg CaCO3/L	"	9041656	04/16/19	05/01/19	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	"	9041671	04/15/19	04/15/19	SM5540 C	
Nitrate/Nitrite as N	**1.40**	0.10	"	2	9041666	04/17/19	04/17/19	EPA 353.2	
Total Kjeldahl Nitrogen	ND	0.5	"	1	9042019	04/21/19	04/22/19	EPA 351.2	
Dissolved Oxygen	**8.48**	0.10	"	"	9042471	04/14/19	04/14/19	SM4500-O G	HT-15
pH at 25 deg C	**6.54**	0.10	pH Units	"	9041661	04/15/19	04/15/19	SM4500-H+ B	HT-15
Orthophosphate as P	ND	0.05	mg/l	"	9041662	04/15/19	04/15/19	SM4500 P E	
Phosphorus, Total	**0.21**	0.05	"	"	9042256	04/22/19	04/22/19	SM4500 P B, E	
Total Dissolved Solids	**215**	20.0	"	"	9041827	04/18/19	04/19/19	SM2540 C	
Total Suspended Solids	ND	20.0	"	"	9041909	04/18/19	04/19/19	SM2540 D	
Sulfate as SO4	**14.7**	5.0	"	"	9041585	04/15/19	04/15/19	SM4500 SO4 E	
Turbidity	**3.50**	0.05	NTU	"	9041672	04/15/19	04/15/19	SM2130 B	

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Client Name: Personal Privacy ex. (b)(6)
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EMA Log #: 19D0527

Microbiological Parameters by Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N Kelly (19D0527-01) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Total Coliforms	**80**	2	MPN/100 ml	1	9041555	04/14/19	04/18/19	SM 9221 B, E	
Fecal Coliforms	**8**	2	"	"	"	"	04/17/19	"	
Enterococcus	**2**	2	"	"	9041556	"	04/18/19	SM 9230 A, B	
S Rock (19D0527-02) Drinking Water	**Sampled: 04/14/19 08:00**		**Received: 04/14/19 10:40**						
Total Coliforms	**170**	2	MPN/100 ml	1	9041555	04/14/19	04/18/19	SM 9221 B, E	
Fecal Coliforms	**2**	2	"	"	"	"	04/17/19	"	
Enterococcus	**23**	2	"	"	9041556	"	04/18/19	SM 9230 A, B	

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Client Name: Personal Privacy ex. (b)(6)
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Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Blank (9041728-BLK1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Cadmium	ND	0.001	mg/l							
Lead	ND	0.005	"							
Thallium	ND	0.00100	"							
Nickel	ND	0.005	"							
Copper	ND	0.010	"							
Chromium	ND	0.005	"							
Iron	ND	0.050	"							
Selenium	ND	0.005	"							
Zinc	ND	0.020	"							
Arsenic	ND	0.002	"							
LCS (9041728-BS1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Lead	0.051	0.005	mg/l	0.0500		103	85-115			
Cadmium	0.051	0.001	"	0.0500		102	85-115			
Nickel	0.052	0.005	"	0.0500		104	85-115			
Thallium	0.0542	0.00100	"	0.0500		108	85-115			
Zinc	0.053	0.020	"	0.0500		107	85-115			
Iron	0.057	0.050	"	0.0500		114	85-115			
Selenium	0.050	0.005	"	0.0500		99	75-125			
Copper	0.052	0.010	"	0.0500		104	85-115			
Chromium	0.051	0.005	"	0.0500		102	85-115			
Arsenic	0.051	0.002	"	0.0500		103	85-115			
LCS Dup (9041728-BSD1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Lead	0.052	0.005	mg/l	0.0500		103	85-115	0.4	20	
Cadmium	0.051	0.001	"	0.0500		103	85-115	0.2	20	
Chromium	0.051	0.005	"	0.0500		103	85-115	0.2	20	
Copper	0.052	0.010	"	0.0500		104	85-115	0.3	20	
Thallium	0.0513	0.00100	"	0.0500		103	85-115	5	20	
Zinc	0.053	0.020	"	0.0500		105	85-115	1	20	
Nickel	0.052	0.005	"	0.0500		104	85-115	0.05	20	
Iron	0.054	0.050	"	0.0500		108	85-115	5	20	
Selenium	0.049	0.005	"	0.0500		98	75-125	0.6	20	
Arsenic	0.050	0.002	"	0.0500		101	85-115	2	20	

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Project Name: Testing

EMA Log #: 19D0527

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Duplicate (9041728-DUP1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Selenium	ND	0.005	mg/l		ND				20	
Iron	0.247	0.050	"		0.248			0.2	20	
Cadmium	0.0003	0.001	"		0.0003			6	20	
Zinc	0.003	0.020	"		0.003			8	20	
Chromium	0.0003	0.005	"		0.0004			25	20	QR-04
Copper	0.001	0.010	"		0.001			0.9	20	
Thallium	ND	0.00100	"		0.000131				20	
Lead	0.0008	0.005	"		0.001			34	20	QR-04
Nickel	0.0003	0.005	"		0.0003			12	20	
Arsenic	0.0002	0.002	"		0.0002			15	20	
Matrix Spike (9041728-MS1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Copper	0.052	0.010	mg/l	0.0500	0.001	101	70-130			
Lead	0.052	0.005	"	0.0500	0.001	102	70-130			
Cadmium	0.051	0.001	"	0.0500	0.0003	102	70-130			
Selenium	0.051	0.005	"	0.0500	ND	101	75-125			
Nickel	0.051	0.005	"	0.0500	0.0003	102	70-130			
Iron	0.287	0.050	"	0.0500	0.248	80	70-130			
Chromium	0.051	0.005	"	0.0500	0.0004	102	70-130			
Thallium	0.0519	0.00100	"	0.0500	0.000131	103	70-130			
Zinc	0.055	0.020	"	0.0500	0.003	105	70-130			
Arsenic	0.052	0.002	"	0.0500	0.0002	103	70-130			
Matrix Spike (9041728-MS2)		**Source: 19D0475-03**		Prepared: 04/17/19	Analyzed: 04/18/19					
Lead	0.053	0.005	mg/l	0.0500	0.0009	104	70-130			
Cadmium	0.052	0.001	"	0.0500	0.0002	103	70-130			
Nickel	0.052	0.005	"	0.0500	ND	105	70-130			
Thallium	0.0525	0.00100	"	0.0500	ND	105	70-130			
Copper	0.053	0.010	"	0.0500	0.0008	104	70-130			
Chromium	0.052	0.005	"	0.0500	0.0002	103	70-130			
Selenium	0.050	0.005	"	0.0500	ND	100	75-125			
Zinc	0.065	0.020	"	0.0500	0.003	125	70-130			
Iron	0.062	0.050	"	0.0500	0.009	106	70-130			
Arsenic	0.051	0.002	"	0.0500	ND	102	70-130			

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Project Name: Testing

EMA Log #: 19D0527

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Matrix Spike Dup (9041728-MSD1)		**Source: 19D0527-02**		Prepared: 04/17/19 Analyzed: 04/18/19						
Chromium	0.053	0.005	mg/l	0.0500	0.0004	105	70-130	3	20	
Iron	0.312	0.050	"	0.0500	0.248	129	70-130	8	20	
Lead	0.061	0.005	"	0.0500	0.001	119	70-130	14	20	
Thallium	0.0598	0.00100	"	0.0500	0.000131	119	70-130	14	20	
Copper	0.054	0.010	"	0.0500	0.001	105	70-130	4	20	
Nickel	0.053	0.005	"	0.0500	0.0003	105	70-130	3	20	
Cadmium	0.053	0.001	"	0.0500	0.0003	106	70-130	3	20	
Zinc	0.066	0.020	"	0.0500	0.003	127	70-130	18	20	
Selenium	0.053	0.005	"	0.0500	ND	106	75-125	4	20	
Arsenic	0.052	0.002	"	0.0500	0.0002	104	70-130	0.9	20	
Batch 9041923										
Blank (9041923-BLK1)				Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l							
LCS (9041923-BS1)				Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200		105	75-125			
LCS Dup (9041923-BSD1)				Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200		104	75-125	0.7	20	
Duplicate (9041923-DUP1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9041923-MS1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	110	75-125			

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Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Testing

EMA Log #: 19D0527

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041923										
Matrix Spike Dup (9041923-MSD1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	107	75-125	3	20	

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Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Testing

EMA Log #: 19D0527

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041566										
Blank (9041566-BLK1)				Prepared & Analyzed: 04/15/19						
Selenium	ND	0.005	mg/l							
Cadmium	ND	0.001	"							
Chromium	ND	0.005	"							
Nickel	ND	0.005	"							
Arsenic	ND	0.002	"							
Thallium	ND	0.00100	"							
Zinc	ND	0.020	"							
Iron	ND	0.050	"							
Lead	ND	0.005	"							
Copper	ND	0.010	"							
LCS (9041566-BS1)				Prepared & Analyzed: 04/15/19						
Arsenic	0.099	0.002	mg/l	0.100		99	75-125			
Nickel	0.099	0.005	"	0.100		99	85-115			
Cadmium	0.100	0.001	"	0.100		100	85-115			
Thallium	0.104	0.00100	"	0.100		104	85-115			
Selenium	0.100	0.005	"	0.100		100	75-125			
Chromium	0.099	0.005	"	0.100		99	75-125			
Iron	0.102	0.050	"	0.100		102	85-115			
Zinc	0.099	0.020	"	0.100		99	85-115			
Copper	0.099	0.010	"	0.100		99	85-115			
Lead	0.098	0.005	"	0.100		98	75-125			
LCS Dup (9041566-BSD1)				Prepared & Analyzed: 04/15/19						
Arsenic	0.099	0.002	mg/l	0.100		99	75-125	0.4	20	
Cadmium	0.100	0.001	"	0.100		100	85-115	0.2	20	
Chromium	0.100	0.005	"	0.100		100	75-125	0.4	20	
Thallium	0.101	0.00100	"	0.100		101	85-115	3	20	
Selenium	0.098	0.005	"	0.100		98	75-125	1	20	
Nickel	0.100	0.005	"	0.100		100	85-115	1	20	
Copper	0.100	0.010	"	0.100		100	85-115	1	20	
Lead	0.100	0.005	"	0.100		100	75-125	2	20	
Iron	0.101	0.050	"	0.100		101	85-115	1	20	
Zinc	0.100	0.020	"	0.100		100	85-115	0.8	20	

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Project Name: Testing

EMA Log #: 19D0527

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041566										
Duplicate (9041566-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Cadmium	ND	0.001	mg/l		ND				20	
Thallium	ND	0.00100	"		ND				20	
Arsenic	0.0002	0.002	"		0.0002			1	20	
Nickel	0.0002	0.005	"		0.0002				20	
Selenium	ND	0.005	"		ND				20	
Chromium	0.0002	0.005	"		0.0002				20	
Zinc	0.001	0.020	"		0.001			19	20	
Iron	0.178	0.050	"		0.185			4	20	
Copper	ND	0.010	"		ND				20	
Lead	ND	0.005	"		ND				20	
Matrix Spike (9041566-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Cadmium	0.102	0.001	mg/l	0.100	ND	102	70-130			
Selenium	0.101	0.005	"	0.100	ND	101	75-125			
Nickel	0.098	0.005	"	0.100	0.0002	98	70-130			
Thallium	0.103	0.00100	"	0.100	ND	103	70-130			
Chromium	0.098	0.005	"	0.100	0.0002	98	75-125			
Arsenic	0.101	0.002	"	0.100	0.0002	100	75-125			
Iron	0.278	0.050	"	0.100	0.185	92	70-130			
Copper	0.097	0.010	"	0.100	ND	97	70-130			
Lead	0.101	0.005	"	0.100	ND	101	75-125			
Zinc	0.103	0.020	"	0.100	0.001	102	70-130			
Matrix Spike Dup (9041566-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Nickel	0.097	0.005	mg/l	0.100	0.0002	97	70-130	0.7	20	
Arsenic	0.101	0.002	"	0.100	0.0002	101	75-125	0.7	20	
Thallium	0.106	0.00100	"	0.100	ND	106	70-130	3	20	
Cadmium	0.101	0.001	"	0.100	ND	101	70-130	0.6	20	
Chromium	0.098	0.005	"	0.100	0.0002	98	75-125	0.5	20	
Selenium	0.100	0.005	"	0.100	ND	100	75-125	0.8	20	
Zinc	0.102	0.020	"	0.100	0.001	101	70-130	0.8	20	
Iron	0.281	0.050	"	0.100	0.185	96	70-130	1	20	
Lead	0.101	0.005	"	0.100	ND	101	75-125	0.02	20	
Copper	0.096	0.010	"	0.100	ND	96	70-130	1	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041924										
Blank (9041924-BLK1)				Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l							
LCS (9041924-BS1)				Prepared & Analyzed: 04/19/19						
Mercury	0.0021	0.0001	mg/l	0.00200		105	75-125			
LCS Dup (9041924-BSD1)				Prepared & Analyzed: 04/19/19						
Mercury	0.0021	0.0001	mg/l	0.00200		104	75-125	0.7	20	
Duplicate (9041924-DUP1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9041924-MS1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.0020	0.0001	mg/l	0.00200	ND	98	75-125			
Matrix Spike Dup (9041924-MSD1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.0020	0.0001	mg/l	0.00200	ND	100	75-125	2	20	

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Client Name: [redacted] Personal Privacy ex. (b) (6)
Project Name: Testing

EMA Log #: 19D0527

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041746										
Blank (9041746-BLK1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Azinphos methyl	ND	0.25	ug/l							
Bolstar	ND	0.10	"							
Chlorpyrifos	ND	0.05	"							
Coumaphos	ND	0.25	"							
Demeton-o	ND	1.00	"							
Demeton-s	ND	1.00	"							
Diazinon	ND	0.05	"							
Dichlorvos	ND	0.10	"							
Disulfoton	ND	0.10	"							
Ethoprop	ND	0.05	"							
Fensulfothion	ND	0.25	"							
Fenthion	ND	0.05	"							
Malathion	ND	0.05	"							
Mevinphos	ND	0.25	"							
Methyl parathion	ND	0.10	"							
Phorate	ND	0.05	"							
Ronnel	ND	0.25	"							
Tetrachlorvinphos	ND	0.25	"							
Tokuthion (Prothiofos)	ND	0.25	"							
Trichlorinate	ND	0.05	"							
Surrogate: Triphenyl phosphate	*0.230*		*"*	*0.250*		*92*	*60-130*			
Surrogate: Tributylphosphate	*0.240*		*"*	*0.250*		*96*	*60-130*			
LCS (9041746-BS1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Bolstar	0.44	0.10	ug/l	0.500		88	60-130			
Diazinon	0.57	0.05	"	0.500		114	60-130			
Ethoprop	0.55	0.05	"	0.500		110	60-130			
Mevinphos	0.53	0.25	"	0.500		106	60-130			
Methyl parathion	0.51	0.10	"	0.500		102	60-130			
Phorate	0.55	0.05	"	0.500		110	60-130			
Ronnel	0.53	0.25	"	0.500		106	60-130			
Trichlorinate	0.56	0.05	"	0.500		112	60-130			
Surrogate: Triphenyl phosphate	*0.310*		*"*	*0.250*		*124*	*60-130*			
Surrogate: Tributylphosphate	*0.300*		*"*	*0.250*		*120*	*60-130*			

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041746										
LCS Dup (9041746-BSD1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Bolstar	0.45	0.10	ug/l	0.500		90	60-130	2	30	
Diazinon	0.57	0.05	"	0.500		114	60-130	0	30	
Ethoprop	0.53	0.05	"	0.500		106	60-130	4	30	
Mevinphos	0.55	0.25	"	0.500		110	60-130	4	30	
Methyl parathion	0.48	0.10	"	0.500		96	60-130	6	30	
Phorate	0.56	0.05	"	0.500		112	60-130	2	30	
Ronnel	0.51	0.25	"	0.500		102	60-130	4	30	
Trichlorinate	0.52	0.05	"	0.500		104	60-130	7	30	
Surrogate: Triphenyl phosphate	*0.270*		*"*	*0.250*		*108*	*60-130*			
Surrogate: Tributylphosphate	*0.270*		*"*	*0.250*		*108*	*60-130*			

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Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Testing

EMA Log #: 19D0527

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041564										
Blank (9041564-BLK1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	ND	0.10	mg/l							
LCS (9041564-BS1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	0.94	0.10	mg/l	1.00		94	90-110			
LCS Dup (9041564-BSD1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	0.95	0.10	mg/l	1.00		95	90-110	2	20	
Duplicate (9041564-DUP1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	ND	0.10	mg/l		0.03				20	
Matrix Spike (9041564-MS1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	1.95	0.20	mg/l	2.00	ND	97	80-120			
Matrix Spike Dup (9041564-MSD1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	1.93	0.20	mg/l	2.00	ND	96	80-120	1	20	
Batch 9041585										
Blank (9041585-BLK1)				Prepared & Analyzed: 04/15/19						
Sulfate as SO4	ND	5.0	mg/l							
LCS (9041585-BS1)				Prepared & Analyzed: 04/15/19						
Sulfate as SO4	9.2	5.0	mg/l	10.0		92	80-120			
LCS Dup (9041585-BSD1)				Prepared & Analyzed: 04/15/19						
Sulfate as SO4	9.3	5.0	mg/l	10.0		93	80-120	1	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0527

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041585										
Duplicate (9041585-DUP1)		**Source: 19D0405-01**		Prepared & Analyzed: 04/15/19						
Sulfate as SO4	17.2	5.0	mg/l		17.7			3	20	
Matrix Spike (9041585-MS1)		**Source: 19D0405-01**		Prepared & Analyzed: 04/15/19						
Sulfate as SO4	27.4	5.0	mg/l	10.0	17.7	97	80-120			
Matrix Spike Dup (9041585-MSD1)		**Source: 19D0405-01**		Prepared & Analyzed: 04/15/19						
Sulfate as SO4	27.2	5.0	mg/l	10.0	17.7	95	80-120	0.8	20	
Batch 9041656										
Blank (9041656-BLK1)				Prepared & Analyzed: 04/16/19						
Hardness (Total)	ND	10	mg CaCO3/L							
Duplicate (9041656-DUP1)		**Source: 19D0399-01**		Prepared & Analyzed: 04/16/19						
Hardness (Total)	107	10	mg CaCO3/L		106			2	20	
Batch 9041661										
Duplicate (9041661-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
pH at 25 deg C	6.48	0.10	pH Units		6.54			0.8	20	
Reference (9041661-SRM1)				Prepared & Analyzed: 04/15/19						
pH at 25 deg C	5.87	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9041662										
Blank (9041662-BLK1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	ND	0.05	mg/l							

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041662										
LCS (9041662-BS1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.51	0.05	mg/l	0.500		102	80-120			
LCS Dup (9041662-BSD1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.52	0.05	mg/l	0.500		104	80-120	2	20	
Duplicate (9041662-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.03	0.05	mg/l		0.03			0	20	
Matrix Spike (9041662-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.53	0.05	mg/l	0.500	0.03	100	80-120			
Matrix Spike Dup (9041662-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.54	0.05	mg/l	0.500	0.03	101	80-120	0.8	20	
Batch 9041666										
Blank (9041666-BLK1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	0.05	mg/l							
LCS (9041666-BS1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		97	90-110			
LCS Dup (9041666-BSD1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	0.49	0.05	mg/l	0.500		98	90-110	1	20	
Duplicate (9041666-DUP1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	1.00	mg/l		ND				20	

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041666										
Duplicate (9041666-DUP2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	1.00	mg/l		ND				20	
Matrix Spike (9041666-MS1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.6	2.00	mg/l	20.0	ND	98	80-120			
Matrix Spike (9041666-MS2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.4	2.00	mg/l	20.0	ND	97	80-120			
Matrix Spike Dup (9041666-MSD1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.1	2.00	mg/l	20.0	ND	95	80-120	3	20	
Matrix Spike Dup (9041666-MSD2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.4	2.00	mg/l	20.0	ND	97	80-120	0	20	
Batch 9041671										
Blank (9041671-BLK1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (9041671-BS1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		92	80-120			
LCS Dup (9041671-BSD1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		93	80-120	0.4	20	
Duplicate (9041671-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041671										
Matrix Spike (9041671-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	99	80-120			
Matrix Spike Dup (9041671-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	98	80-120	0.5	20	
Batch 9041672										
Blank (9041672-BLK1)				Prepared & Analyzed: 04/15/19						
Turbidity	ND	0.05	NTU							
Duplicate (9041672-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Turbidity	3.60	0.05	NTU		3.50			3	20	
Reference (9041672-SRM1)				Prepared & Analyzed: 04/15/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9041674										
Duplicate (9041674-DUP1)		**Source: 19D0567-01**		Prepared & Analyzed: 04/15/19						
Color	ND	1	Color Units		ND				20	
Reference (9041674-SRM1)				Prepared & Analyzed: 04/15/19						
Color	52	1	Color Units	50.0		104	80-120			
Batch 9041751										
Duplicate (9041751-DUP1)		**Source: 19D0583-01**		Prepared & Analyzed: 04/17/19						
Specific Conductance (EC)	208	1.00	umhos/cm		207			0.5	20	

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041751										
Reference (9041751-SRM1)				Prepared & Analyzed: 04/17/19						
Specific Conductance (EC)	435	1.00	umhos/cm	429		101	90-110			
Batch 9041827										
Blank (9041827-BLK1)				Prepared: 04/18/19 Analyzed: 04/19/19						
Total Dissolved Solids	ND	20.0	mg/l							
Duplicate (9041827-DUP1)		**Source: 19D0475-02**		Prepared: 04/18/19 Analyzed: 04/19/19						
Total Dissolved Solids	1610	20.0	mg/l		1610			0.06	20	
Reference (9041827-SRM1)				Prepared: 04/18/19 Analyzed: 04/19/19						
Total Dissolved Solids	374	20.0	mg/l	378		99	8.64-111.3			
Batch 9041909										
Blank (9041909-BLK1)				Prepared: 04/18/19 Analyzed: 04/19/19						
Total Suspended Solids	ND	20.0	mg/l							
Duplicate (9041909-DUP1)		**Source: 19D0584-01**		Prepared: 04/18/19 Analyzed: 04/19/19						
Total Suspended Solids	316	20.0	mg/l		320			1	20	
Reference (9041909-SRM1)				Prepared: 04/18/19 Analyzed: 04/19/19						
Total Suspended Solids	100	20.0	mg/l	100		100	77.1-110			
Batch 9042019										
Blank (9042019-BLK1)				Prepared: 04/21/19 Analyzed: 04/22/19						
Total Kjeldahl Nitrogen	ND	0.5	mg/l							

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Client Name: [redacted] Personal Privacy ex. (b)(6)
Project Name: Testing

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042019										
LCS (9042019-BS1)				Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	0.9	0.5	mg/l	1.00		94	90-110			
LCS Dup (9042019-BSD1)				Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	1.0	0.5	mg/l	1.00		96	90-110	2	20	
Duplicate (9042019-DUP1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	0.3	0.5	mg/l		0.3			1	20	
Matrix Spike (9042019-MS1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	2.3	1.0	mg/l	2.00	ND	114	80-120			
Matrix Spike Dup (9042019-MSD1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	2.2	1.0	mg/l	2.00	ND	112	80-120	2	20	
Batch 9042256										
Blank (9042256-BLK1)				Prepared & Analyzed: 04/22/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9042256-BS1)				Prepared & Analyzed: 04/22/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		103	80-120			
LCS Dup (9042256-BSD1)				Prepared & Analyzed: 04/22/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500		102	80-120	1	20	
Duplicate (9042256-DUP1)		**Source: 19D0586-02**		Prepared & Analyzed: 04/22/19						
Phosphorus, Total	0.21	0.05	mg/l		0.21			3	20	

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Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042256										
Matrix Spike (9042256-MS1)		**Source: 19D0586-02**		Prepared & Analyzed: 04/22/19						
Phosphorus, Total	0.72	0.05	mg/l	0.500	0.21	101	80-120			
Matrix Spike Dup (9042256-MSD1)		**Source: 19D0586-02**		Prepared & Analyzed: 04/22/19						
Phosphorus, Total	0.71	0.05	mg/l	0.500	0.21	99	80-120	1	20	
Batch 9042471										
Duplicate (9042471-DUP1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/14/19						
Dissolved Oxygen	8.80	0.10	mg/l		8.79			0.1	20	
Duplicate (9042471-DUP2)		**Source: 19D0527-02**		Prepared & Analyzed: 04/14/19						
Dissolved Oxygen	8.53	0.10	mg/l		8.48			0.6	20	

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Notes and Definitions

QR-04	The RPD between the sample and sample duplicate is not valid since both results are below the reporting limit for this analyte.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Page___ of___

EMA LOG #:

Client: Personal Privacy ex. (b)(6) [redacted]

Attn:

Personal Privacy ex. (b)(6) [redacted]

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	X see attached
1	Personal Privacy ex. (b)(6) [redacted]																							
2	S Rock	comp		stream water	varies																			
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water surface water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day ☒ STD (7-business days)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A	Containers Properly Preseved: Yes No N/A
Custody Seals Intact: Yes No N/A	Temp @ Receipt: 3° C on ice.
COC/Labels Agree: Yes No N/A	Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	4/14/19; 1040	Signature [signature]
Print John Peterson		Print Alejandra Avila
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address: sample times 1200 4/13/19, 1600 4/13/19, 2000 4/13/19, 2400 4/13/19 0400 4/14/19, last sample 0800 4/14/19

Project/Sample Comments:

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Analytical Services Quotation

Testing
Personal Privacy
ex. (b)(6)

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	3	7	$20.00	$60.00
water	Color					
Water	Arsenic (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Total)	EPA 245.1	3	7	$40.00	$120.00
Water	Nickel (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Arsenic (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Diss)	EPA 245.1	3	7	$25.00	$75.00
Water	Nickel (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Organophosphorus Pesticides	EPA 8141A	3	7	$230.00	$690.00
Water	Ammonia as N	EPA 350.1	3	7	$30.00	$90.00
Water	Dissolved Organic Carbon	SM5310 B	3	7	$80.00	$240.00
Water	Dissolved Oxygen	SM4500-O G	3	7	$20.00	$60.00
Water	Hardness	EPA 200.7	3	7	$35.00	$105.00
Water	MBAS	SM5540 C	3	7	$30.00	$90.00
Water	Nitrate-Nitrite as N	EPA 353.2	3	7	$30.00	$90.00
Water	Orthophosphate as P	SM4500 P E	3	7	$20.00	$60.00
Water	pH in water	SM4500-H+ B	3	7	$20.00	$60.00
Water	Specific Conductance (EC)	SM2510 B	3	7	$25.00	$75.00
Water	Sulfate	SM4500 SO4 E	3	7	$20.00	$60.00
Water	Total Dissolved Solids	SM2540 C	3	7	$25.00	$75.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	3	7	$55.00	$165.00
Water	Total Organic Carbon	SM5310B	3	7	$70.00	$210.00
Water	Total phosphate as P	SM4500 P B, E	3	7	$25.00	$75.00
Water	Total Suspended Solids	SM2540 D	3	7	$25.00	$75.00
Water	Turbidity	SM2130 B	3	7	$20.00	$60.00
Water	Coliform, Total & Fecal	SM 9221 B, E	3	7	$35.00	$105.00
Water	Enterococcus	SM 9230 A, B	3	7	$55.00	$165.00
						$3,705.00

190057

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☑ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☑ Removed, _____

Site ID: [redacted]	**Latitude:** 33.9991	**Outfall Size:**
Location: Kelly Spring [redacted]	**Longitude:** -116.9756	
	HSA: 905.21	
	Observer(s): John Peterson	
Date: 4/14/19 **Time:** 757 a.m.		

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☑ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog Airtemp: 50°F

Last Rain ☐ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☑ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☑ Yes ☐ No

Flow Rate: 15.30 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~ml~~ gal
Time to Fill	19.61	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☑ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☑ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☑ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☑ Other algal	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☐ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☑ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☑ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☑ Observed Discharge ☑ Indirect Evidence ☑ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☑ No ☐ na (dry)

Source ID/Elimination Notes: _____

Field Screening Samples Collected? ☑ Yes ☐ No **Analytical Lab Samples Collected?** ☑ Yes ☐ No

Water Temp (°C)	14°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID: S-Rock	**Latitude:** 32.9979	**Outfall Size:**
Location: Rock Haven Spring. APN: 278-210-1800	**Longitude:** -116.9759	
	HSA: 905.21	
	Observer(s): John Peterson	
Date: 4/14/19 **Time:** 8:05 a.m		

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ < 72 hours ☐ < 72 hours but ≤ 0.1"

50°F Air temp

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: 11.97 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~pt~~ gal
Time to Fill	25.07	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☐ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☒ Indirect Evidence ☒ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☐ No ☐ na (dry)

Source ID/Elimination Notes: _____

Field Screening Samples Collected? Yes ☒ No **Analytical Lab Samples Collected?** Yes ☒ No

Water Temp (°C)	13°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

EnviroMatrix Analytical, Inc.

30 April 2019

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

EMA Log #: 19D0527

Project Name: Testing
Project Desc./#: Testing

Enclosed with this letter are the test results performed by subcontract laboratory for the following analyses:

- TOC – Liquid by SM5310B
- DOC – Liquid by SM 5310B

The samples were received by EnviroMatrix Analytical, Inc. intact and with chain-of-custody documentation. The test results and pertinent quality assurance/quality control data are listed on the attached tables.

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hard copy data report has been authorized by the following signature.

Dan Verdon
Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 9D16059

Project: 19D0527

Attn: Dan Verdon

Client: Enviromatrix Analytical, Inc
4340 Viewridge Avenue, Suite A
San Diego, CA 92123

Report Date: 4/29/2019
Received Date: 4/16/2019
Turnaround Time: Normal
Phones: (858) 560-7717
Fax: (858) 560-7763
P.O. #:
Billing Code:

Dear Dan Verdon,

Enclosed are the results of analyses for samples received 4/16/19 with the Chain-of-Custody document. The samples were received in good condition, at 13.8 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Personal Privacy
9D16059-01 (Water)
Sampled: 04/14/19 8:00 by Client

Analyte		Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: SM 5310B	**Batch ID:** W9D1194	**Instr:** TOC02		**Prepared:** 04/18/19 13:21			**Analyst:** jlp	
Total Organic Carbon (TOC)		5.8	0.0090	0.30	mg/l	1	04/18/19 14:06	
Method: SM 5310B	**Batch ID:** W9D1325	**Instr:** TOC02		**Prepared:** 04/22/19 12:13			**Analyst:** jlp	
Dissolved Organic Carbon		5.8	0.013	0.30	mg/l	1	04/22/19 13:24	A-01

Sample: S Rock
9D16059-02 (Water)
Sampled: 04/14/19 8:00 by Client

Analyte		Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: SM 5310B	**Batch ID:** W9D1194	**Instr:** TOC02		**Prepared:** 04/18/19 13:21			**Analyst:** jlp	
Total Organic Carbon (TOC)		4.8	0.0090	0.30	mg/l	1	04/18/19 14:06	
Method: SM 5310B	**Batch ID:** W9D1325	**Instr:** TOC02		**Prepared:** 04/22/19 12:13			**Analyst:** jlp	
Dissolved Organic Carbon		4.7	0.013	0.30	mg/l	1	04/22/19 13:24	A-01

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W9D1194-BLK1)					**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	0.0566	0.0090	0.30	mg/l							J
LCS (W9D1194-BS1)					**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	1.02	0.0090	0.30	mg/l	1.00		102	85-115			
Matrix Spike (W9D1194-MS1)	**Source: 9D11084-01**				**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	6.25	0.0090	0.30	mg/l	5.00	*2.05*	84	76-115			
Matrix Spike Dup (W9D1194-MSD1)	**Source: 9D11084-01**				**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	5.96	0.0090	0.30	mg/l	5.00	*2.05*	78	76-115	5	20	
Blank (W9D1325-BLK1)					**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	0.0381	0.013	0.30	mg/l							J
LCS (W9D1325-BS1)					**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	0.968	0.013	0.30	mg/l	1.00		97	85-115			
Matrix Spike (W9D1325-MS1)	**Source: 9D16059-02**				**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	9.95	0.013	0.30	mg/l	5.00	*4.65*	106	74-120			
Matrix Spike Dup (W9D1325-MSD1)	**Source: 9D16059-02**				**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	9.74	0.013	0.30	mg/l	5.00	*4.65*	102	74-120	2	20	

[illegible] Park Avenue, City of Industry, CA 91745 | Phone (626) 336-2133 | Fax (626) 336-2634
www.weckla.com

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

Notes and Definitions

Item	Definition
A-01	samples filtered w/0.45um and preserved to ph<2 in lab 04/16/19 16:00 pm jlp
J	Estimated conc. detected <MRL and >MDL.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Reviewed by:

Regina Giancola
Project Manager

EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L2457.01 • LACSD #10143 • NELAP-CA #04229CA • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

WECK LABORATORIES, INC

Sample Receipt

WORK ORDER:	9D16059	**Printed:**	4/17/2019 5:28:10PM
Client:	Enviromatrix Analytical, Inc	**Project Manager:**	Regina Giancola
Project:	Enviromatrix Analytical	**Project Number:**	19D0527

Report To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763

Invoice To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone :(858) 560-7717
Fax: (858) 560-7763

Date Due:	04/30/19 09:00 (10 day TAT)		
Received By:	Lester K. Abad	**Date Received:**	04/16/19 08:55
Logged In By:	Lester K. Abad	**Date Logged In:**	04/16/19 14:35

Samples Received at:	**13.8°C**				
All containers intact:	**Yes**	Sample labels & COC agree	**Yes**	Sufficient holding time for all tests	**Yes**
Custody Seals	**No**	Samples preserved properly	**Yes**	Received on Ice	**Yes**
Chain of custody completed	**Yes**	Sample volume sufficient	**Yes**	Appropriate sample containers	**Yes**

Samples

Analysis	Expires	Analysis Comments
9D16059-01 Sample Name: N Kelly [Water] Sampled 4/14/2019 08:00		
DOC-5310B Comb	05/12/19 08:00	
TOC-5310B_w Comb	05/12/19 08:00	
9D16059-02 Sample Name: S Rock [Water] Sampled 4/14/2019 08:00		
DOC-5310B Comb	05/12/19 08:00	
TOC-5310B_w Comb	05/12/19 08:00	

Regina Giancola — 4/17/2019
Authorized Signature — Date

Note:
If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

14859 Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19D0527

9D16059

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: N Kelly	**Water**	**Sampled:04/14/19 08:00**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/12/19 08:00		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/16/19 08:00		
Containers Supplied:				
Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)	
Sample ID: S Rock	**Water**	**Sampled:04/14/19 08:00**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/12/19 08:00		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/16/19 08:00		
Containers Supplied:				
Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)	

*ok to proceed over temp -RG 4/16

Released By	Date	Received By	Date
Amanda Walster	4-15-19		
Fedex	4-16-19	13:8	8:55 T-0209
Released By	Date	Received By	Date

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19D0527

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: N Kelly	**Water**	**Sampled:04/14/19 08:00**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/12/19 08:00		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/16/19 08:00		
Containers Supplied:				
Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)	
Sample ID: S Rock	**Water**	**Sampled:04/14/19 08:00**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/12/19 08:00		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/16/19 08:00		
Containers Supplied:				
Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)	

Released By	Date	Received By	Date
Amanda Walster	4-15-19		
Released By	Date	Received By	Date

Personal Privacy ex. (b)(6)

[redacted]

19D0527

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Page___ of ___

EMA LOG #:

Personal Privacy ex. (b)(6)

[redacted]

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	X see attached
1	N Kelly																							
2	S Rock	comp		stream water	varies																			
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water surface water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day ☒ STD (7-business days)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A	Containers Properly Preseved: Yes No N/A
Custody Seals Intact: Yes No N/A	Temp @ Receipt: 3° Conice.
COC/Labels Agree: Yes No N/A	Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	4/14/19; 1040	Signature [signature]
Print John Peterson		Print Alejandra Avila
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address: sample times 1200 4/13/19, 1600 4/13/19, 2000 4/13/19, 2400 4/13/19

Project/Sample Comments: 0400 4/14/19, last sample 0800 4/14/19

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Analytical Services Quotation

Testing

Personal privacy Ex. (b) (6)

[redacted]

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	3	7	$20.00	$60.00
Water	Color					
Water	Arsenic (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Total)	EPA 245.1	3	7	$40.00	$120.00
Water	Nickel (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Arsenic (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Diss)	EPA 245.1	3	7	$25.00	$75.00
Water	Nickel (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Organophosphorus Pesticides	EPA 8141A	3	7	$230.00	$690.00
Water	Ammonia as N	EPA 350.1	3	7	$30.00	$90.00
Water	Dissolved Organic Carbon	SM5310 B	3	7	$80.00	$240.00
Water	Dissolved Oxygen	SM4500-O G	3	7	$20.00	$60.00
Water	Hardness	EPA 200.7	3	7	$35.00	$105.00
Water	MBAS	SM5540 C	3	7	$30.00	$90.00
Water	Nitrate-Nitrite as N	EPA 353.2	3	7	$30.00	$90.00
Water	Orthophosphate as P	SM4500 P E	3	7	$20.00	$60.00
Water	pH in water	SM4500-H+ B	3	7	$20.00	$60.00
Water	Specific Conductance (EC)	SM2510 B	3	7	$25.00	$75.00
Water	Sulfate	SM4500 SO4 E	3	7	$20.00	$60.00
Water	Total Dissolved Solids	SM2540 C	3	7	$25.00	$75.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	3	7	$55.00	$165.00
Water	Total Organic Carbon	SM5310B	3	7	$70.00	$210.00
Water	Total phosphate as P	SM4500 P B, E	3	7	$25.00	$75.00
Water	Total Suspended Solids	SM2540 D	3	7	$25.00	$75.00
Water	Turbidity	SM2130 B	3	7	$20.00	$60.00
Water	Coliform, Total & Fecal	SM 9221 B, E	3	7	$35.00	$105.00
Water	Enterococcus	SM 9230 A, B	3	7	$55.00	$165.00
						$3,705.00

19D0527

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

EnviroMatrix Analytical, Inc.

01 May 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19D0542

Project Name: Testing
Project Desc./#: April 15, 2019

Enclosed are the results of analyses for samples received by the laboratory on 04/15/19 09:50. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Testing

EMA Log #: 19D0542

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Warren Crossing 33.0029 LAT -117.0058 LONG	19D0542-01	Drinking Water	04/15/19 06:20	04/15/19 09:50

NOTE: The TOC/DOC and Synthetic Pyrethroids analyses were performed by a sub-contract laboratory, results to follow in a separate report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0029 LAT -117.0058 LONG (19D0542-01) Drinking Water Sampled: 04/15/19 06:20 Received: 04/15/19 09:50									
Arsenic	ND	0.002	mg/l	1	9041728	04/17/19	04/18/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.171**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041923	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041728	04/17/19	04/18/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	**0.048**	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0029 LAT -117.0058 LONG (19D0542-01) Drinking Water Sampled: 04/15/19 06:20 Received: 04/15/19 09:50									
Arsenic	ND	0.002	mg/l	1	9041566	04/15/19	04/15/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	ND	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9041924	04/19/19	04/19/19	EPA 245.1	
Nickel	ND	0.005	"	"	9041566	04/15/19	04/15/19	EPA 200.8	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0029 LAT -117.0058 LONG (19D0542-01) Drinking Water Sampled: 04/15/19 06:20 Received: 04/15/19 09:50									
Azinphos methyl	ND	0.25	ug/l	1	9041746	04/17/19	04/22/19	EPA 8141A	
Bolstar	ND	0.10	"	"	"	"	"	"	
Chlorpyrifos	ND	0.05	"	"	"	"	"	"	
Coumaphos	ND	0.25	"	"	"	"	"	"	
Demeton-o	ND	1.00	"	"	"	"	"	"	
Demeton-s	ND	1.00	"	"	"	"	"	"	
Diazinon	ND	0.05	"	"	"	"	"	"	
Dichlorvos	ND	0.10	"	"	"	"	"	"	
Disulfoton	ND	0.10	"	"	"	"	"	"	
Ethoprop	ND	0.05	"	"	"	"	"	"	
Fensulfothion	ND	0.25	"	"	"	"	"	"	
Fenthion	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Mevinphos	ND	0.25	"	"	"	"	"	"	
Methyl parathion	ND	0.10	"	"	"	"	"	"	
Phorate	ND	0.05	"	"	"	"	"	"	
Ronnel	ND	0.25	"	"	"	"	"	"	
Tetrachlorvinphos	ND	0.25	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	0.25	"	"	"	"	"	"	
Trichlorinate	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		*164 %*	*60-130*		"	"	"	"	*S-04*
Surrogate: Tributylphosphate		*120 %*	*60-130*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0029 LAT -117.0058 LONG (19D0542-01) Drinking Water Sampled: 04/15/19 06:20 Received: 04/15/19 09:50									
Ammonia as N	ND	0.10	mg/l	1	9041564	04/15/19	04/15/19	EPA 350.1	
Color	**11**	1	Color Units	"	9041674	04/15/19	04/15/19	SM2120 B	
Specific Conductance (EC)	**733**	1.00	umhos/cm	"	9041751	04/17/19	04/17/19	SM2510 B	
Hardness (Total)	**782**	10	mg CaCO3/L	"	9042606	04/26/19	04/30/19	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	"	9041671	04/15/19	04/15/19	SM5540 C	
Nitrate/Nitrite as N	**1.03**	0.10	"	2	9041666	04/17/19	04/17/19	EPA 353.2	
Total Kjeldahl Nitrogen	**0.5**	0.5	"	1	9042019	04/21/19	04/22/19	EPA 351.2	
Dissolved Oxygen	**11.2**	0.10	"	"	9042964	04/24/19	04/24/19	SM4500-O G	HT-01
pH at 25 deg C	**7.48**	0.10	pH Units	"	9041661	04/15/19	04/15/19	SM4500-H+ B	HT-15
Orthophosphate as P	ND	0.05	mg/l	"	9041662	04/15/19	04/15/19	SM4500 P E	
Phosphorus, Total	**0.21**	0.05	"	"	9041723	04/18/19	04/18/19	SM4500 P B, E	
Total Dissolved Solids	**449**	20.0	"	"	9041827	04/18/19	04/19/19	SM2540 C	
Total Suspended Solids	ND	20.0	"	"	9041909	04/18/19	04/19/19	SM2540 D	
Sulfate as SO4	**80.5**	25.0	"	5	9042351	04/22/19	04/22/19	SM4500 SO4 E	
Turbidity	**1.70**	0.05	NTU	1	9041672	04/15/19	04/15/19	SM2130 B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Microbiological Parameters by Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0029 LAT -117.0058 LONG (19D0542-01) Drinking Water Sampled: 04/15/19 06:20 Received: 04/15/19 09:50									
Total Coliforms	**300**	2	MPN/100 ml	1	9041579	04/15/19	04/19/19	SM 9221 B, E	
Fecal Coliforms	**130**	2	"	"	"	"	04/18/19	"	
Enterococcus	**500**	2	"	"	9041580	"	04/19/19	SM 9230 A, B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Blank (9041728-BLK1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Thallium	ND	0.00100	mg/l							
Cadmium	ND	0.001	"							
Iron	ND	0.050	"							
Lead	ND	0.005	"							
Selenium	ND	0.005	"							
Chromium	ND	0.005	"							
Nickel	ND	0.005	"							
Copper	ND	0.010	"							
Zinc	ND	0.020	"							
Arsenic	ND	0.002	"							
LCS (9041728-BS1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Thallium	0.0542	0.00100	mg/l	0.0500		108	85-115			
Nickel	0.052	0.005	"	0.0500		104	85-115			
Iron	0.057	0.050	"	0.0500		114	85-115			
Chromium	0.051	0.005	"	0.0500		102	85-115			
Lead	0.051	0.005	"	0.0500		103	85-115			
Cadmium	0.051	0.001	"	0.0500		102	85-115			
Copper	0.052	0.010	"	0.0500		104	85-115			
Zinc	0.053	0.020	"	0.0500		107	85-115			
Selenium	0.050	0.005	"	0.0500		99	75-125			
Arsenic	0.051	0.002	"	0.0500		103	85-115			
LCS Dup (9041728-BSD1)				Prepared: 04/17/19 Analyzed: 04/18/19						
Cadmium	0.051	0.001	mg/l	0.0500		103	85-115	0.2	20	
Selenium	0.049	0.005	"	0.0500		98	75-125	0.6	20	
Iron	0.054	0.050	"	0.0500		108	85-115	5	20	
Lead	0.052	0.005	"	0.0500		103	85-115	0.4	20	
Chromium	0.051	0.005	"	0.0500		103	85-115	0.2	20	
Copper	0.052	0.010	"	0.0500		104	85-115	0.3	20	
Nickel	0.052	0.005	"	0.0500		104	85-115	0.05	20	
Zinc	0.053	0.020	"	0.0500		105	85-115	1	20	
Thallium	0.0513	0.00100	"	0.0500		103	85-115	5	20	
Arsenic	0.050	0.002	"	0.0500		101	85-115	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Duplicate (9041728-DUP1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Copper	0.001	0.010	mg/l		0.001			0.9	20	
Selenium	ND	0.005	"		ND				20	
Cadmium	0.0003	0.001	"		0.0003			6	20	
Iron	0.247	0.050	"		0.248			0.2	20	
Zinc	0.003	0.020	"		0.003			8	20	
Nickel	0.0003	0.005	"		0.0003			12	20	
Thallium	ND	0.00100	"		0.000131				20	
Lead	0.0008	0.005	"		0.001			34	20	QR-04
Chromium	0.0003	0.005	"		0.0004			25	20	QR-04
Arsenic	0.0002	0.002	"		0.0002			15	20	
Matrix Spike (9041728-MS1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Nickel	0.051	0.005	mg/l	0.0500	0.0003	102	70-130			
Chromium	0.051	0.005	"	0.0500	0.0004	102	70-130			
Cadmium	0.051	0.001	"	0.0500	0.0003	102	70-130			
Copper	0.052	0.010	"	0.0500	0.001	101	70-130			
Iron	0.287	0.050	"	0.0500	0.248	80	70-130			
Lead	0.052	0.005	"	0.0500	0.001	102	70-130			
Zinc	0.055	0.020	"	0.0500	0.003	105	70-130			
Selenium	0.051	0.005	"	0.0500	ND	101	75-125			
Thallium	0.0519	0.00100	"	0.0500	0.000131	103	70-130			
Arsenic	0.052	0.002	"	0.0500	0.0002	103	70-130			
Matrix Spike (9041728-MS2)		**Source: 19D0475-03**		Prepared: 04/17/19	Analyzed: 04/18/19					
Zinc	0.065	0.020	mg/l	0.0500	0.003	125	70-130			
Lead	0.053	0.005	"	0.0500	0.0009	104	70-130			
Thallium	0.0525	0.00100	"	0.0500	ND	105	70-130			
Chromium	0.052	0.005	"	0.0500	0.0002	103	70-130			
Cadmium	0.052	0.001	"	0.0500	0.0002	103	70-130			
Nickel	0.052	0.005	"	0.0500	ND	105	70-130			
Copper	0.053	0.010	"	0.0500	0.0008	104	70-130			
Selenium	0.050	0.005	"	0.0500	ND	100	75-125			
Iron	0.062	0.050	"	0.0500	0.009	106	70-130			
Arsenic	0.051	0.002	"	0.0500	ND	102	70-130			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: [redacted]
Project Name: Testing

EMA Log #: 19D0542

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Matrix Spike Dup (9041728-MSD1)		**Source: 19D0527-02**		Prepared: 04/17/19		Analyzed: 04/18/19				
Nickel	0.053	0.005	mg/l	0.0500	0.0003	105	70-130	3	20	
Lead	0.061	0.005	"	0.0500	0.001	119	70-130	14	20	
Selenium	0.053	0.005	"	0.0500	ND	106	75-125	4	20	
Thallium	0.0598	0.00100	"	0.0500	0.000131	119	70-130	14	20	
Cadmium	0.053	0.001	"	0.0500	0.0003	106	70-130	3	20	
Iron	0.312	0.050	"	0.0500	0.248	129	70-130	8	20	
Copper	0.054	0.010	"	0.0500	0.001	105	70-130	4	20	
Zinc	0.066	0.020	"	0.0500	0.003	127	70-130	18	20	
Chromium	0.053	0.005	"	0.0500	0.0004	105	70-130	3	20	
Arsenic	0.052	0.002	"	0.0500	0.0002	104	70-130	0.9	20	
Batch 9041923										
Blank (9041923-BLK1)				Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l							
LCS (9041923-BS1)				Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200		105	75-125			
LCS Dup (9041923-BSD1)				Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200		104	75-125	0.7	20	
Duplicate (9041923-DUP1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9041923-MS1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	110	75-125			

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041923										
Matrix Spike Dup (9041923-MSD1)		**Source: 19D0697-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	107	75-125	3	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041566										
Blank (9041566-BLK1)				Prepared & Analyzed: 04/15/19						
Thallium	ND	0.00100	mg/l							
Selenium	ND	0.005	"							
Nickel	ND	0.005	"							
Cadmium	ND	0.001	"							
Chromium	ND	0.005	"							
Arsenic	ND	0.002	"							
Copper	ND	0.010	"							
Iron	ND	0.050	"							
Zinc	ND	0.020	"							
Lead	ND	0.005	"							
LCS (9041566-BS1)				Prepared & Analyzed: 04/15/19						
Nickel	0.099	0.005	mg/l	0.100		99	85-115			
Arsenic	0.099	0.002	"	0.100		99	75-125			
Selenium	0.100	0.005	"	0.100		100	75-125			
Cadmium	0.100	0.001	"	0.100		100	85-115			
Chromium	0.099	0.005	"	0.100		99	75-125			
Thallium	0.104	0.00100	"	0.100		104	85-115			
Copper	0.099	0.010	"	0.100		99	85-115			
Zinc	0.099	0.020	"	0.100		99	85-115			
Lead	0.098	0.005	"	0.100		98	75-125			
Iron	0.102	0.050	"	0.100		102	85-115			
LCS Dup (9041566-BSD1)				Prepared & Analyzed: 04/15/19						
Selenium	0.098	0.005	mg/l	0.100		98	75-125	1	20	
Cadmium	0.100	0.001	"	0.100		100	85-115	0.2	20	
Nickel	0.100	0.005	"	0.100		100	85-115	1	20	
Arsenic	0.099	0.002	"	0.100		99	75-125	0.4	20	
Thallium	0.101	0.00100	"	0.100		101	85-115	3	20	
Chromium	0.100	0.005	"	0.100		100	75-125	0.4	20	
Zinc	0.100	0.020	"	0.100		100	85-115	0.8	20	
Lead	0.100	0.005	"	0.100		100	75-125	2	20	
Iron	0.101	0.050	"	0.100		101	85-115	1	20	
Copper	0.100	0.010	"	0.100		100	85-115	1	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041566										
Duplicate (9041566-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Selenium	ND	0.005	mg/l		ND				20	
Cadmium	ND	0.001	"		ND				20	
Thallium	ND	0.00100	"		ND				20	
Nickel	0.0002	0.005	"		0.0002				20	
Arsenic	0.0002	0.002	"		0.0002			1	20	
Chromium	0.0002	0.005	"		0.0002				20	
Zinc	0.001	0.020	"		0.001			19	20	
Iron	0.178	0.050	"		0.185			4	20	
Lead	ND	0.005	"		ND				20	
Copper	ND	0.010	"		ND				20	
Matrix Spike (9041566-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Thallium	0.103	0.00100	mg/l	0.100	ND	103	70-130			
Selenium	0.101	0.005	"	0.100	ND	101	75-125			
Nickel	0.098	0.005	"	0.100	0.0002	98	70-130			
Arsenic	0.101	0.002	"	0.100	0.0002	100	75-125			
Cadmium	0.102	0.001	"	0.100	ND	102	70-130			
Chromium	0.098	0.005	"	0.100	0.0002	98	75-125			
Iron	0.278	0.050	"	0.100	0.185	92	70-130			
Copper	0.097	0.010	"	0.100	ND	97	70-130			
Lead	0.101	0.005	"	0.100	ND	101	75-125			
Zinc	0.103	0.020	"	0.100	0.001	102	70-130			
Matrix Spike Dup (9041566-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Selenium	0.100	0.005	mg/l	0.100	ND	100	75-125	0.8	20	
Cadmium	0.101	0.001	"	0.100	ND	101	70-130	0.6	20	
Chromium	0.098	0.005	"	0.100	0.0002	98	75-125	0.5	20	
Thallium	0.106	0.00100	"	0.100	ND	106	70-130	3	20	
Arsenic	0.101	0.002	"	0.100	0.0002	101	75-125	0.7	20	
Nickel	0.097	0.005	"	0.100	0.0002	97	70-130	0.7	20	
Iron	0.281	0.050	"	0.100	0.185	96	70-130	1	20	
Copper	0.096	0.010	"	0.100	ND	96	70-130	1	20	
Lead	0.101	0.005	"	0.100	ND	101	75-125	0.02	20	
Zinc	0.102	0.020	"	0.100	0.001	101	70-130	0.8	20	

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19D0542

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041924										
Blank (9041924-BLK1)				Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l							
LCS (9041924-BS1)				Prepared & Analyzed: 04/19/19						
Mercury	0.0021	0.0001	mg/l	0.00200		105	75-125			
LCS Dup (9041924-BSD1)				Prepared & Analyzed: 04/19/19						
Mercury	0.0021	0.0001	mg/l	0.00200		104	75-125	0.7	20	
Duplicate (9041924-DUP1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9041924-MS1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.0020	0.0001	mg/l	0.00200	ND	98	75-125			
Matrix Spike Dup (9041924-MSD1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/19/19						
Mercury	0.0020	0.0001	mg/l	0.00200	ND	100	75-125	2	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041746										
Blank (9041746-BLK1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Azinphos methyl	ND	0.25	ug/l							
Bolstar	ND	0.10	"							
Chlorpyrifos	ND	0.05	"							
Coumaphos	ND	0.25	"							
Demeton-o	ND	1.00	"							
Demeton-s	ND	1.00	"							
Diazinon	ND	0.05	"							
Dichlorvos	ND	0.10	"							
Disulfoton	ND	0.10	"							
Ethoprop	ND	0.05	"							
Fensulfothion	ND	0.25	"							
Fenthion	ND	0.05	"							
Malathion	ND	0.05	"							
Mevinphos	ND	0.25	"							
Methyl parathion	ND	0.10	"							
Phorate	ND	0.05	"							
Ronnel	ND	0.25	"							
Tetrachlorvinphos	ND	0.25	"							
Tokuthion (Prothiofos)	ND	0.25	"							
Trichlorinate	ND	0.05	"							
Surrogate: Triphenyl phosphate	*0.230*		*"*	*0.250*		*92*	*60-130*			
Surrogate: Tributylphosphate	*0.240*		*"*	*0.250*		*96*	*60-130*			
LCS (9041746-BS1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Bolstar	0.44	0.10	ug/l	0.500		88	60-130			
Diazinon	0.57	0.05	"	0.500		114	60-130			
Ethoprop	0.55	0.05	"	0.500		110	60-130			
Mevinphos	0.53	0.25	"	0.500		106	60-130			
Methyl parathion	0.51	0.10	"	0.500		102	60-130			
Phorate	0.55	0.05	"	0.500		110	60-130			
Ronnel	0.53	0.25	"	0.500		106	60-130			
Trichlorinate	0.56	0.05	"	0.500		112	60-130			
Surrogate: Triphenyl phosphate	*0.310*		*"*	*0.250*		*124*	*60-130*			
Surrogate: Tributylphosphate	*0.300*		*"*	*0.250*		*120*	*60-130*			

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Client Name: Personal Privacy ex.
Project Name: Testing

EMA Log #: 19D0542

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041746										
LCS Dup (9041746-BSD1)				Prepared: 04/17/19 Analyzed: 04/22/19						
Bolstar	0.45	0.10	ug/l	0.500		90	60-130	2	30	
Diazinon	0.57	0.05	"	0.500		114	60-130	0	30	
Ethoprop	0.53	0.05	"	0.500		106	60-130	4	30	
Mevinphos	0.55	0.25	"	0.500		110	60-130	4	30	
Methyl parathion	0.48	0.10	"	0.500		96	60-130	6	30	
Phorate	0.56	0.05	"	0.500		112	60-130	2	30	
Ronnel	0.51	0.25	"	0.500		102	60-130	4	30	
Trichlorinate	0.52	0.05	"	0.500		104	60-130	7	30	
Surrogate: Triphenyl phosphate	*0.270*		*"*	*0.250*		*108*	*60-130*			
Surrogate: Tributylphosphate	*0.270*		*"*	*0.250*		*108*	*60-130*			

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041564										
Blank (9041564-BLK1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	ND	0.10	mg/l							
LCS (9041564-BS1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	0.94	0.10	mg/l	1.00		94	90-110			
LCS Dup (9041564-BSD1)				Prepared & Analyzed: 04/15/19						
Ammonia as N	0.95	0.10	mg/l	1.00		95	90-110	2	20	
Duplicate (9041564-DUP1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	ND	0.10	mg/l		0.03				20	
Matrix Spike (9041564-MS1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	1.95	0.20	mg/l	2.00	ND	97	80-120			
Matrix Spike Dup (9041564-MSD1)		**Source: 19D0527-01**		Prepared & Analyzed: 04/15/19						
Ammonia as N	1.93	0.20	mg/l	2.00	ND	96	80-120	1	20	
Batch 9041661										
Duplicate (9041661-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
pH at 25 deg C	6.48	0.10	pH Units		6.54			0.8	20	
Reference (9041661-SRM1)				Prepared & Analyzed: 04/15/19						
pH at 25 deg C	5.87	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9041662										
Blank (9041662-BLK1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	ND	0.05	mg/l							

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041662										
LCS (9041662-BS1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.51	0.05	mg/l	0.500		102	80-120			
LCS Dup (9041662-BSD1)				Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.52	0.05	mg/l	0.500		104	80-120	2	20	
Duplicate (9041662-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.03	0.05	mg/l		0.03			0	20	
Matrix Spike (9041662-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.53	0.05	mg/l	0.500	0.03	100	80-120			
Matrix Spike Dup (9041662-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Orthophosphate as P	0.54	0.05	mg/l	0.500	0.03	101	80-120	0.8	20	
Batch 9041666										
Blank (9041666-BLK1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	0.05	mg/l							
LCS (9041666-BS1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		97	90-110			
LCS Dup (9041666-BSD1)				Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	0.49	0.05	mg/l	0.500		98	90-110	1	20	
Duplicate (9041666-DUP1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	1.00	mg/l		ND				20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041666										
Duplicate (9041666-DUP2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	ND	1.00	mg/l		ND				20	
Matrix Spike (9041666-MS1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.6	2.00	mg/l	20.0	ND	98	80-120			
Matrix Spike (9041666-MS2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.4	2.00	mg/l	20.0	ND	97	80-120			
Matrix Spike Dup (9041666-MSD1)		**Source: 19C0915-03**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.1	2.00	mg/l	20.0	ND	95	80-120	3	20	
Matrix Spike Dup (9041666-MSD2)		**Source: 19C0915-04**		Prepared & Analyzed: 04/17/19						
Nitrate/Nitrite as N	19.4	2.00	mg/l	20.0	ND	97	80-120	0	20	
Batch 9041671										
Blank (9041671-BLK1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (9041671-BS1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		92	80-120			
LCS Dup (9041671-BSD1)				Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		93	80-120	0.4	20	
Duplicate (9041671-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041671										
Matrix Spike (9041671-MS1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	99	80-120			
Matrix Spike Dup (9041671-MSD1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	98	80-120	0.5	20	
Batch 9041672										
Blank (9041672-BLK1)				Prepared & Analyzed: 04/15/19						
Turbidity	ND	0.05	NTU							
Duplicate (9041672-DUP1)		**Source: 19D0527-02**		Prepared & Analyzed: 04/15/19						
Turbidity	3.60	0.05	NTU		3.50			3	20	
Reference (9041672-SRM1)				Prepared & Analyzed: 04/15/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9041674										
Duplicate (9041674-DUP1)		**Source: 19D0567-01**		Prepared & Analyzed: 04/15/19						
Color	ND	1	Color Units		ND				20	
Reference (9041674-SRM1)				Prepared & Analyzed: 04/15/19						
Color	52	1	Color Units	50.0		104	80-120			
Batch 9041723										
Blank (9041723-BLK1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l							

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Client Name: [redacted]
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041723										
LCS (9041723-BS1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120			
LCS Dup (9041723-BSD1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120	0.4	20	
Duplicate (9041723-DUP1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l		ND				20	
Matrix Spike (9041723-MS1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	103	80-120			
Matrix Spike Dup (9041723-MSD1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	101	80-120	2	20	
Batch 9041751										
Duplicate (9041751-DUP1)		**Source: 19D0583-01**		Prepared & Analyzed: 04/17/19						
Specific Conductance (EC)	208	1.00	umhos/cm		207			0.5	20	
Reference (9041751-SRM1)				Prepared & Analyzed: 04/17/19						
Specific Conductance (EC)	435	1.00	umhos/cm	429		101	90-110			
Batch 9041827										
Blank (9041827-BLK1)				Prepared: 04/18/19 Analyzed: 04/19/19						
Total Dissolved Solids	ND	20.0	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: [redacted]
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041827										
Duplicate (9041827-DUP1)		**Source: 19D0475-02**		Prepared: 04/18/19	Analyzed: 04/19/19					
Total Dissolved Solids	1610	20.0	mg/l		1610			0.06	20	
Reference (9041827-SRM1)				Prepared: 04/18/19	Analyzed: 04/19/19					
Total Dissolved Solids	374	20.0	mg/l	378		99	8.64-111.3			
Batch 9041909										
Blank (9041909-BLK1)				Prepared: 04/18/19	Analyzed: 04/19/19					
Total Suspended Solids	ND	20.0	mg/l							
Duplicate (9041909-DUP1)		**Source: 19D0584-01**		Prepared: 04/18/19	Analyzed: 04/19/19					
Total Suspended Solids	316	20.0	mg/l		320			1	20	
Reference (9041909-SRM1)				Prepared: 04/18/19	Analyzed: 04/19/19					
Total Suspended Solids	100	20.0	mg/l	100		100	77.1-110			
Batch 9042019										
Blank (9042019-BLK1)				Prepared: 04/21/19	Analyzed: 04/22/19					
Total Kjeldahl Nitrogen	ND	0.5	mg/l							
LCS (9042019-BS1)				Prepared: 04/21/19	Analyzed: 04/22/19					
Total Kjeldahl Nitrogen	0.9	0.5	mg/l	1.00		94	90-110			
LCS Dup (9042019-BSD1)				Prepared: 04/21/19	Analyzed: 04/22/19					
Total Kjeldahl Nitrogen	1.0	0.5	mg/l	1.00		96	90-110	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy (b)(6)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042019										
Duplicate (9042019-DUP1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	0.3	0.5	mg/l		0.3			1	20	
Matrix Spike (9042019-MS1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	2.3	1.0	mg/l	2.00	ND	114	80-120			
Matrix Spike Dup (9042019-MSD1)		**Source: 19D0527-01**		Prepared: 04/21/19		Analyzed: 04/22/19				
Total Kjeldahl Nitrogen	2.2	1.0	mg/l	2.00	ND	112	80-120	2	20	
Batch 9042351										
Blank (9042351-BLK1)				Prepared & Analyzed: 04/22/19						
Sulfate as SO4	ND	5.0	mg/l							
LCS (9042351-BS1)				Prepared & Analyzed: 04/22/19						
Sulfate as SO4	9.2	5.0	mg/l	10.0		92	80-120			
LCS Dup (9042351-BSD1)				Prepared & Analyzed: 04/22/19						
Sulfate as SO4	9.4	5.0	mg/l	10.0		94	80-120	3	20	
Duplicate (9042351-DUP1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/22/19						
Sulfate as SO4	80.0	25.0	mg/l		80.5			0.6	20	
Matrix Spike (9042351-MS1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/22/19						
Sulfate as SO4	128	25.0	mg/l	50.0	80.5	96	80-120			
Matrix Spike Dup (9042351-MSD1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/22/19						
Sulfate as SO4	128	25.0	mg/l	50.0	80.5	95	80-120	0.2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19D0542

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9042606										
Blank (9042606-BLK1)				Prepared: 04/26/19 Analyzed: 04/30/19						
Hardness (Total)	ND	10	mg CaCO3/L							
Duplicate (9042606-DUP1)		**Source: 19D0586-01**		Prepared: 04/26/19 Analyzed: 04/30/19						
Hardness (Total)	2680	50	mg CaCO3/L		2590			3	20	R-05
Batch 9042964										
Duplicate (9042964-DUP1)		**Source: 19D0542-01**		Prepared & Analyzed: 04/24/19						
Dissolved Oxygen	11.0	0.10	mg/l		11.2			2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) **EMA Log #: 19D0542**
Project Name: Testing

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
QR-04	The RPD between the sample and sample duplicate is not valid since both results are below the reporting limit for this analyte.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
HT-01	This sample was analyzed outside the EPA recommended holding time.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Page___ of ___

CHAIN-OF-CUSTODY RECORD 19D0542

– EnviroMatrix Analytical, Inc. –

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

C Personal Privacy ex. (b)(6) [redacted]

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Color	see addendum			
1	Warren Crossing	Comp																						x	x			
2	33.0029 LAT	4/14-	24	PW																								
3	-117.0258 LONG	4/15	hr.																									
4		2019																										
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☒ Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preseved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 6°C Ice

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [illegible]	950 4/15/19	Signature [illegible]
Print Personal Privacy ex.		Print [illegible]
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments:

Sample Times: 4/14/2019 @ 6:40 a.m.; 2:40 p.m.; 7:00 p.m. } 24 hr Composite Flow-weighted
4/15/2019 @ 6:20 a.m. (last sample)

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

Analytical Services Quotation

Testing
[redacted]

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	3	7	$20.00	$60.00
Water	Synthetic Pyrethroids	GC/MS-EPA 8270	3	20	$400.00	$1,200.00
Water	Arsenic (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Total)	EPA 245.1	3	7	$40.00	$120.00
Water	Nickel (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Arsenic (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Diss)	EPA 245.1	3	7	$25.00	$75.00
Water	Nickel (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Organophosphorus Pesticides	EPA 8141A	3	7	$230.00	$690.00
Water	Ammonia as N	EPA 350.1	3	7	$30.00	$90.00
Water	Dissolved Organic Carbon	SM5310 B	3	7	$80.00	$240.00
Water	Dissolved Oxygen	SM4500-O G	3	7	$20.00	$60.00
Water	Hardness	EPA 200.7	3	7	$35.00	$105.00
Water	MBAS	SM5540 C	3	7	$30.00	$90.00
Water	Nitrate-Nitrite as N	EPA 353.2	3	7	$30.00	$90.00
Water	Orthophosphate as P	SM4500 P E	3	7	$20.00	$60.00
Water	pH in water	SM4500-H+ B	3	7	$20.00	$60.00
Water	Specific Conductance (EC)	SM2510 B	3	7	$25.00	$75.00
Water	Sulfate	SM4500 SO4 E	3	7	$20.00	$60.00
Water	Total Dissolved Solids	SM2540 C	3	7	$25.00	$75.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	3	7	$55.00	$165.00
Water	Total Organic Carbon	SM5310B	3	7	$70.00	$210.00
Water	Total phosphate as P	SM4500 P B, E	3	7	$25.00	$75.00
Water	Total Suspended Solids	SM2540 D	3	7	$25.00	$75.00
Water	Turbidity	SM2130 B	3	7	$20.00	$60.00
Water	Coliform, Total & Fecal	SM 9221 B, E	3	7	$35.00	$105.00
Water	Enterococcus	SM 9230 A, B	3	7	$55.00	$165.00
						$4,905.00

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763

Analytical Chemistry Laboratory

EnviroMatrix Analytical, Inc.

21 May 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19D0542

Project Name: Testing
Project Desc./#: April 15, 2019

Enclosed with this letter are the test results performed by subcontract laboratory for the following analyses:

- TOC – Liquid by SM5310B
- Synthetic Pyrethroids by NCI-GC/MS
- DOC – Liquid by SM 5310B

The samples were received by EnviroMatrix Analytical, Inc. intact and with chain-of-custody documentation. The test results and pertinent quality assurance/quality control data are listed on the attached tables.

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hard copy data report has been authorized by the following signature.

Dan Verdon
Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 9D16057

Project: 19D0542

Attn: Dan Verdon

Client: Enviromatrix Analytical, Inc
4340 Viewridge Avenue, Suite A
San Diego, CA 92123

Report Date: 5/21/2019
Received Date: 4/16/2019
Turnaround Time: Normal
Phones: (858) 560-7717
Fax: (858) 560-7763
P.O. #:
Billing Code:

Dear Dan Verdon,

Enclosed are the results of analyses for samples received 4/16/19 with the Chain-of-Custody document. The samples were received in good condition, at 13.8 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Warren Crossing 33.0029 — Sampled: 04/15/19 6:20 by Client

9D16057-01 (Water)

Analyte		Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 8270M	**Batch ID:** W9D1227	**Instr:** GCMS13		**Prepared:** 04/19/19 09:11			**Analyst:** EFC	
Allethrin		ND	0.85	2.0	ng/l	1	05/20/19 18:25	
Bifenthrin		ND	0.79	2.0	ng/l	1	05/20/19 18:25	
Cyfluthrin		ND	0.83	2.0	ng/l	1	05/20/19 18:25	
Cypermethrin		ND	0.66	2.0	ng/l	1	05/20/19 18:25	
Deltamethrin/Tralomethrin		ND	1.9	2.0	ng/l	1	05/20/19 18:25	
Dichloran		ND	0.80	2.0	ng/l	1	05/20/19 18:25	
Fenpropathrin (Danitol)		ND	2.0	2.0	ng/l	1	05/20/19 18:25	
Fenvalerate/Esfenvalerate		ND	0.98	2.0	ng/l	1	05/20/19 18:25	
L-Cyhalothrin		ND	1.2	2.0	ng/l	1	05/20/19 18:25	
Pendimethalin		ND	0.50	2.0	ng/l	1	05/20/19 18:25	
Permethrin		ND	5.0	5.0	ng/l	1	05/20/19 18:25	
Prallethrin		ND	0.92	2.0	ng/l	1	05/20/19 18:25	
Sumithrin (Phenothrin)		ND	2.4	10	ng/l	1	05/20/19 18:25	
Tefluthrin		ND	0.93	2.0	ng/l	1	05/20/19 18:25	
Perylene-d12		*138%*		*2-205*	*Conc: 362*		*05/20/19 18:25*	
Triphenyl phosphate		*134%*		*6-222*	*Conc: 354*		*05/20/19 18:25*	
Method: SM 5310B	**Batch ID:** W9D1194	**Instr:** TOC02		**Prepared:** 04/18/19 13:21			**Analyst:** jlp	
Total Organic Carbon (TOC)		**7.7**	0.0090	0.30	mg/l	1	04/18/19 14:06	
Method: SM 5310B	**Batch ID:** W9D1325	**Instr:** TOC02		**Prepared:** 04/22/19 12:13			**Analyst:** jlp	
Dissolved Organic Carbon		**6.6**	0.013	0.30	mg/l	1	04/22/19 13:24	A-01

WECK LABORATORIES INC

Certificate of Analysis

FINAL REPORT

Sample Results

(Continued)

Sample: Warren Crossing 33.0029

9D16057-01 (Water)

Sampled: 04/15/19 6:20 by Client

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier

Method: SM 5310B (Continued) **Batch ID:** W9D1325 **Instr:** TOC02 **Prepared:** 04/22/19 12:13 **Analyst:** jlp

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W9D1194-BLK1)					**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	0.0566	0.0090	0.30	mg/l							
LCS (W9D1194-BS1)					**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	1.02	0.0090	0.30	mg/l	1.00		102	85-115			
Matrix Spike (W9D1194-MS1)	**Source: 9D11084-01**				**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	6.25	0.0090	0.30	mg/l	5.00	*2.05*	84	76-115			
Matrix Spike Dup (W9D1194-MSD1)	**Source: 9D11084-01**				**Prepared & Analyzed: 04/18/19**						
Total Organic Carbon (TOC)	5.96	0.0090	0.30	mg/l	5.00	*2.05*	78	76-115	5	20	
Blank (W9D1325-BLK1)					**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	0.0381	0.013	0.30	mg/l							
LCS (W9D1325-BS1)					**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	0.968	0.013	0.30	mg/l	1.00		97	85-115			
Matrix Spike (W9D1325-MS1)	**Source: 9D16059-02**				**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	9.95	0.013	0.30	mg/l	5.00	*4.65*	106	74-120			
Matrix Spike Dup (W9D1325-MSD1)	**Source: 9D16059-02**				**Prepared & Analyzed: 04/22/19**						
Dissolved Organic Carbon	9.74	0.013	0.30	mg/l	5.00	*4.65*	102	74-120	2	20	

Pyrethroid Pesticides by EPA 8270M

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W9D1227-BLK1)					**Prepared: 04/19/19 Analyzed: 05/20/19**						
Allethrin	ND	0.85	2.0	ng/l							
Bifenthrin	ND	0.79	2.0	ng/l							
Cyfluthrin	ND	0.83	2.0	ng/l							
Cypermethrin	ND	0.66	2.0	ng/l							
Deltamethrin/Tralomethrin	ND	1.9	2.0	ng/l							
Dichloran	ND	0.80	2.0	ng/l							
Fenpropathrin (Danitol)	ND	2.0	2.0	ng/l							
Fenvalerate/Esfenvalerate	ND	0.98	2.0	ng/l							
L-Cyhalothrin	ND	1.2	2.0	ng/l							
Pendimethalin	ND	0.50	2.0	ng/l							
Permethrin	ND	5.0	5.0	ng/l							
Prallethrin	ND	0.92	2.0	ng/l							
Sumithrin (Phenothrin)	ND	2.4	10	ng/l							
Tefluthrin	ND	0.93	2.0	ng/l							
Perylene-d12	*261*			*ng/l*	*250*		*104*	*2-205*			
Triphenyl phosphate	*250*			*ng/l*	*250*		*100*	*6-222*			
LCS (W9D1227-BS1)					**Prepared: 04/19/19 Analyzed: 05/20/19**						
Allethrin	47.7	0.85	2.0	ng/l	50.0		95	50-150			
Bifenthrin	44.3	0.79	2.0	ng/l	50.0		89	50-150			
Cyfluthrin	54.1	0.83	2.0	ng/l	50.0		108	50-150			

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

Quality Control Results

(Continued)

Pyrethroid Pesticides by EPA 8270M (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
LCS (W9D1227-BS1)					**Prepared: 04/19/19 Analyzed: 05/20/19**						
Cypermethrin	55.4	0.66	2.0	ng/l	50.0		111	50-150			
Deltamethrin/Tralomethrin	57.4	1.9	2.0	ng/l	50.0		115	50-150			
Dichloran	44.0	0.80	2.0	ng/l	50.0		88	50-150			
Fenpropathrin (Danitol)	46.8	2.0	2.0	ng/l	50.0		94	50-150			
Fenvalerate/Esfenvalerate	58.8	0.98	2.0	ng/l	50.0		118	50-150			
L-Cyhalothrin	46.5	1.2	2.0	ng/l	50.0		93	50-150			
Pendimethalin	46.4	0.50	2.0	ng/l	50.0		93	50-150			
Permethrin	47.7	5.0	5.0	ng/l	50.0		95	50-150			
Prallethrin	49.9	0.92	2.0	ng/l	50.0		100	50-150			
Sumithrin (Phenothrin)	45.8	2.4	10	ng/l	50.0		92	50-150			
Tefluthrin	43.9	0.93	2.0	ng/l	50.0		88	50-150			
Perylene-d12	*266*			*ng/l*	*250*		*106*	*2-205*			
Triphenyl phosphate	*256*			*ng/l*	*250*		*103*	*6-222*			
LCS Dup (W9D1227-BSD1)					**Prepared: 04/19/19 Analyzed: 05/20/19**						
Allethrin	48.0	0.85	2.0	ng/l	50.0		96	50-150	0.6	50	
Bifenthrin	45.5	0.79	2.0	ng/l	50.0		91	50-150	3	50	
Cyfluthrin	55.4	0.83	2.0	ng/l	50.0		111	50-150	2	50	
Cypermethrin	56.5	0.66	2.0	ng/l	50.0		113	50-150	2	50	
Deltamethrin/Tralomethrin	57.5	1.9	2.0	ng/l	50.0		115	50-150	0.2	50	
Dichloran	45.5	0.80	2.0	ng/l	50.0		91	50-150	3	50	
Fenpropathrin (Danitol)	48.6	2.0	2.0	ng/l	50.0		97	50-150	4	50	
Fenvalerate/Esfenvalerate	60.0	0.98	2.0	ng/l	50.0		120	50-150	2	50	
L-Cyhalothrin	47.9	1.2	2.0	ng/l	50.0		96	50-150	3	50	
Pendimethalin	47.5	0.50	2.0	ng/l	50.0		95	50-150	2	50	
Permethrin	49.4	5.0	5.0	ng/l	50.0		99	50-150	4	50	
Prallethrin	50.3	0.92	2.0	ng/l	50.0		101	50-150	0.8	50	
Sumithrin (Phenothrin)	48.6	2.4	10	ng/l	50.0		97	50-150	6	50	
Tefluthrin	45.5	0.93	2.0	ng/l	50.0		91	50-150	3	50	
Perylene-d12	*252*			*ng/l*	*250*		*101*	*2-205*			
Triphenyl phosphate	*263*			*ng/l*	*250*		*105*	*6-222*			

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Notes and Definitions

Item	Definition
A-01	samples filtered w/0.45um and preserved to ph<2 in lab 04/16/19 16:00 pm jlp
J	Estimated conc. detected <MRL and >MDL.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	By ANAB
EPA 8270M in Water			
Dichloran	99-30-9	✓	
Tefluthrin	79538-32-2	✓	
Pendimethalin	40487-42-1	✓	
Allethrin	584-79-2	✓	
Prallethrin	23031-36-9	✓	
Bifenthrin	82657-04-3	✓	
Sumithrin (Phenothrin)	26002-80-2	✓	
L-Cyhalothrin	91465-08-6	✓	
Permethrin	52645-53-1	✓	
Cyfluthrin	68359-37-5	✓	
Cypermethrin	52315-07-8	✓	
Fenvalerate/Esfenvalerate	51630-58-1	✓	
Deltamethrin/Tralomethrin	52820-00-5	✓	
Fenpropathrin (Danitol)	39515-41-8	✓	
Triphenyl phosphate	115-86-6	✓	
Perylene-d12	1520-96-3	✓	

Reviewed by:

Regina Giancola
Project Manager

Water Board

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

WECK LABORATORIES, INC

Sample Receipt

WORK ORDER:	9D16057	**Printed:**	4/17/2019 5:28:12PM
Client:	Enviromatrix Analytical, Inc	**Project Manager:**	Regina Giancola
Project:	Enviromatrix Analytical	**Project Number:**	19D0542

Report To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763

Invoice To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone :(858) 560-7717
Fax: (858) 560-7763

Date Due:	04/30/19 09:00 (10 day TAT)		
Received By:	Lester K. Abad	**Date Received:**	04/16/19 08:55
Logged In By:	Lester K. Abad	**Date Logged In:**	04/16/19 14:33

Samples Received at:	**13.8°C**				
All containers intact:	**Yes**	Sample labels & COC agree	**Yes**	Sufficient holding time for all tests	**Yes**
Custody Seals	**No**	Samples preserved properly	**Yes**	Received on Ice	**Yes**
Chain of custody completed	**Yes**	Sample volume sufficient	**Yes**	Appropriate sample containers	**Yes**

Samples

Analysis	Expires	Analysis Comments
9D16057-01 Sample Name: Warren Crossing 33.0029 [Water] Sampled 4/15/2019 06:20		
DOC-5310B Comb	05/13/19 06:20	
Pyrethroids_w	04/22/19 06:20	
TOC-5310B_w Comb	05/13/19 06:20	

Regina Giancola — 4/17/2019
Authorized Signature — Date

Note:
If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

14859 Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19D0542

9D160057

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Warren Crossing 33.0029LAT - 117.0058 LONG				
Sample ID: Warren Crossing 33.0029 L/Water		**Sampled:04/15/19 06:20**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/13/19 06:20		
Synthetic Pyrethroids by NCI-G	04/24/19 16:00	04/18/19 06:20		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/17/19 06:20		
Containers Supplied:				
1L Amber- Unpres. (B)	1L Amber- Unpres. (C)	Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)
Voa Vial - Unpres (J)				

*ok to proceed over temp -RG 4/16

Released By	Date	Received By	Date
Amanda Webster	4-15-19 ~~4-19-19~~		
Fedex	4-16-19	19.8°	8:55 T-0209

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19D0542

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Warren Crossing 33.0029LAT - 117.0058 LONG				
Sample ID: Warren Crossing 33.0029 L/Water		**Sampled:04/15/19 06:20**		
TOC-Liquid by SM5310B	04/24/19 16:00	05/13/19 06:20		
Synthetic Pyrethroids by NCI-G	04/24/19 16:00	04/18/19 06:20		
DOC - Liquid by SM5310 B	04/24/19 16:00	04/17/19 06:20		
Containers Supplied:				
1L Amber- Unpres. (B)	1L Amber- Unpres. (C)	Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)
Voa Vial - Unpres (J)				

Released By	Date	Received By	Date
AW Amanda Walster	4-15-19 ~~4-15-19~~		
Released By	Date	Received By	Date

CHAIN-OF-CUSTODY RECORD

19D0542

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Personal Privacy ex. (b)(6)

[redacted]

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Coliform, T-E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Color	see addendum			
1	Warren Crossing	Comp																										
2	33.029 LAT	4/14	24	DW																				X	X			
3	-117.0250 LONG	4/15	hr.																									
4		2019																										
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☒ Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: (Yes) No N/A	Containers Properly Preserved: (Yes) No N/A
Custody Seals Intact: Yes No (N/A)	Temp @ Receipt: 6°C on ice
COC/Labels Agree: (Yes) No N/A	Sampled By: (Client) EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature: Personal Privacy ex. (b)(6)	950	Signature:
Print: Personal Privacy ex. (b)	4/15/19	Print: [illegible]
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments:

Sample times: 4/14/2019 @ 6:40 a.m.; 2:40 p.m.; 7:00 p.m. } 24 hr composite Flow-weighted
4/15/2019 @ 6:20 a.m. (last sample)

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

Analytical Services Quotation

Testing
Personal Privacy ex. (b)

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	3	7	$20.00	$60.00
Water	Synthetic Pyrethroids	GC/MS-EPA 8270	3	20	$400.00	$1,200.00
Water	Arsenic (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Total)	EPA 245.1	3	7	$40.00	$120.00
Water	Nickel (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Arsenic (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Mercury (Diss)	EPA 245.1	3	7	$25.00	$75.00
Water	Nickel (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Selenium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Thallium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Organophosphorus Pesticides	EPA 8141A	3	7	$230.00	$690.00
Water	Ammonia as N	EPA 350.1	3	7	$30.00	$90.00
Water	Dissolved Organic Carbon	SM5310 B	3	7	$80.00	$240.00
Water	Dissolved Oxygen	SM4500-O G	3	7	$20.00	$60.00
Water	Hardness	EPA 200.7	3	7	$35.00	$105.00
Water	MBAS	SM5540 C	3	7	$30.00	$90.00
Water	Nitrate-Nitrite as N	EPA 353.2	3	7	$30.00	$90.00
Water	Orthophosphate as P	SM4500 P E	3	7	$20.00	$60.00
Water	pH in water	SM4500-H+ B	3	7	$20.00	$60.00
Water	Specific Conductance (EC)	SM2510 B	3	7	$25.00	$75.00
Water	Sulfate	SM4500 SO4 E	3	7	$20.00	$60.00
Water	Total Dissolved Solids	SM2540 C	3	7	$25.00	$75.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	3	7	$55.00	$165.00
Water	Total Organic Carbon	SM5310B	3	7	$70.00	$210.00
Water	Total phosphate as P	SM4500 P B, E	3	7	$25.00	$75.00
Water	Total Suspended Solids	SM2540 D	3	7	$25.00	$75.00
Water	Turbidity	SM2130 B	3	7	$20.00	$60.00
Water	Coliform, Total & Fecal	SM 9221 B, E	3	7	$35.00	$105.00
Water	Enterococcus	SM 9230 A, B	3	7	$55.00	$165.00
						$4,905.00

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763

Analytical Chemistry Laboratory

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☒ Visual ☐ Follow-Up ***Station Class:*** ☑ Field ☐ Removed,_____

Site ID: Warren Crossing	**Latitude:** 33.0029	**Outfall Size:** 48"
Location: City of Poway MS4 @ Lake Poway	**Longitude:** -117.0058	
	HSA: 965.21	
	Observer(s): Personal privacy Ex. (b)(6) [redacted]	
Date: 4/14/19	**Time:** 6:40am	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☑ Yes ☐ No

Flow Rate: 52 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~ml~~ Gal
Time to Fill	5.77	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Water temp: 13.5°C

Observations

Odor	☑ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☑ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☑ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☑ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☑ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☑ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☑ None

Evidence of Illegal Dumping: ☑ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☑ Aquatic Health

Comments: Hydromodification due to abandoned CMP/ waste blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☑ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☑ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☑ Other Springs ☐ Unable to Determine

Basis for Source Identification: ☑ Observed Discharge ☐ Indirect Evidence ☑ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☑ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☑ Yes ☐ No **Analytical Lab Samples Collected?** ☑ Yes ☐ No

Water Temp (°C)	13.5	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☑ Follow-Up **Station Class:** ☑ Field ☐ Removed, _____

Site ID: Warren crossing	**Latitude:** 33.0029	**Outfall Size:** 48"
Location: City of Poway MS4 @ Lake Poway	**Longitude:** -117.0058	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: 4/14/19	**Time:** 2:40 p.m	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☑ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☑ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☑ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☑ Yes ☐ No ☐ Unknown

Flow Rate: 23 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.*

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~gal~~ qt
Time to Fill	13.04	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

21°C water temp.

Observations

Odor	☑ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☑ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☑ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☑ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☑ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☑ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☑ None

Evidence of Illegal Dumping: ☑ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☑ Aquatic Health

Comments: Hydromodification due to abandoned CMP / blockage.

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☑ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☑ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry) ☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other _____ ☐ Unable to Determine

Basis for Source Identification: ☑ Observed Discharge ☐ Indirect Evidence ☑ Historical Data ☐ Other _____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☑ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No

Water Temp (°C)	21	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID: Warren Crossing	**Latitude:** 33.0029	**Outfall Size:** 48in
Location: City of Poway MS4 @ Lake Poway	**Longitude:** -117.0058	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: 4/14/19	**Time:** 7:00 pm	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: 40 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~ml~~ gal
Time to Fill	7.5	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☒ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydro modification due to abandoned CMP / wash blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No

Water Temp (°C)	16	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID: Warren ~~[illegible]~~ Crossing	**Latitude:** 33.0029	**Outfall Size:** 48"
Location: City of Poway MS4 @ Lake Poway	**Longitude:** -117.0058	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: 4/15/19	**Time:** 6:20 a.m.	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: 55 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~ml~~ Gal
Time to Fill	5.45	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☒ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydromodification due to abandoned CMP / weir blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No

Water Temp (°C)	13.5	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

ENTHALPY
ANALYTICAL
TOXICITY LABORATORY & CONSULTING

Chronic Toxicity Testing Results for [redacted]

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

Project/Sample ID: Warren Crossing

April 2019

Prepared for: [redacted]

Personal Privacy ex. (b)(6)

Prepared by: **Enthalpy Analytical (formerly Nautilus Environmental)**

Submitted: **May 9, 2019**

Data Quality Assurance:

- Nautilus Environmental is accredited in accordance with NELAP by the State of Oregon Environmental Laboratory Accreditation Program (ORELAP ID 4053). It is also certified by the State of California Water Resources Control Board Environmental Laboratory Accreditation Program (Certificate No. 1802) and the State of Washington Department of Ecology (Lab ID C552).
- All data have been reviewed and verified.
- All test results have met minimum test acceptability criteria under their respective EPA protocols, unless otherwise noted in this report.
- All test results have met internal Quality Assurance Program requirements.

Results verified by: _____
Eric Green, Project Manager

California
4340 Vandever Avenue
San Diego, California 92120
858.587.7333
fax: 858.587.3961

Materials & Methods

Table 1. Sample Information

Client:	[redacted]
Sample ID:	Warren Crossing
Monitoring Period:	April 2019
Sample Collection Dates:	4/15/19, 06:20
Sample Receipt Dates:	4/15/19, 10:30
Sample Method/Material:	Grab sample of ambient water

Table 2. Water Quality Parameters Measured upon Sample Receipt

Receipt Date	pH	DO (mg/L)	Temperature (°C)	Salinity (ppt)	Conductivity (µS/cm)	Hardness (mg/L as $CaCO_3$)	Alkalinity (mg/L as $CaCO_3$)	Total Chlorine (mg/L)
4/15/19	7.79	10.7	5.2	0.4	747	138	70	0.02

Table 3. Chronic Fathead Minnow Test Specifications

Test Start:	4/16/19, 17:45
Test End:	4/23/19, 10:10
Test Organism:	*Pimephales promelas* (fathead minnow)
Test Organism Source; Age:	Aquatic Biosystems (Fort Collins, CO); 1 day old at initiation
Protocol Used:	EPA/821/R-02/013, 2002 Freshwater Chronic Manual
Test Acceptability Criteria:	Mean control survival ≥ 80 percent and mean control biomass ≥ 0.25 mg/organism
Lab Control:	Diluted mineral water (per EPA protocol)
Test Concentrations:	100% sample, plus lab control
Statistical Software:	CETIS™, version 1.8.7.20

Table 4. Chronic Water Flea Test Specifications

Test Start:	4/16/19, 15:30
Test End:	4/22/19, 15:35
Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source; Age:	In-House Culture; < 24 hours
Protocol Used:	EPA/821/R-02/013, 2002 Freshwater Chronic Manual
Test Acceptability Criteria:	Mean lab control survival ≥ 80% and ≥ 60% of surviving females produce 3 or more broods; mean number of offspring ≥ 15 per surviving female
Lab Control:	Diluted mineral water (per EPA protocol)
Test Concentrations:	100% sample, plus lab control
Statistical Software:	CETIS™, version 1.8.7.20

Table 5. Chronic Green Algae Test Specifications

Test Start:	4/16/19, 15:45
Test End:	4/20/19, 12:50
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source; Age:	In-House Culture; 5 days
Protocol Used:	EPA/821/R-02/013, 2002 Chronic Freshwater Manual
Test Acceptability Criteria:	Mean control density of ≥ 10^6 cells/mL and < 20% variability among control replicates (CV)
Lab Control:	Diluted mineral water (per EPA protocol)
Test Concentrations:	100% sample, plus lab control
Statistical Software:	CETIS™, version 1.8.7.20

Statistical Analysis

Chronic toxicity test biological endpoint data were analyzed using the Test of Significant Toxicity (TST) t-test approach specified in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (USEPA 2010). Organism performance in the sample was compared to that observed in the concurrent laboratory control exposure. The TST calculation applies a modified t-test that takes into account both the statistical power of the test and magnitude of biological effects in determining the presence of a response. Results are reported as "Pass" if a sample is considered non-toxic according to the TST calculation, or "Fail" if considered toxic according to TST. The TST analysis was performed using the Comprehensive Environmental Toxicity Information System™ (CETIS) by Tidepool Scientific Software.

Results

No significant effects were observed as compared to the lab control, and the Warren Crossing sample resulted in a "Pass" using the TST calculation for all species and endpoints tested. Test data and statistical results are summarized in Table 6. Raw data and statistical analyses for all testing can be found in Appendix A. Sample receipt information and chain of custody forms are in Appendices B and C, respectively.

Table 6. Summary of Statistical Results – Warren Crossing

Species and Endpoint	Lab Control	100% Sample	Percent Effect	TST (Pass/Fail)
Fathead Minnow				
Survival (%)	98.3	86.7	12	Pass
Growth (mg/org)	0.329	0.287	13	Pass
Water Flea				
Survival (%)	100	100	0.0	Pass
Reproduction (# neonates)	26.5	26.5	0.0	Pass
Green Algae				
Cell Density (10^6 cells/mL)	2.87	3.07	- 6.9	Pass

Percent Effect = ((Mean Lab Control Response – Mean Sample Response)/Mean Lab Control Response)*100. A negative value indicates better organism performance in the sample compared to that in the control.

TST: Pass = sample is non-toxic according to the TST calculation; Fail = sample is toxic according to the TST calculation

Note: TST analysis is not appropriate for the *Ceriodaphnia* chronic survival endpoint because the test design includes only one organism per replicate. Therefore, the result for the chronic survival endpoint is based on percent effect (PE) compared to control. For the survival endpoint, the TST result is considered a Pass (non-toxic) if PE <25 and a Fail (toxic) if PE ≥ 25.

Quality Assurance

The sample was received the same day as collected and within the appropriate temperature range, and all tests were initiated within 36-hours from sample collection. Mean control responses for all species met the minimum test acceptability criteria. Appropriate alpha levels were used for statistical analyses according to TST Implementation Document guidelines (EPA 2010). A list of data qualifier codes can be found in Appendix D.

Reference Toxicant

Results for reference toxicant testing used to monitor laboratory performance and test organism sensitivity are summarized in Table 7. Median effect concentration values were within two standard deviations of the historical means, indicating typical organism sensitivity to copper for our laboratory. Reference toxicant test control charts are presented in Appendix E.

Table 7. Summary of Statistical Results for Reference Toxicant Tests

Species and Endpoint	EC/IC/LC_{50} (µg/L copper)	Historical EC/IC/LC_{50} ± 2 SD (µg/L copper)
Fathead Minnow		
Survival	95.2	89.4 ± 59.3
Growth	105	90.1 ± 48.1
Water Flea		
Survival	70.7	74.9 ± 30.2
Reproduction	76.6	69.8 ± 21.9
Green Algae		
Cell Density	58.9	56.3 ± 4.28

NOEC = The highest Concentration tested that results in No Observed Effect

EC/IC/LC_{50} = The concentration expected to a cause an adverse/inhibition/lethal effect to 50 percent of the test organisms.

Historical EC/IC/LC_{50} ± 2 SD = The mean EC/IC/LC_{50} from the previous 20 tests performed by Nautilus, plus or minus two standard deviations (SD)

References

Tidepool Scientific Software. 2000-2013. CETIS Comprehensive Environmental Toxicity Information System Software, Version 1.8.7.20.

USEPA. 2002. Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA/821/R-02/013. October 2002.

USEPA. 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. EPA/833/R-10/003. June 2010.

Appendix A

Test Data and Statistical Analyses

Fathead Minnow

CETIS Summary Report

Report Date: 29 Apr-19 12:53 (p 1 of 1)
Test Code: 1904-S148 | 17-5569-4531

Fathead Minnow 7-d Larval Survival and Growth Test — **Nautilus Environmental (CA)**

Batch ID:	05-3755-7741	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	16 Apr-19 17:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Diluted Mineral Water (8:2)
Ending Date:	23 Apr-19 10:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	6d 16h	**Source:**	Aquatic Biosystems, CO	**Age:**	1d

Sample ID:	18-6053-7729	**Code:**	19-0472	**Client:**	Personal Privacy ex. (b)(6)
Sample Date:	15 Apr-19 06:20	**Material:**	(A) ~~Effluent Sample~~ Ambient Water	**Project:**	
Receive Date:	15 Apr-19 10:30	**Source:**	Warren Crossing (KevinKelly)		
Sample Age:	35h (5.2 °C)	**Station:**	Warren Crossing		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
17-6399-9140	7d Survival Rate	100	>100	NA	4.88%	1	TST-Welch's t Test
17-3737-4232	Mean Dry Biomass-mg	100	>100	NA	4.48%	1	TST-Welch's t Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
17-6399-9140	7d Survival Rate	Control Resp	0.9833	0.8 - NL	Yes	Passes Acceptability Criteria
17-3737-4232	Mean Dry Biomass-mg	Control Resp	0.3285	0.25 - NL	Yes	Passes Acceptability Criteria
17-3737-4232	Mean Dry Biomass-mg	PMSD	0.04477	0.12 - 0.3	Yes	Below Acceptability Criteria (B)

7d Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	6	0.9833	0.9405	1	0.9	1	0.01667	0.04082	4.15%	0.0%
100		6	0.8667	0.6829	1	0.6	1	0.07149	0.1751	20.21%	11.86%

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	6	0.3285	0.3152	0.3418	0.308	0.344	0.005156	0.01263	3.85%	0.0%
100		6	0.2867	0.2356	0.3377	0.205	0.326	0.01986	0.04866	16.97%	12.73%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
0	Lab Control	0.9	1	1	1	1	1
100		0.7	1	1	1	0.9	0.6

Mean Dry Biomass-mg Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6
0	Lab Control	0.308	0.344	0.327	0.322	0.337	0.333
100		0.205	0.32	0.311	0.326	0.309	0.249

(A) EG Q18 5/2/19
(B) PMSD criteria does not apply to TST analysis

CETIS Analytical Report

Report Date: 29 Apr-19 12:53 (p 1 of 2)
Test Code: 1904-S148 | 17-5569-4531

Fathead Minnow 7-d Larval Survival and Growth Test — **Nautilus Environmental (CA)**

Analysis ID:	17-6399-9140	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	29 Apr-19 12:53	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Angular (Corrected)	NA	C*b < T	NA	NA	0.75	4.88%	Passes 7d survival rate

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:25%)
Lab Control		100*	1.925	0.7267	0.071	5	0.0561	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07470229	0.07470229	1	2.514	0.1439	Non-Significant Effect
Error	0.2971622	0.02971622	10			
Total	0.3718645		11			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	12.43	14.94	0.0152	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8546	0.8025	0.0419	Normal Distribution

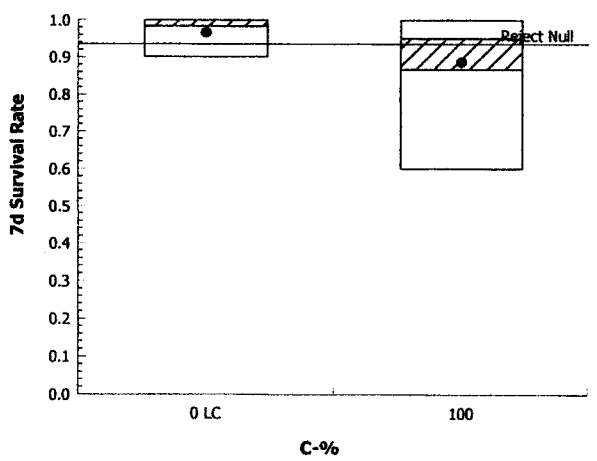
7d Survival Rate Summary

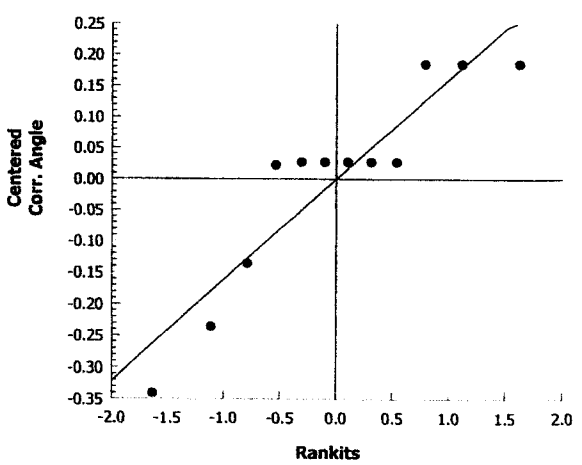
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	6	0.9833	0.9405	1	1	0.9	1	0.01667	4.15%	0.0%
100		6	0.8667	0.6829	1	0.95	0.6	1	0.07149	20.21%	11.86%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	6	1.385	1.315	1.455	1.412	1.249	1.412	0.02716	4.8%	0.0%
100		6	1.227	0.9809	1.473	1.331	0.8861	1.412	0.09575	19.11%	11.39%

Graphics





Fathead Minnow 7-d Larval Survival and Growth Test — **Nautilus Environmental (CA)**

Analysis ID:	17-3737-4232	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.7
Analyzed:	29 Apr-19 12:53	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	4.48%	Passes mean dry biomass-mg

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:25%)
Lab Control		100*	1.991	0.7267	0.015	5	0.0516	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005250092	0.005250092	1	4.155	0.0688	Non-Significant Effect
Error	0.01263483	0.001263483	10			
Total	0.01788492		11			

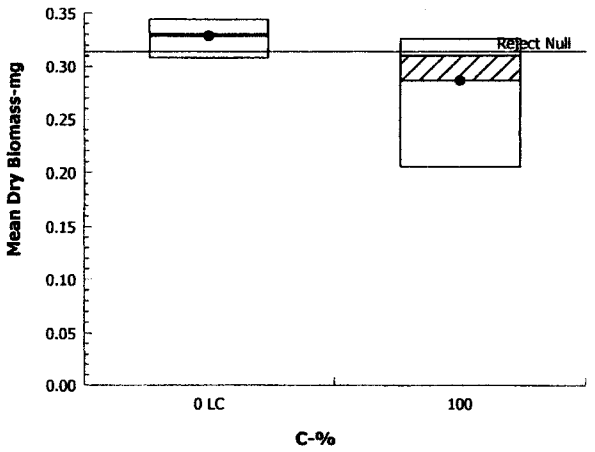
Distributional Tests

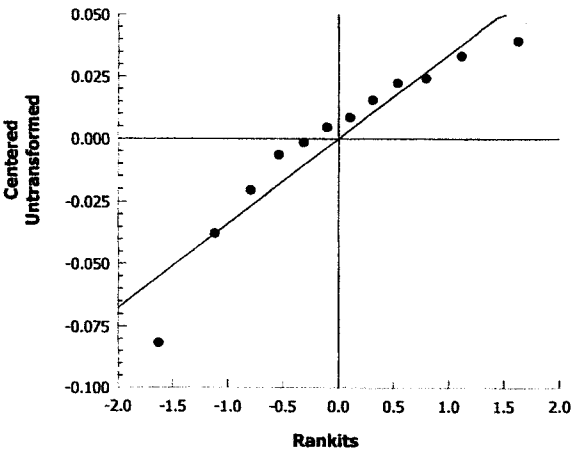
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	14.84	14.94	0.0101	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9001	0.8025	0.1590	Normal Distribution

Mean Dry Biomass-mg Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	6	0.3285	0.3152	0.3418	0.33	0.308	0.344	0.005156	3.85%	0.0%
100		6	0.2867	0.2356	0.3377	0.31	0.205	0.326	0.01986	16.97%	12.73%

Graphics





Freshwater Chronic Bioas

Larval Fish Survival

Client: [redacted]

Test Species: *P. promelas*

Sample ID: Warren Crossing

Start Date/Time: 4/16/2019 1745

Test No.: 1904-S 148

End Date/Time: 4/23/2019 1010

Concentration (100%)	Rep.	Rand #	Test Day / No. Organisms Alive								Percent Survival
			0	1	2	3	4	5	6	7	
Lab Control	a	7	10	9	9	9	9	9	9	9	90
	b	9	10	10	10	10	10	10	10	10	100
	c	3	10	10	10	10	10	10	10	10	100
	d	2	10	10	10	10	10	10	10	10	100
	e	8	10	10	10	10	10	10	10	10	100
	f	12	10	10	10	10	10	10	10	10	100
100	a	5	10	10	10	9	9	8	7	7	70
	b	1	10	10	10	10	10	10	10	10	100
	c	6	10	10	10	10	10	10	10	10	100
	d	10	10	10	10	10	10	10	10	10	100
	e	4	10	10	10	9	9	9	9	9	90
	f	11	10	10	7	6	6	6	6	6	60
	a										
	b										
	c										
	d										
	e										
	f										
	a										
	b										
	c										
	d										
	e										
	f										
	a										
	b										
	c										
	d										
	e										
	f										

Rand # QC: JBS

Initial Count QC'd by: RH

Initiated by: TN

Tech Initials	TN	DM	DM	JBS	TN	BO	DM	DM
Time	1745	1405	1625	1642	1235	1210	1525	1010

Time Fed (day):	0	1	2	3	4	5	6
morning:	—	0855	0940	0900	0840	0930	0915
midday:	—	1210	1200	1300	1300	1310	1255
evening:	1750	~~1630~~ @1740	1840	1710	1705	1615	1735

Comments: @KFP Q18 4/17/19

Drying Oven Info

Tare wt. Initials/Date: KL 4/23/19 0935

Date/Time in: 4/23/19 1050

Date/Time out: 4/24/19 1410

Temp (°C): 62.5

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Freshwater Chronic Bioassay **Larval Fish Weights**

Client: [redacted] **Test Species:** P. Promelas

Sample ID: Warren Crossing **Start Date/Time:** 4/16/19 1745

Test No.: 1904-S 148 **End Date/Time:** 4/23/2019 1010

Conc. (%)	Rep.	pan weight (mg)	pan + fish weight (mg)	organism weight (mg)
Lab Control	a	38.97	42.05	3.08
	b	41.71	45.15	3.44
	c	41.03	44.30	3.27
	d	39.92	43.14	3.22
	e	35.15	38.52	3.37
	f	38.63	41.96	3.33
	a	38.74	40.79	2.05
100%	b	39.24	42.44	3.20
	c	40.81	43.92	3.11
	d	39.69	42.95	3.26
	e	41.60	44.69	3.09
	f	35.39	37.88	2.49

Tech Initials:	KL	TR
Date/Time:	04/23/19 0935	4/24/2019 ~~1443~~ EG 1410

QR 5/2/19

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Freshwater Chronic Bioassay | **Water Quality Measurements**

Client: [redacted] Personal privacy Ex. (b)(6)

Test Species: *P. promelas*

Sample ID: Warren Crossing

Start Date/Time: 4/16/2019 1745

Test No: 1904-S 148

End Date/Time: 4/23/2019 1010

Concentration	Lab Control							
Day	0	1	2	3	4	5	6	7
Initial								
pH	8.03	8.18	8.10	8.06	8.09	8.09	8.13	
DO (mg/L)	7.7	8.3	8.3	7.6	7.6	7.8	8.1	
Cond. (µmhos/cm)	182	200	186	188	187	194	188	
Temp (°C)	24.3	24.1	24.0	24.0	24.4	24.6	24.2	
Final								
pH		7.77 ~~8.27~~	7.74	7.76	7.89	7.93	8.04	8.00
DO (mg/L)		7.7	7.2	7.4	6.6	6.9	7.2	6.9
Temp (°C)		24.8	24.8	24.7	24.8	24.3	24.2	24.8

Concentration	100%							
Day	0	1	2	3	4	5	6	7
Initial								
pH	7.76	7.83	7.81	7.77	7.79	7.82	7.85	
DO (mg/L)	8.8	9.0	8.9	8.6	9.0	8.6	8.9	
Cond. (µmhos/cm)	741	768	751	766	754	782	773	
Temp (°C)	24.2	24.0	24.2	24.9	24.2	24.3	24.2	
Final								
pH		7.96	7.74	7.75	7.85	7.84	7.89	7.86
DO (mg/L)		7.5	6.3	7.0	7.0	6.9	7.0	6.6
Temp (°C)		24.8	24.9	24.8	24.7	24.3	24.7	24.9

Concentration								
Day	0	1	2	3	4	5	6	7
Initial								
pH								
DO (mg/L)								
Cond. (µmhos/cm)								
Temp (°C)								
Final								
pH								
DO (mg/L)								
Temp (°C)								

		0	1	2	3	4	5	6	7
Analysts:	Initial:	BO	DM	DM	BO	TN	BO	TN	—
	Final:	—	DM	DM	BO	TN	BO	TN	BO
Dilutions made by:		JBS	RT	RT	RT	RT	ACS	ACS	—
Sample Used (A, B, C):		A	A	A	A	A	A	A	—

Comments: (A) Q18 4/17/19 EG OBO DM

Animal Source/Date Received: ABS/ 4/16/19

Animal Age at Initiation: 1 day

Animal Acclimation Qualifiers (circle all that apply): Q22 / Q23 / Q24 / none

Sample Log-in Numbers: A: 19-0472 B: — C: —

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Water Flea

CETIS Summary Report

Report Date: 29 Apr-19 12:50 (p 1 of 1)
Test Code: 1904-S149 | 03-9630-3318

Ceriodaphnia 3 Brood Survival & Reproduction Test — Nautilus Environmental (CA)

Batch ID:	20-8691-1496	**Test Type:**	Reproduction and Survival	**Analyst:**	
Start Date:	16 Apr-19 15:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Diluted Mineral Water (8:2)
Ending Date:	22 Apr-19 15:35	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	6d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	12-8353-5577	**Code:**	19-0472	**Client:**	Personal Privacy ex.
Sample Date:	15 Apr-19 06:20	**Material:**	(A) ~~Effluent Sample~~ Ambient water	**Project:**	
Receive Date:	15 Apr-19 10:30	**Source:**	Warren Crossing (KevinKelly)		
Sample Age:	33h (5.2 °C)	**Station:**	Warren Crossing		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
12-9828-6135	3 Brood Reproduction	100	>100	NA	4.0%	1	TST-Welch's t Test
05-4377-3344	3 Brood Survival	100	>100	NA	NA	1	Fisher Exact Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
12-9828-6135	3 Brood Reproduction	Control Resp	26.5	15 - NL	Yes	Passes Acceptability Criteria
05-4377-3344	3 Brood Survival	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
12-9828-6135	3 Brood Reproduction	PMSD	0.04002	0.13 - 0.47	Yes	Below Acceptability Criteria (B)

3 Brood Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	10	26.5	24.23	28.77	22	31	1.003	3.171	11.97%	0.0%
100		10	26.5	24.31	28.69	22	33	0.969	3.064	11.56%	0.0%

3 Brood Survival Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	10	1	1	1	1	1	0	0	0.0%	0.0%
100		10	1	1	1	1	1	0	0	0.0%	0.0%

3 Brood Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Control	26	25	31	31	26	30	26	23	25	22
100		24	24	28	33	25	26	28	22	27	28

3 Brood Survival Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

(A) EG Q18 5/2/19

(B) PMSD criteria does not apply to TST analysis

CETIS Analytical Report

Report Date: 29 Apr-19 12:50 (p 1 of 1)
Test Code: 1904-S149 | 03-9630-3318

Ceriodaphnia 3 Brood Survival & Reproduction Test — **Nautilus Environmental (CA)**

Analysis ID:	05-4377-3344	**Endpoint:**	3 Brood Survival	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Apr-19 10:37	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	Test Result
Untransformed		C > T	NA	NA	Passes 3 brood survival

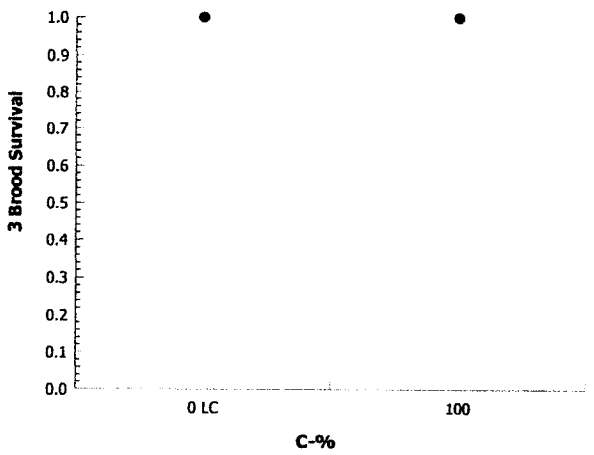
Fisher Exact Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Lab Control		100	1	1.0000	Exact	Non-Significant Effect

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Lab Control	10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

Graphics



CETIS Analytical Report

Report Date: 29 Apr-19 12:50 (p 1 of 1)
Test Code: 1904-S149 | 03-9630-3318

Ceriodaphnia 3 Brood Survival & Reproduction Test — **Nautilus Environmental (CA)**

Analysis ID:	12-9828-6135	**Endpoint:**	3 Brood Reproduction	**CETIS Version:**	CETISv1.8.7
Analyzed:	29 Apr-19 12:50	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	4.0%	Passes 3 brood reproduction

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:20%)
Lab Control		100*	5.401	0.8647	1.061	16	<0.0001	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1	0	1.0000	Non-Significant Effect
Error	175	9.722222	18			
Total	175		19			

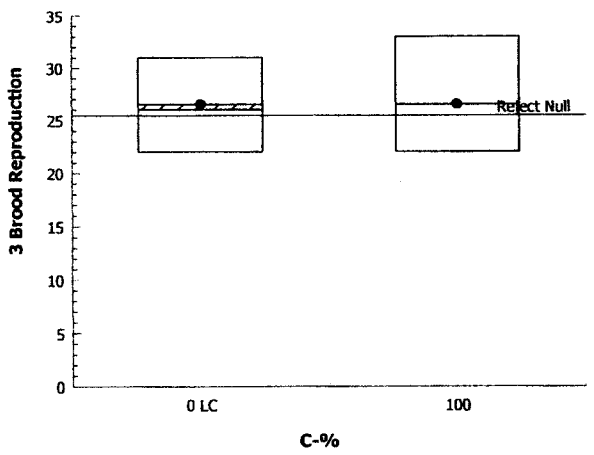
Distributional Tests

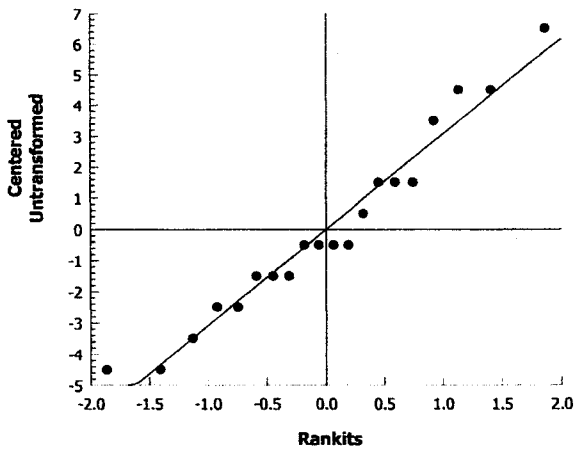
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.071	6.541	0.9203	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9539	0.866	0.4300	Normal Distribution

3 Brood Reproduction Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	10	26.5	24.23	28.77	26	22	31	1.003	11.97%	0.0%
100		10	26.5	24.31	28.69	26.5	22	33	0.969	11.56%	0.0%

Graphics





Freshwater Chronic Bioassay | **Daphnid Survival and Reproduction Datasheet**

Test Species: ***C. dubia***

Client/Sample ID: Personal privacy Ex. (b)(6) [redacted] Warren Crossing

Test Number: [redacted] (6)

Start Date/Time: 4/16/2019 1530

End Date/Time: 4/22/19 1535

Conc.	Rep	Rand #	Daily Reproduction/ Survival 1	2	3	4	5	6	7	8	Total	QC
LC	1	2	0	0	0	4	9	13			26	
	2	9	0	0	0	4	8	13			25	
	3	19	0	0	4	10	0	17			31	
	4	11	0	0	6	10	0	15			31	
	5	8	0	0	0	5	9	12			26	
	6	5	0	0	0	5	9	16			30	
	7	20	0	0	0	5	8	13			26	
	8	16	0	0	0	5	8	10			23	
	9	17	0	0	4	0	8	13			25	
	10	10	0	0	0	4	7	11			22	10
		Tech:	JBS	TN	JBS	DM	AS	AS				DM

Conc.	Rep	Rand #	Daily Reproduction/ Survival 1	2	3	4	5	6	7	8	Total	QC
100%	1	7	0	0	0	4	8	12			24	
	2	12	0	0	0	4	7	13			24	
	3	13	0	0	4	10	0	14			28	
	4	18	0	0	6	11	0	16			33	
	5	15	0	0	0	4	8	13			25	
	6	4	0	0	0	4	9	13			26	
	7	3	0	0	0	5	10	13			28	
	8	14	0	0	0	5	7	10			22	
	9	1	0	0	0	4	9	14			27	
	10	6	0	0	0	5	10	13			28	12

Conc.	Rep	Rand #	Daily Reproduction/ Survival 1	2	3	4	5	6	7	8	Total	QC
	1											
	2											
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											

Neonates for each replicate were blocked across concentrations at test initiation

Rep:	1	2	3	4	5	6	7	8	9	10
Board:	43 →									
Cup:	1	4	5	8	9	10	12	16	19	22

Rand # QC: KFP Verified By: RT Initiated By: BO QC'd By: KFP

Time Fed/Test Solution Renewed (day):
(0) 1530 (1) 1505 (2) 1430 (3) 1235 (4) 1505 (5) 1420 (6) — (7) —

Notes: d = dead; M = male; LIP = lost in progress; B = 4th brood (only the first 3 broods are included in total)
* = dead neonates observed, but only live neonate counts recorded

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Freshwater Chronic Bioassay **Water Quality Measurements**

Client: [redacted] **Test Species:** *C. dubia*

Sample ID: Warren Crossing **Start Date/Time:** 4/16/2019 1530

Test No: 1904-S 149 **End Date/Time:** 4/22/19 1535

Concentration	Lab Control							
Day	0	1	2	3	4	5	6	7
Initial								
pH	8.04	8.12	8.15	8.14	8.08	8.09	—	
DO (mg/L)	7.6	8.3	7.8	7.3	7.6	7.8	—	
Cond. (µmhos/cm)	183	193	195	187	185	194	—	
Temp (°C)	24.2	24.2	24.8	24.5	24.3	24.5	—	
Final								
pH		8.15	8.13	8.12	8.21	8.24	8.21	—
DO (mg/L)		6.8	8.1	7.9	7.7	8.0	7.9	—
Temp (°C)		24.7	24.9	24.1	24.2	24.5	24.9	—

Concentration	100%							
Day	0	1	2	3	4	5	6	7
Initial								
pH	7.83	7.82	7.91	7.83	7.81	7.95	—	
DO (mg/L)	8.3	9.0	8.3	8.3	9.0	8.1	—	
Cond. (µmhos/cm)	739	765	751	764	750	778	—	
Temp (°C)	24.4	24.5	24.9	24.6	24.4	24.4	—	
Final								
pH		8.07	8.06	8.05	8.22	8.21	8.17	—
DO (mg/L)		6.8	8.1	7.1	7.7	8.0	7.9	—
Temp (°C)		24.7	24.9	24.1	24.2	24.5	24.9	—

Concentration								
Day	0	1	2	3	4	5	6	7
Initial								
pH								
DO (mg/L)								
Cond. (µmhos/cm)								
Temp (°C)								
Final								
pH								
DO (mg/L)								
Temp (°C)								

	0	1	2	3	4	5	6	7
Analysts: Initial:	BO	RT	ACS	BO	TN	BO	—	—
Final:	—	JBS	ACS	JBS	TN	ACS	ACS	—
Dilutions made by:	JBS	RT	RT	RT	RT	ACS	—	—
Sample Used (A, B, C):	A	A	~~B~~ A	A	A	A	A	~~A~~ QIS AC 4/18

Comments: QIS RT 4/8/19

Animal Source/Date Received: Internal / N/A **Animal Age at Initiation:** <24 hours

Sample Log-in Numbers: A: 19-0472 B: — C: —

QC Check: EG 5/2/19 **Final Review:** KTP 5/8/19

Green Algae

CETIS Summary Report

Report Date: 29 Apr-19 12:52 (p 1 of 1)
Test Code: 1904-S150 | 10-7080-7098

Selenastrum Growth Test — Nautilus Environmental (CA)

Batch ID:	11-1126-8455	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	16 Apr-19 15:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	(C) ~~Not Applicable~~ Diluted Mineral Water 8:2
Ending Date:	20 Apr-19 12:50	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	93h	**Source:**	In-House Culture	**Age:**	5d

Sample ID:	17-2667-3443	**Code:**	19-0472	**Client:**	[redacted]
Sample Date:	15 Apr-19 06:20	**Material:**	(A) ~~Effluent Sample~~ Ambient Water	**Project:**	
Receive Date:	15 Apr-19 10:30	**Source:**	Warren Crossing (KevinKelly)		
Sample Age:	33h (5.2 °C)	**Station:**	Warren Crossing		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
07-1107-0710	Cell Density	100	>100	NA	1.05%	1	TST-Welch's t Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
07-1107-0710	Cell Density	Control CV	0.03406	NL - 0.2	Yes	Passes Acceptability Criteria
07-1107-0710	Cell Density	Control Resp	2.87E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
07-1107-0710	Cell Density	PMSD	0.01046	0.091 - 0.29	Yes	Below Acceptability Criteria (B)

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	2.871E+6	2.715E+6	3.026E+6	2.743E+6	2.977E+6	4.889E+4	9.778E+4	3.41%	0.0%
100		4	3.068E+6	3.023E+6	3.112E+6	3.049E+6	3.109E+6	1.403E+4	2.805E+4	0.91%	-6.85%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Control	2.977E+6	2.902E+6	2.743E+6	2.861E+6
100		3.060E+6	3.052E+6	3.049E+6	3.109E+6

(A) EG QIP 5/2/19
(B) PMSD criteria does not apply to TST analysis
(C) KTP QIP 5/8/19

CETIS Analytical Report

Report Date: 29 Apr-19 12:52 (p 1 of 1)
Test Code: 1904-S150 | 10-7080-7098

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Analysis ID:	07-1107-0710	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	29 Apr-19 12:52	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	1.05%	Passes cell density

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:25%)
Lab Control		100*	23.29	0.7649	30030	3	<0.0001	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	77421130000	77421130000	1	14.96	0.0083	Significant Effect
Error	31041750000	5173625000	6			
Total	1.084629E+11		7			

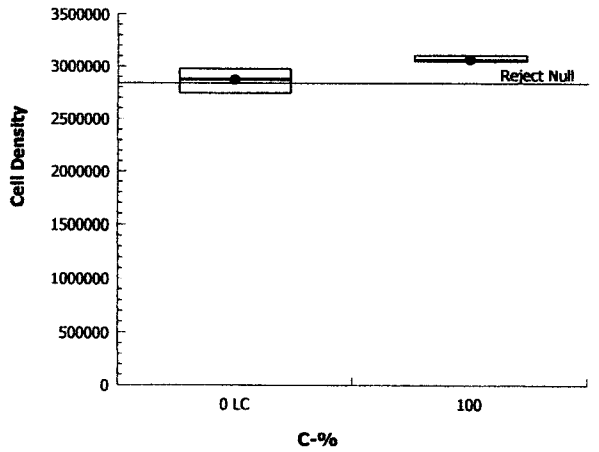
Distributional Tests

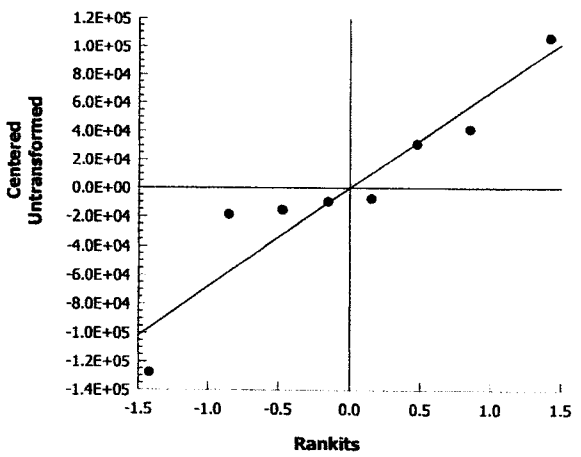
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	12.15	47.47	0.0696	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9187	0.6451	0.4197	Normal Distribution

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	4	2.871E+6	2.715E+6	3.026E+6	2882000	2.743E+6	2.977E+6	4.889E+4	3.41%	0.0%
100		4	3.068E+6	3.023E+6	3.112E+6	3056000	3.049E+6	3.109E+6	1.403E+4	0.91%	-6.85%

Graphics





Fluorometric & Microscopic Determination of Cell Density
Turner Fluorometer Model TD-700

Test Species: *S. capricornutum*

Client : Personal Privacy ex. (b)(6)

Start Date/Time: 4/16/2019 1545

Sample ID: Warren Crossing

End Date/Time: 4/20/2019 1250

Test No: 1904-S 150

Analyst: BO

Random Number	Cell Density (fluorometric) (cells/ml *10^5)	Dilution	Cell Density (microscopic) (cells/ml *10^4)
Cal Check 1 (DI, Solid)	0.00, 1.42		
1	29.77		
2	31.09		
3	30.60		
4	27.43		
5	28.61		
6	29.02		
7	30.52		
8	30.49		
Cal Check 2 (DI, Solid)			
100% filtered blank	0.00		
~~100% unfiltered blank~~ @			

Comments: @Q18 BO 4/16/19

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

CETIS Test Data Worksheet

Report Date: 15 Apr-19 11:01 (p 1 of 1)
Test Code: 1904-5150 10-7080-7098/3FD3383A

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Start Date: 16 Apr-19
End Date: 20 Apr-19
Sample Date: 15 Apr-19

Species: Selenastrum capricornutum
Protocol: EPA/821/R-02-013 (2002)
Material: (A) ~~Effluent Sample~~ Ambient Water

Sample Code: 19- 0472
Sample Source: Warren Crossing
Sample Station: Warren Crossing

C-%	Code	Rep	Pos	Cell Density	Absorbance	Biomass	Chlorophyll a	Notes
0	LC	1	1					
0	LC	2	6					
0	LC	3	4					
0	LC	4	5					
100		1	3					
100		2	7					
100		3	8					
100		4	2					

QC= TN

(A) EG 918 5/2/19

Freshwater Chronic Bioassay

Water Quality Measurements
Algal Growth Inhibition

Client : Personal Privacy ex. (b)(6)

Test Species: *S. capricornutum*

Sample ID: Warren Crossing

Start Date/Time: 4/16/2019 1545

Sample Log No.: 19-0472

End Date/Time: 4/20/2019 1250

Dilutions made by: TN

Test No: 1904-S 150

Concentration (%)	Initial Readings D.O. (mg/L)	Initial Readings Conductivity (umhos-cm)	Initial Readings Alkalinity (mg/L)	Initial Readings Hardness (mg/L)	Final Readings D.O. (mg/L)	Final Readings Conductivity (umhos-cm)
Lab Control	6.8	264	102	116	8.8	149
100	6.9	812	95	103	9.0	708

		0 Hour	24 Hour	48 Hour	72 Hour	96 Hour
pH/Temperature (°C):	LC	8.20/24.6	8.21/24.7	8.9/24.8	9.41/25.0	9.96/24.3
pH/Temperature (°C):	100	8.03/24.8	8.26/25.2	9.57/25.4	9.22/25.3	9.58/24.9
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
	Technician:	TN	TN	ATS	BO	BO

Comments:

QC Check: EG 5/2/19

Final Review: KTP 5/8/19

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Freshwater Chronic Bioassay | **Algal Growth Inhibition Worksheet**

Client/Sample ID : [redacted] Personal Privacy ex. (b)(6)

Test Species: *S. capricornutum*

Test No: 1904-S150

Start Date/Time: 4/16/2019 1545

Analyst: TN

End Date/Time: 4/20/2019 1250

Date Stock Culture Started: 4/11/19

Culture Age: 5 DAYS

Culture subsample inspected for algal cell health? TN (initials) bacteria/invasive algal species present? Y / N

Stock Cell Density Measurements:

36.59
36.45
37.16
37.38
37.50

Mean: 37.02

(mean no. * 100,000)/(500,000) = x (dilution factor): 7.4

Prepare inoculum according to the dilution factor. This yields a solution with the desired cell density of 500,000 cells/ml.

dil. factor 7.4

-1.0 part Sele stock = 15 mL

6.4 part(s) NEW = 96 mL

Inoculate 1 ml into 3 initial count flasks containing 50 ml of NEW, stir and count on the hemacytometer. Flasks should contain a final density of 10,000 cells/ml ± 10%.

Inoculum Cell Density Confirmation Counts:

1
1
1

Mean: 1

Location in Environmental Chamber (All replicates in each test must be on the same shelf; do not split up tests among shelves):

Shelf Number	Measured Light Intensity Range (must be between 360 and 440 ft-c)	Random Number Range
1 (A)	369-435	1-8
2	363-421	9-32
3		
4	363-418	33-60
5		
6		

Are lights on 24 hour cycle? Y / N

Comments: (A) Test moved to shelf #5 @ 24 hrs ; Light Intensity range = 377-429

QC Check: EG 5/2/19

Final Review: KFP 5/8/19

Appendix B

Sample Receipt Information

Nautilus Environmental
4340 Vandever Avenue
San Diego, CA 92120

Client: Personal Privacy ex. (b)(6)
Sample ID: Warren Crossing
Test ID No(s).: 1904-5148 to 5150

Sample Check-In Information

Sample Description: Light yellow, clear, odorless, no debris

Sample (A, B, C):	A			
Log-in No. (19-xxxx):	0472			
Sample Collection Date & Time:	4/15/19 0620			
Sample Receipt Date & Time:	4/15/19 1030			
Number of Containers & Container Type:	1.4L cub, 1.1x cubz			
Approx. Total Volume Received (L):	~12L			
Check-in Temperature (°C)	5.2			
Temperature OK? [1]	(Y) N	Y N	Y N	Y N
DO (mg/L)	10.7			
pH (units)	7.79			
Conductivity (µS/cm)	747			
Salinity (ppt)	0.4			
Alkalinity (mg/L) [2]	70			
Hardness (mg/L) [2,3]	138			
Total Chlorine (mg/L)	0.02			
Technician Initials	ACS			

COC Complete (Y/N)?
A Y B___ C___

Filtration? (Y) N (0.45 um selenastrum test only)
Pore Size: 60 um
(Organisms) or Debris

Salinity Adjustment? Y (N)
Test: Source: Target ppt:
Test: Source: Target ppt:
Test: Source: Target ppt:

pH Adjustment? Y (N)

	A	B	C
Initial pH:			
Amount of HCl added:			
Final pH:			

Cl_2 Adjustment? Y (N)

	A	B	C
Initial Free Cl_2:			
STS added:			
Final Free Cl_2:			

Sample Aeration? Y (N)

	A	B	C
Initial D.O.			
Duration & Rate			
Final D.O.			

Subsamples for Additional Chemistry Required? Y (N)
NH3 Other ___
Tech Initials A___ B___ C___

QC Check: EG 5/2/19
Final Review: KMP 5/8/19

Test Performed: Ceriodaphnia, Fathead Minnow, and Selenastrum
Control/Dilution Water: (8:2) Lab SW / Lab ART Other: ___
Alkalinity: 92 Hardness or Salinity: 91
Additional Control? Y (N) = ___ Alkalinity: ___ Hardness or Salinity: ___

Test Performed: ___
Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: ___
Alkalinity: ___ Hardness or Salinity: ___
Additional Control? Y N = ___ Alkalinity: ___ Hardness or Salinity: ___

Test Performed: ___
Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: ___
Alkalinity: ___ Hardness or Salinity: ___
Additional Control? Y N = ___ Alkalinity: ___ Hardness or Salinity: ___

Notes: [1] Temperature of sample should be 0-6°C, if received more than 24 hours past collection time.
[2] mg/L as CaCO3, [3] Measured for freshwater samples only, NA = Not Applicable

Additional Comments: ___

Appendix C

Chain-of-Custody Forms

Enthalpy Analytical - Environmental Toxicology

4340 Vandever Avenue
San Diego, CA 92120
Phone 858.587.7333
infoSD@enthalpy.com

Chain of Custody

Date_____ Page___ of ___

Sample Collection By:

Report to:

Company: [redacted]
Address: [redacted]
City/State/Zip: [redacted]
Contact: [redacted]
Phone: [redacted]
Email: [redacted]

Invoice To: Same as Report to ☒

Company
Address
City/State/Zip
Contact
Phone
Email

ANALYSES REQUIRED

Nautilus Matrix Codes:
G = Grab
C = Composite
FW = Freshwater
SW = Seawater
Sed = Sediment
STRM = Stormwater
GW = Groundwater
WW = Wastewater
O = Other (specify)

	SAMPLE ID	SAMPLE Date	SAMPLE Time	SAMPLE Type (G or C)	MATRIX CODE (FW, SW, Sed, STRM, GW, WW, O)	Container Type	Container Qty	COMMENTS	EPA-821-R-02-013 Fathead minnow 1000.0	EPA-821-R-02-013 Daphnid 1002.0	EPA-821-R-02-013 Green algae 1003.0				Receipt Temperature (°C)
1	Warren Crossing	4/15/2019	6:20am	G	FW				X	X	X				5.2
2	33.0029 LAT														
3	-117.0058 LONG														
4															
5															
6															
7															
8															
9															
10															

PROJECT INFORMATION		SAMPLE RECEIPT	
Project Name:		Total No. of Containers	2
PO No.:		Received Good Condition?	Y
Shipped Via:		Matches Test Schedule?	Y

SPECIAL INSTRUCTIONS/COMMENTS:

1) RELINQUISHED BY (CLIENT)	2) RECEIVED BY (COURIER)
(Signature) (Time) 10:30 am	(Signature) (Time)
(Printed Name) (Date) 4/15/2019	(Printed Name) (Date)
[redacted]	(Company)
3) RELINQUISHED BY (COURIER)	**4) RECEIVED BY (LABORATORY)**
(Signature) (Time)	(Signature) (Time) 1030
(Printed Name) (Date)	(Printed Name) (Date) ERIC GREEN 4/15/19
(Company)	(Company) Enthalpy (Log-in #s) 19-0972

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.
Shaded areas are for lab use only
Report turn-around-time varies depending on length of test; please inquire with your project manager.

http://enthalpy.com/environmental-toxicology-2/

Appendix D

List of Qualifier Codes

Nautilus Environmental

Glossary of Qualifier Codes:

Q1 - Temperatures out of recommended range; corrective action taken and recorded in Test Temperature Correction Log

Q2 - Temperatures out of recommended range; no action taken, test terminated same day

Q3 - Sample aerated prior to initiation or renewal due to dissolved oxygen (D.O.) levels below 6.0 mg/L

Q4 - Test aerated; D.O. levels dropped below 4.0 mg/L

Q5 - Test initiated with aeration due to an anticipated drop in D.O.

Q6 - Airline obstructed or fell out of replicate and replaced; drop in D.O. occurred

Q7 - Salinity out of recommended range

Q8 - Spilled test chamber/ Unable to recover test organism(s)

Q9 - Inadequate sample volume remaining, 50% renewal performed

Q10 - Inadequate sample volume remaining, no renewal performed

Q11 - Sample out of holding time; refer to QA section of report

Q12 - Replicate(s) not initiated; excluded from data analysis

Q13 - Survival counts not recorded due to poor visibility or heavy debris

Q14 - D.O. percent saturation was checked and was ≤ 110%

Q15 - Did not meet minimum test acceptability criteria. Refer to QA section of report.

Q16 - Percent minimum significant difference (PMSD) was below the lower bound limit for acceptability. This indicates that statistics may be over-sensitive in detecting a difference from the control due to low variability in the data set.

Q17 - Percent minimum significant difference (PMSD) was above the upper bound limit for acceptability. This indicates that statistics may be under-sensitive in detecting a difference from the control due to high variability in the data set.

Q18 - Incorrect Entry

Q19 - Illegible Entry

Q20 - Miscalculation

Q21 - Other (provide reason in comments section)

Q22 - Greater than 10% mortality observed upon receipt and/or in holding prior to test initiation. Organisms acclimated to test conditions at Nautilus and ultimately deemed fit to use for testing.

Q23 - Test organisms received at a temperature greater than 3°C outside the recommended test temperature range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

Q24 - Test organisms received at salinity greater than 3 ppt outside of the recommended test salinity range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

Appendix E

Reference Toxicant Test Control Charts

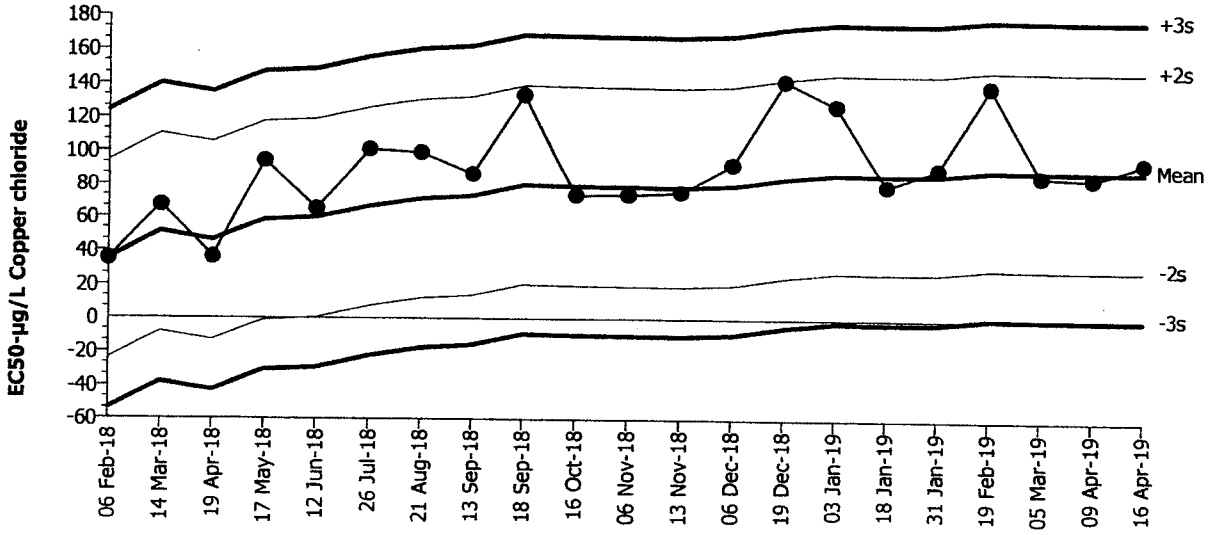
CETIS QC Plot

Report Date: 25 Apr-19 09:32 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Nautilus Environmental (CA)**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas (Fathead Minn	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF

Fathead Minnow 7-d Larval Survival and Growth Test



Mean:	89.42	**Count:**	20	**-2s Warning Limit:**	30.08	**-3s Action Limit:**	0.4115
Sigma:	29.67	**CV:**	33.20%	**+2s Warning Limit:**	148.8	**+3s Action Limit:**	178.4

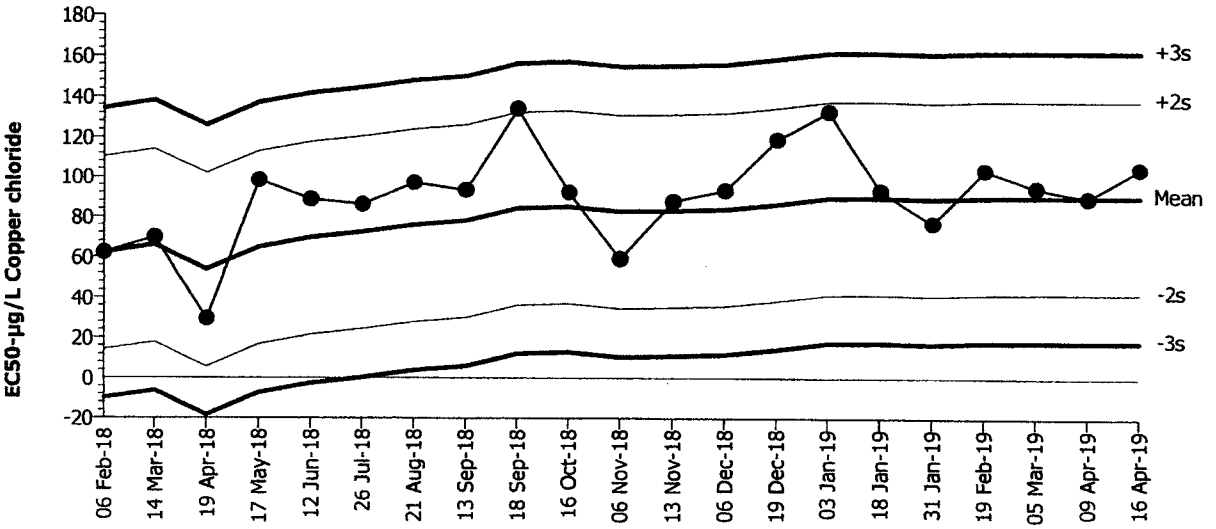
Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Feb	6	17:45	35.28	-54.14	-1.825			08-6283-7647	03-6821-1068
2		Mar	14	15:25	67.16	-22.26	-0.7503			05-4217-4948	16-2122-5614
3		Apr	19	14:35	36.37	-53.05	-1.788			05-4837-7692	17-8728-1568
4		May	17	16:40	94.46	5.041	0.1699			02-7970-5374	11-2325-4803
5		Jun	12	16:30	65.2	-24.22	-0.8164			02-9436-9278	19-5660-6658
6		Jul	26	16:50	101.3	11.9	0.4012			18-2782-6717	17-2133-2867
7		Aug	21	15:05	99.33	9.91	0.334			02-6020-9146	00-5020-4864
8		Sep	13	14:20	86.55	-2.87	-0.09673			14-1246-9603	02-7833-3939
9			18	14:57	133.7	44.31	1.493			10-4843-5294	15-9455-1259
10		Oct	16	16:52	73.74	-15.68	-0.5285			17-7213-8609	02-0383-1344
11		Nov	6	13:45	73.96	-15.46	-0.5212			20-3389-3740	04-9366-9422
12			13	17:20	75.6	-13.82	-0.466			10-5062-6384	19-3869-2967
13		Dec	6	16:30	92.64	3.22	0.1085			09-9383-0620	02-8247-0517
14			19	16:30	142.4	53.02	1.787			07-7776-0749	13-6365-0374
15	2019	Jan	3	16:30	128	38.57	1.3			17-2990-9112	18-8366-8357
16			18	17:10	79.89	-9.53	-0.3212			00-8921-2933	11-8106-6309
17			31	14:40	90.53	1.108	0.03735			07-2780-7470	04-1747-5159
18		Feb	19	15:00	140	50.56	1.704			18-0373-2684	05-7951-6644
19		Mar	5	16:15	86.71	-2.709	-0.09131			15-9072-6034	03-5487-6884
20		Apr	9	17:05	85.56	-3.864	-0.1302			10-2728-8420	19-1394-6964
21			16	17:45	95.24	5.824	0.1963			05-6534-2826	07-8844-9182

Fathead Minnow 7-d Larval Survival and Growth Test **Nautilus Environmental (CA)**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas (Fathead Minn	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF

Fathead Minnow 7-d Larval Survival and Growth Test



Mean:	90.07	**Count:**	20	**-2s Warning Limit:**	41.97	**-3s Action Limit:**	17.92
Sigma:	24.05	**CV:**	26.70%	**+2s Warning Limit:**	138.2	**+3s Action Limit:**	162.2

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Feb	6	17:45	62.11	-27.96	-1.162			08-6283-7647	14-3971-2398
2		Mar	14	15:25	69.79	-20.28	-0.8433			05-4217-4948	11-9321-5864
3		Apr	19	14:35	29.34	-60.73	-2.525	(-)		05-4837-7692	03-4516-1694
4		May	17	16:40	98.27	8.198	0.3409			02-7970-5374	02-1561-1432
5		Jun	12	16:30	88.66	-1.406	-0.05846			02-9436-9278	21-0010-8589
6		Jul	26	16:50	86.16	-3.91	-0.1626			18-2782-6717	12-8257-7562
7		Aug	21	15:05	97.04	6.965	0.2896			02-6020-9146	04-4487-9181
8		Sep	13	14:20	93.33	3.26	0.1355			14-1246-9603	04-1149-2304
9			18	14:57	134.1	44.03	1.831			10-4843-5294	20-6082-7888
10		Oct	16	16:52	92.24	2.168	0.09016			17-7213-8609	08-9317-4058
11		Nov	6	13:45	59.22	-30.85	-1.283			20-3389-3740	18-0876-2328
12			13	17:20	87.8	-2.269	-0.09436			10-5062-6384	17-1629-0880
13		Dec	6	16:30	93.18	3.107	0.1292			09-9383-0620	07-0510-0908
14			19	16:30	119.1	28.99	1.205			07-7776-0749	03-4007-3954
15	2019	Jan	3	16:30	132.8	42.78	1.779			17-2990-9112	14-5078-4873
16			18	17:10	93.17	3.096	0.1287			00-8921-2933	03-4268-4100
17			31	14:40	76.99	-13.08	-0.5437			07-2780-7470	15-1787-1582
18		Feb	19	15:00	103.6	13.57	0.5643			18-0373-2684	06-4100-7867
19		Mar	5	16:15	94.67	4.602	0.1913			15-9072-6034	04-0331-0390
20		Apr	9	17:05	89.71	-0.36	-0.01497			10-2728-8420	00-2698-8707
21			16	17:45	104.5	14.45	0.6008			05-6534-2826	04-2714-9875

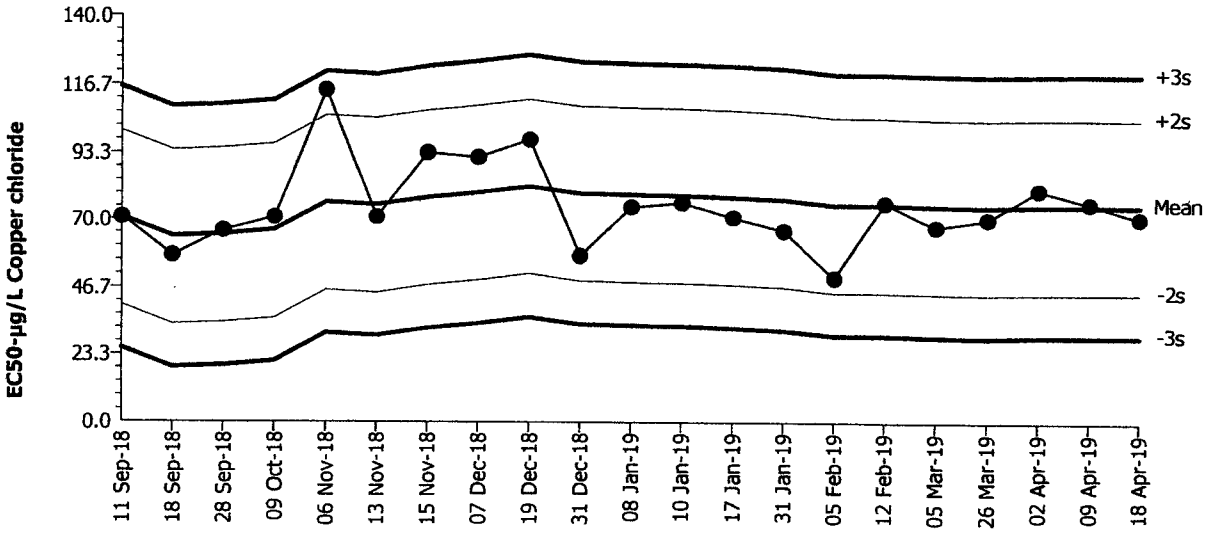
CETIS QC Plot

Report Date: 25 Apr-19 08:50 (1 of 1)

Ceriodaphnia 3 Brood Survival & Reproduction Test — **Nautilus Environmental (CA)**

Test Type:	Reproduction and Survival	**Organism:**	Ceriodaphnia dubia (Water Flea)	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	3 Brood Survival	**Source:**	Reference Toxicant-REF

Ceriodaphnia 3 Brood Survival & Reproduction Test



Mean:	74.85	**Count:**	20	**-2s Warning Limit:**	44.69	**-3s Action Limit:**	29.61
Sigma:	15.08	**CV:**	20.10%	**+2s Warning Limit:**	105	**+3s Action Limit:**	120.1

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Sep	11	15:50	70.71	-4.139	-0.2745			15-0367-2566	04-4849-9774
2			18	14:40	57.43	-17.42	-1.155			19-9863-8157	11-0510-4279
3			28	15:15	65.98	-8.875	-0.5885			04-7595-3378	13-9417-8428
4		Oct	9	14:15	70.71	-4.139	-0.2745			14-3960-6876	07-4862-8474
5		Nov	6	15:00	114.9	40.02	2.654	(+)		04-1435-4950	20-1157-9165
6			13	16:05	70.71	-4.139	-0.2745			01-9813-7007	16-5530-3166
7			15	16:00	93.3	18.45	1.224			06-9433-7486	14-5635-2982
8		Dec	7	15:50	91.8	16.95	1.124			02-4606-2391	15-7956-0771
9			19	16:10	97.72	22.87	1.516			17-1691-3389	12-1705-3793
10			31	14:30	57.29	-17.56	-1.164			09-4530-8891	00-0126-9874
11	2019	Jan	8	16:05	74.27	-0.5809	-0.03852			06-8975-0446	20-4573-9233
12			10	15:50	75.79	0.9358	0.06206			05-0771-3229	05-3358-2818
13			17	15:30	70.71	-4.139	-0.2745			06-4722-1276	08-9812-7021
14			31	14:35	65.98	-8.875	-0.5885			05-3047-3423	17-4811-1679
15		Feb	5	15:10	50	-24.85	-1.648			06-9817-6175	05-5225-6584
16			12	15:45	75.79	0.9358	0.06206			11-0934-5871	18-9425-5077
17		Mar	5	16:00	67.41	-7.44	-0.4934			00-4760-8053	10-0473-4310
18			26	15:25	70.17	-4.682	-0.3105			11-7131-3137	07-2142-6918
19		Apr	2	14:55	80.6	5.752	0.3814			09-0601-3294	06-8821-4549
20			9	15:30	75.79	0.9358	0.06206			12-6411-0002	09-7986-7086
21			18	15:20	70.71	-4.139	-0.2745			02-4907-7419	11-6741-5526

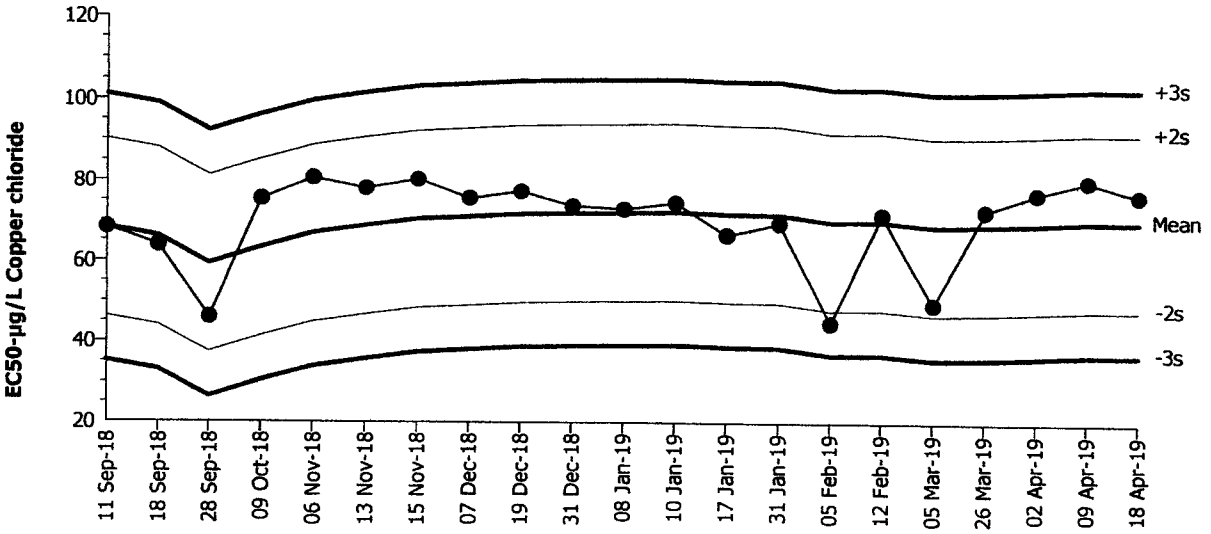
CETIS QC Plot

Report Date: 25 Apr-19 08:50 (1 of 1)

Ceriodaphnia 3 Brood Survival & Reproduction Test — **Nautilus Environmental (CA)**

Test Type:	Reproduction and Survival	**Organism:**	Ceriodaphnia dubia (Water Flea)	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	3 Brood Reproduction	**Source:**	Reference Toxicant-REF

Ceriodaphnia 3 Brood Survival & Reproduction Test



Mean:	69.83	**Count:**	20	**-2s Warning Limit:**	47.89	**-3s Action Limit:**	36.92
Sigma:	10.97	**CV:**	15.70%	**+2s Warning Limit:**	91.77	**+3s Action Limit:**	102.7

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Sep	11	15:50	68.2	-1.626	-0.1482			15-0367-2566	19-4273-0105
2			18	14:40	63.82	-6.014	-0.5482			19-9863-8157	15-4410-4735
3			28	15:15	45.95	-23.88	-2.177	(-)		04-7595-3378	02-3227-8076
4		Oct	9	14:15	75.31	5.477	0.4992			14-3960-6876	01-6358-0109
5		Nov	6	15:00	80.59	10.76	0.9805			04-1435-4950	17-6241-6173
6			13	16:05	77.95	8.117	0.7399			01-9813-7007	11-4312-6131
7			15	16:00	80.2	10.37	0.9451			06-9433-7486	14-3956-4592
8		Dec	7	15:50	75.53	5.698	0.5194			02-4606-2391	16-1901-9183
9			19	16:10	77.23	7.4	0.6745			17-1691-3389	01-3369-1019
10			31	14:30	73.61	3.781	0.3447			09-4530-8891	08-7254-3311
11	2019	Jan	8	16:05	72.83	2.996	0.2731			06-8975-0446	05-5312-7641
12			10	15:50	74.42	4.593	0.4187			05-0771-3229	11-1107-9897
13			17	15:30	66.45	-3.38	-0.3081			06-4722-1276	12-5397-9001
14			31	14:35	69.38	-0.455	-0.04148			05-3047-3423	02-9241-5110
15		Feb	5	15:10	44.7	-25.13	-2.291	(-)		06-9817-6175	12-7794-2283
16			12	15:45	71.49	1.658	0.1511			11-0934-5871	08-3884-3030
17		Mar	5	16:00	49.42	-20.41	-1.861			00-4760-8053	06-6091-9301
18			26	15:25	72.6	2.773	0.2528			11-7131-3137	11-2873-1075
19		Apr	2	14:55	76.9	7.069	0.6444			09-0601-3294	14-0913-0963
20			9	15:30	80.12	10.29	0.9381			12-6411-0002	15-0847-0797
21			18	15:20	76.57	6.738	0.6142			02-4907-7419	14-7537-4728

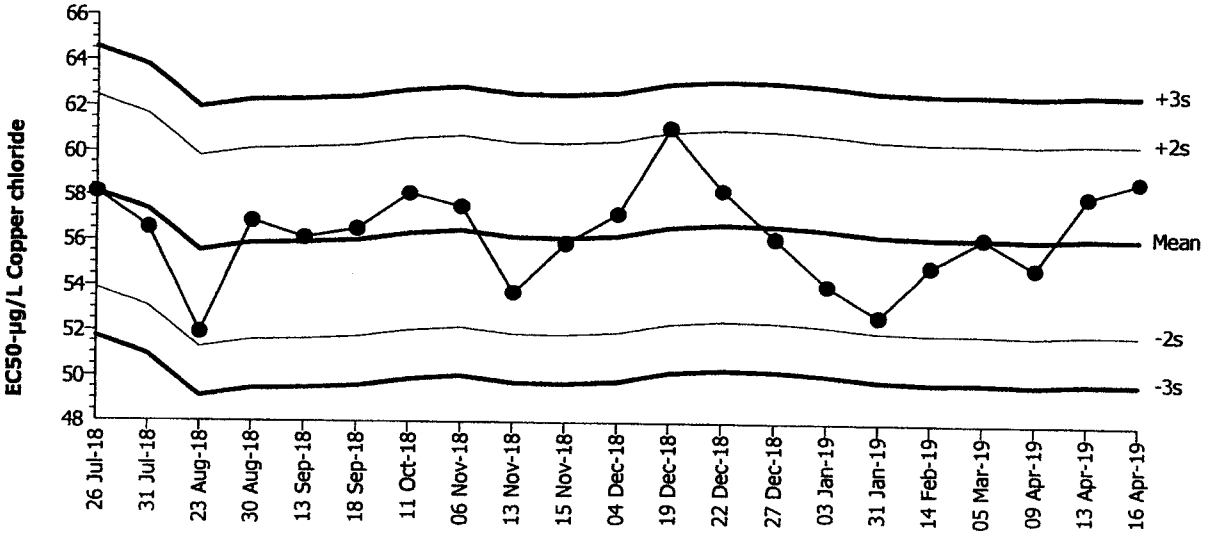
CETIS QC Plot

Report Date: 24 Apr-19 08:21 (1 of 1)

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Test Type: Cell Growth
Protocol: EPA/821/R-02-013 (2002)
Organism: Selenastrum capricornutum (Green
Endpoint: Cell Density
Material: Copper chloride
Source: Reference Toxicant-REF

Selenastrum Growth Test



Mean:	56.27	**Count:**	20	**-2s Warning Limit:**	51.99	**-3s Action Limit:**	49.85
Sigma:	2.14	**CV:**	3.80%	**+2s Warning Limit:**	60.55	**+3s Action Limit:**	62.69

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Jul	26	15:30	58.15	1.884	0.8802			05-2543-8228	18-3419-2496
2			31	15:50	56.52	0.2526	0.118			16-2858-1265	19-6901-3980
3		Aug	23	15:30	51.93	-4.344	-2.03	(-)		21-2359-0680	07-4325-3393
4			30	16:05	56.86	0.5889	0.2752			19-9381-5869	12-3846-5486
5		Sep	13	16:30	56.13	-0.1435	-0.06706			00-3053-3379	03-3737-5400
6			18	15:15	56.51	0.2405	0.1124			05-1115-3587	04-3271-6668
7		Oct	11	16:10	58.11	1.843	0.861			03-3415-8156	05-2201-8982
8		Nov	6	15:30	57.52	1.252	0.5852			03-7553-2553	03-4182-4667
9			13	15:00	53.74	-2.53	-1.182			03-9768-1203	07-8008-9774
10			15	16:40	55.92	-0.3524	-0.1647			06-8931-3427	12-3853-4475
11		Dec	4	14:10	57.22	0.9521	0.4449			00-0483-6227	13-5549-1501
12			19	17:00	61.13	4.857	2.27	(+)		08-3870-7478	16-8390-9845
13			22	14:15	58.32	2.046	0.9559			04-7696-6642	17-5905-4894
14			27	14:50	56.17	-0.1045	-0.04886			16-5565-1289	00-1111-8555
15	2019	Jan	3	15:45	54.11	-2.161	-1.01			04-5724-4293	11-1515-1192
16			31	14:20	52.75	-3.521	-1.645			12-8664-4980	00-5339-0124
17		Feb	14	14:30	55	-1.273	-0.5948			05-3618-7587	06-0786-7087
18		Mar	5	15:20	56.25	-0.01589	-0.00743			01-3543-5496	01-5642-3620
19		Apr	9	15:30	54.95	-1.321	-0.6173			06-9176-4833	02-6283-1789
20			13	14:55	58.14	1.871	0.8743			11-9772-1410	16-5961-3657
21			16	15:45	58.88	2.606	1.218			02-9435-9993	02-5249-5166

EnviroMatrix Analytical, Inc.

16 May 2019

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

EMA Log #: 19E0146

Project Name: Testing
Project Desc./#: Personal Privacy ex. (b)(6) May 5, 2019

Enclosed are the results of analyses for samples received by the laboratory on 05/05/19 12:20. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N-Kelly	19E0146-01	Grnd-Water	05/05/19 10:20	05/05/19 12:20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N-Kelly (19E0146-01) Grnd-Water	**Sampled: 05/05/19 10:20**	**Received: 05/05/19 12:20**							
Cadmium	ND	0.001	mg/l	1	9051366	05/13/19	05/14/19	EPA 200.8	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.615**	0.050	"	"	"	"	"	"	
Manganese	**0.007**	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Testing

EMA Log #: 19E0146

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N-Kelly (19E0146-01) Grnd-Water	**Sampled: 05/05/19 10:20**	**Received: 05/05/19 12:20**							
Cadmium	ND	0.001	mg/l	1	9051438	05/14/19	05/14/19	EPA 200.8	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.466**	0.050	"	"	"	"	"	"	
Manganese	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N-Kelly (19E0146-01) Grnd-Water Sampled: 05/05/19 10:20 Received: 05/05/19 12:20									
Ammonia as N	ND	0.10	mg/l	1	9051030	05/13/19	05/13/19	EPA 350.1	
Color	**46**	1	Color Units	"	9050746	05/06/19	05/06/19	SM2120 B	
Specific Conductance (EC)	**442**	1.00	umhos/cm	"	9050661	05/06/19	05/06/19	SM2510 B	
Hardness (Total)	**46**	10	mg CaCO3/L	"	9050914	05/09/19	05/09/19	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	"	9050748	05/06/19	05/06/19	SM5540 C	
Nitrate/Nitrite as N	**0.16**	0.05	"	"	9050818	05/08/19	05/08/19	EPA 353.2	
Total Kjeldahl Nitrogen	ND	0.5	"	"	9051028	05/13/19	05/14/19	EPA 351.2	
Dissolved Oxygen	**8.09**	0.10	"	"	9051538	05/05/19	05/05/19	SM4500-O G	HT-15
pH at 25 deg C	**7.63**	0.10	pH Units	"	9050745	05/06/19	05/06/19	SM4500-H+ B	HT-15
Orthophosphate as P	**0.09**	0.05	mg/l	"	9050749	05/07/19	05/07/19	SM4500 P E	
Phosphorus, Total	**0.18**	0.05	"	"	9051017	05/10/19	05/10/19	SM4500 P B, E	
Total Dissolved Solids	**298**	20.0	"	"	9050739	05/06/19	05/07/19	SM2540 C	
Total Suspended Solids	ND	20.0	"	"	9050919	05/08/19	05/09/19	SM2540 D	
Turbidity	**5.50**	0.05	NTU	"	9050747	05/06/19	05/06/19	SM2130 B	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Microbiological Parameters by Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N-Kelly (19E0146-01) Grnd-Water	**Sampled: 05/05/19 10:20**	**Received: 05/05/19 12:20**							
Total Coliforms	**300**	2	MPN/100 ml	1	9050655	05/05/19	05/09/19	SM 9221 B, E	
Fecal Coliforms	**4**	2	"	"	"	"	05/08/19	"	
Enterococcus	**23**	2	"	"	9050656	"	05/09/19	SM 9230 A, B	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051366										
Blank (9051366-BLK1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Manganese	ND	0.005	mg/l							
Cadmium	ND	0.001	"							
Zinc	ND	0.020	"							
Lead	ND	0.005	"							
Copper	ND	0.010	"							
Iron	ND	0.050	"							
LCS (9051366-BS1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Zinc	0.111	0.020	mg/l	0.100		111	85-115			
Lead	0.102	0.005	"	0.100		102	85-115			
Manganese	0.109	0.005	"	0.100		109	85-115			
Iron	0.105	0.050	"	0.100		105	85-115			
Copper	0.105	0.010	"	0.100		105	85-115			
Cadmium	0.108	0.001	"	0.100		108	85-115			
LCS Dup (9051366-BSD1)				Prepared: 05/13/19 Analyzed: 05/15/19						
Copper	0.107	0.010	mg/l	0.100		107	85-115	2	20	
Iron	0.108	0.050	"	0.100		108	85-115	3	20	
Zinc	0.111	0.020	"	0.100		111	85-115	0.2	20	
Lead	0.104	0.005	"	0.100		104	85-115	2	20	
Manganese	0.110	0.005	"	0.100		110	85-115	0.2	20	
Cadmium	0.109	0.001	"	0.100		109	85-115	2	20	
Duplicate (9051366-DUP1)		**Source: 19D1064-01**		Prepared: 05/13/19 Analyzed: 05/14/19						
Zinc	0.026	0.020	mg/l		0.036			33	20	QR-02
Iron	0.463	0.050	"		0.452			2	20	
Manganese	0.027	0.005	"		0.031			14	20	
Copper	0.005	0.010	"		0.004			12	20	
Lead	0.002	0.005	"		0.002			8	20	
Cadmium	0.0002	0.001	"		0.0002				20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051366										
Matrix Spike (9051366-MS1)		**Source: 19D1064-01**		Prepared: 05/13/19	Analyzed: 05/14/19					
Manganese	0.130	0.005	mg/l	0.100	0.031	99	70-130			
Zinc	0.125	0.020	"	0.100	0.036	89	70-130			
Lead	0.108	0.005	"	0.100	0.002	106	70-130			
Cadmium	0.104	0.001	"	0.100	0.0002	104	70-130			
Iron	0.552	0.050	"	0.100	0.452	100	70-130			
Copper	0.097	0.010	"	0.100	0.004	92	70-130			
Matrix Spike (9051366-MS2)		**Source: 19E0340-02**		Prepared: 05/13/19	Analyzed: 05/14/19					
Iron	80.7	5.00	mg/l	0.100	82.8	NR	70-130			QM-4X
Lead	0.500	0.005	"	0.100	0.390	110	70-130			
Zinc	97.0	2.00	"	0.100	96.0	969	70-130			QM-4X
Cadmium	0.119	0.001	"	0.100	0.013	106	70-130			
Copper	2.41	1.00	"	0.100	2.31	99	70-130			
Manganese	0.241	0.005	"	0.100	0.129	112	70-130			
Matrix Spike Dup (9051366-MSD1)		**Source: 19D1064-01**		Prepared: 05/13/19	Analyzed: 05/14/19					
Zinc	0.121	0.020	mg/l	0.100	0.036	85	70-130	3	20	
Lead	0.110	0.005	"	0.100	0.002	108	70-130	2	20	
Manganese	0.131	0.005	"	0.100	0.031	100	70-130	0.9	20	
Cadmium	0.105	0.001	"	0.100	0.0002	105	70-130	0.9	20	
Iron	0.557	0.050	"	0.100	0.452	105	70-130	0.9	20	
Copper	0.097	0.010	"	0.100	0.004	93	70-130	0.4	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051438										
Blank (9051438-BLK1)				Prepared & Analyzed: 05/14/19						
Manganese	ND	0.005	mg/l							
Cadmium	ND	0.001	"							
Chromium	ND	0.005	"							
Zinc	ND	0.020	"							
Iron	ND	0.050	"							
Copper	ND	0.010	"							
Lead	ND	0.005	"							
LCS (9051438-BS1)				Prepared & Analyzed: 05/14/19						
Manganese	0.104	0.005	mg/l	0.100		104	85-115			
Chromium	0.098	0.005	"	0.100		98	75-125			
Cadmium	0.102	0.001	"	0.100		102	85-115			
Zinc	0.100	0.020	"	0.100		100	85-115			
Iron	0.104	0.050	"	0.100		104	85-115			
Lead	0.099	0.005	"	0.100		99	75-125			
Copper	0.101	0.010	"	0.100		101	85-115			
LCS Dup (9051438-BSD1)				Prepared & Analyzed: 05/14/19						
Manganese	0.104	0.005	mg/l	0.100		104	85-115	0.1	20	
Cadmium	0.101	0.001	"	0.100		101	85-115	0.5	20	
Chromium	0.098	0.005	"	0.100		98	75-125	0.02	20	
Copper	0.102	0.010	"	0.100		102	85-115	0.2	20	
Lead	0.095	0.005	"	0.100		95	75-125	4	20	
Iron	0.102	0.050	"	0.100		102	85-115	2	20	
Zinc	0.100	0.020	"	0.100		100	85-115	0.1	20	
Duplicate (9051438-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Chromium	0.0002	0.005	mg/l		0.0002			4	20	
Cadmium	ND	0.001	"		ND				20	
Manganese	0.003	0.005	"		0.003			0.2	20	
Iron	0.489	0.050	"		0.466			5	20	
Zinc	0.002	0.020	"		0.002			0.2	20	
Lead	ND	0.005	"		ND				20	
Copper	ND	0.010	"		ND				20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051438										
Matrix Spike (9051438-MS1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Manganese	0.103	0.005	mg/l	0.100	0.003	99	70-130			
Chromium	0.094	0.005	"	0.100	0.0002	93	75-125			
Cadmium	0.101	0.001	"	0.100	ND	101	70-130			
Lead	0.100	0.005	"	0.100	ND	100	75-125			
Zinc	0.098	0.020	"	0.100	0.002	96	70-130			
Iron	0.579	0.050	"	0.100	0.466	113	70-130			
Copper	0.094	0.010	"	0.100	ND	94	70-130			
Matrix Spike Dup (9051438-MSD1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Manganese	0.103	0.005	mg/l	0.100	0.003	100	70-130	0.4	20	
Chromium	0.093	0.005	"	0.100	0.0002	93	75-125	0.3	20	
Cadmium	0.101	0.001	"	0.100	ND	101	70-130	0.6	20	
Lead	0.100	0.005	"	0.100	ND	100	75-125	0.5	20	
Copper	0.094	0.010	"	0.100	ND	94	70-130	0.3	20	
Zinc	0.098	0.020	"	0.100	0.002	96	70-130	0.4	20	
Iron	0.573	0.050	"	0.100	0.466	108	70-130	0.9	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050661										
Duplicate (9050661-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Specific Conductance (EC)	896	1.00	umhos/cm		890			0.7	20	
Reference (9050661-SRM1)				Prepared & Analyzed: 05/06/19						
Specific Conductance (EC)	440	1.00	umhos/cm	429		103	90-110			
Batch 9050739										
Blank (9050739-BLK1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	ND	20.0	mg/l							
Duplicate (9050739-DUP1)		**Source: 19E0100-01**		Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	1850	20.0	mg/l		1850			0.2	20	
Reference (9050739-SRM1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	362	20.0	mg/l	378		96	8.64-111.3			
Batch 9050745										
Duplicate (9050745-DUP1)		**Source: 19E0154-01**		Prepared & Analyzed: 05/06/19						
pH at 25 deg C	7.01	0.10	pH Units		7.44			6	20	
Reference (9050745-SRM1)				Prepared & Analyzed: 05/06/19						
pH at 25 deg C	5.90	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9050746										
Blank (9050746-BLK1)				Prepared & Analyzed: 05/06/19						
Color	ND	1	Color Units							

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050746										
Duplicate (9050746-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Color	31	1	Color Units		33			6	20	
Reference (9050746-SRM1)				Prepared & Analyzed: 05/06/19						
Color	50	1	Color Units	50.0		100	80-120			
Batch 9050747										
Blank (9050747-BLK1)				Prepared & Analyzed: 05/06/19						
Turbidity	ND	0.05	NTU							
Duplicate (9050747-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Turbidity	0.60	0.05	NTU		0.60			0	20	
Reference (9050747-SRM1)				Prepared & Analyzed: 05/06/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9050748										
Blank (9050748-BLK1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (9050748-BS1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00		97	80-120			
LCS Dup (9050748-BSD1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00		98	80-120	0.6	20	

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050748										
Duplicate (9050748-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	
Matrix Spike (9050748-MS1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	103	80-120			
Matrix Spike Dup (9050748-MSD1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	104	80-120	0.9	20	
Batch 9050749										
Blank (9050749-BLK1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	ND	0.05	mg/l							
LCS (9050749-BS1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.48	0.05	mg/l	0.500		95	80-120			
LCS Dup (9050749-BSD1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.47	0.05	mg/l	0.500		94	80-120	1	20	
Duplicate (9050749-DUP1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.09	0.05	mg/l		0.10			3	20	
Matrix Spike (9050749-MS1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.60	0.05	mg/l	0.500	0.10	102	80-120			
Matrix Spike Dup (9050749-MSD1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.59	0.05	mg/l	0.500	0.10	100	80-120	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b) (2)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050818										
Blank (9050818-BLK1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	ND	0.05	mg/l							
LCS (9050818-BS1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		96	90-110			
LCS Dup (9050818-BSD1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		95	90-110	1	20	
Duplicate (9050818-DUP1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	ND	0.05	mg/l		ND				20	
Matrix Spike (9050818-MS1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.99	0.10	mg/l	1.00	ND	99	80-120			
Matrix Spike Dup (9050818-MSD1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.97	0.10	mg/l	1.00	ND	97	80-120	2	20	
Batch 9050914										
Blank (9050914-BLK1)				Prepared & Analyzed: 05/09/19						
Hardness (Total)	ND	10	mg CaCO3/L							
Duplicate (9050914-DUP1)		**Source: 19E0209-01**		Prepared & Analyzed: 05/09/19						
Hardness (Total)	34	10	mg CaCO3/L		35			3	20	
Batch 9050919										
Blank (9050919-BLK1)				Prepared: 05/08/19 Analyzed: 05/09/19						
Total Suspended Solids	ND	20.0	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050919										
Duplicate (9050919-DUP1)		**Source: 19E0154-01**		Prepared: 05/08/19		Analyzed: 05/09/19				
Total Suspended Solids	3.0	20.0	mg/l		3.0			0	20	
Reference (9050919-SRM1)				Prepared: 05/08/19		Analyzed: 05/09/19				
Total Suspended Solids	94.0	20.0	mg/l	100		94	77.1-110			
Batch 9051017										
Blank (9051017-BLK1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9051017-BS1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		104	80-120			
LCS Dup (9051017-BSD1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		104	80-120	0	20	
Duplicate (9051017-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.19	0.05	mg/l		0.20			5	20	
Duplicate (9051017-DUP2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.47	0.05	mg/l		0.47			0.6	20	
Matrix Spike (9051017-MS1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.70	0.05	mg/l	0.500	0.20	100	80-120			
Matrix Spike (9051017-MS2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.97	0.05	mg/l	0.500	0.47	101	80-120			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051017										
Matrix Spike Dup (9051017-MSD1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.71	0.05	mg/l	0.500	0.20	101	80-120	0.7	20	
Matrix Spike Dup (9051017-MSD2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.97	0.05	mg/l	0.500	0.47	100	80-120	0.3	20	
Batch 9051028										
Blank (9051028-BLK1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	ND	0.5	mg/l							
LCS (9051028-BS1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	0.9	0.5	mg/l	1.00		95	90-110			
LCS Dup (9051028-BSD1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.0	0.5	mg/l	1.00		98	90-110	3	20	
Duplicate (9051028-DUP1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	ND	0.5	mg/l		ND				20	
Matrix Spike (9051028-MS1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.9	1.0	mg/l	2.00	ND	95	80-120			
Matrix Spike Dup (9051028-MSD1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.9	1.0	mg/l	2.00	ND	94	80-120	0.7	20	
Batch 9051030										
Blank (9051030-BLK1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	ND	0.10	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051030										
LCS (9051030-BS1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	0.92	0.10	mg/l	1.00		92	90-110			
LCS Dup (9051030-BSD1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	0.93	0.10	mg/l	1.00		93	90-110	2	20	
Duplicate (9051030-DUP1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	ND	0.10	mg/l		ND				20	
Matrix Spike (9051030-MS1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	1.88	0.20	mg/l	2.00	ND	94	80-120			
Matrix Spike Dup (9051030-MSD1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	1.93	0.20	mg/l	2.00	ND	96	80-120	3	20	
Batch 9051538										
Duplicate (9051538-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/05/19						
Dissolved Oxygen	8.07	0.10	mg/l		8.09			0.2	20	
Duplicate (9051538-DUP2)		**Source: 19E0148-01**		Prepared & Analyzed: 05/05/19						
Dissolved Oxygen	9.64	0.10	mg/l		9.66			0.2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0146

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
QM-4X	The spike recovery was outside of the QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

19E0146

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: [redacted]

Attn:

Samplers(s): [redacted]

Address: [redacted]

Phone: [redacted] Fax:

Email: [redacted]

Billing Address: [redacted]

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD ~~□ COD~~ □ Cyanide	Color	See attached			
1	[redacted]	5/5/19	10:20 a.m.	~~[illegible]~~ GW																			X	X				
2																												
3	See attached																											
4																												
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☑ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A	Containers Properly Preseved: Yes No N/A
Custody Seals Intact: Yes No N/A	Temp @ Receipt: 9C
COC/Labels Agree: Yes No N/A	Sampled By: Client EMA Autosampler

RELINQUISHED BY		DATE/TIME	RECEIVED BY	
Signature	John Peterson	5-5-19 1220	Signature	[illegible]
Print	John Peterson		Print	Will Schroider
Company:	Peterson Env Service		Company:	EMA
Signature			Signature	
Print			Print	
Company:			Company:	
Signature			Signature	
Print			Print	
Company:			Company:	

Project/Sample Comments:

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Analytical Services Quotation

Testing
Personal Privacy ex. (b)(6)

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	3	7	$20.00	$60.00
Water	Cadmium (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Total)	EPA 200.8	3	7	$15.00	$45.00
Water	Cadmium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Chromium (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Copper (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Iron (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Lead (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Zinc (Diss)	EPA 200.8	3	7	$15.00	$45.00
Water	Ammonia as N	EPA 350.1	3	7	$30.00	$90.00
Water	Dissolved Oxygen	SM4500-O G	3	7	$20.00	$60.00
Water	Hardness	EPA 200.7	3	7	$35.00	$105.00
Water	MBAS	SM5540 C	3	7	$30.00	$90.00
Water	Nitrate-Nitrite as N	EPA 353.2	3	7	$30.00	$90.00
Water	Orthophosphate as P	SM4500 P E	3	7	$20.00	$60.00
Water	pH in water	SM4500-H+ B	3	7	$20.00	$60.00
Water	Specific Conductance (EC)	SM2510 B	3	7	$25.00	$75.00
Water	Total Dissolved Solids	SM2540 C	3	7	$25.00	$75.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	3	7	$55.00	$165.00
Water	Total phosphate as P	SM4500 P B, E	3	7	$25.00	$75.00
Water	Total Suspended Solids	SM2540 D	3	7	$25.00	$75.00
Water	Turbidity	SM2130 B	3	7	$20.00	$60.00
Water	Coliform, Total & Fecal	SM 9221 B, E	3	7	$35.00	$105.00
Water	Enterococcus	SM 9230 A, B	3	7	$55.00	$165.00
						$1,905.00

1L Poly Ø
250 mL Ø
125 mL Amber
500 mL H2SO4
2 x 100 BACTI

19EU146

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☐ Follow-Up ***Station Class:*** ☐ Field ☐ Removed,_____

Site ID: Personal Privacy (b)(6)	**Latitude:** 33.9991	**Outfall Size:**
Location: Kelly Spring Personal Privacy ex. (b)(6)	**Longitude:** -116.9758	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6)	
Date: 5/5/19	**Time:** 8:00 a.m	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☑ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☐ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: 9 ☑ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5	~~liter~~ gal
Time to Fill	33.33	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☑ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☑ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☑ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other algal	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☐ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☐ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☑ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☑ Observed Discharge ☑ Indirect Evidence ☑ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☑ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☑ Yes ☐ No **Analytical Lab Samples Collected?** ☐ Yes ☐ No

Water Temp (°C)		NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☑ Follow-Up *Station Class:* ☐ Field ☑ Removed, _____

Site ID: S-Rock	**Latitude:** 32.9979	**Outfall Size:**
Location: Rock Haven Spring APN: 278-210-1800	**Longitude:** -116.9759	
	HSA: 905.21	
	Observer(s): John Paterson	
Date: 5-5-19 **Time:** 10:40 a.m		

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☑ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☑ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☑ Yes ☐ No

Flow Rate: ~1-3 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec

1 Liter/sec = 15.85 gpm

Volume too small to measure water quantity/quality

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☐ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☐ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☐ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☐ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☑ Other algal	
Structural Condition (select only one)	☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☐ Blockage	☐ Other	

Not enough water to measure

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☐ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☐ Aquatic Health

Comments: _____

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☐ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☐ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry) ☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other _____ ☐ Unable to Determine

Basis for Source Identification: ☐ Observed Discharge ☐ Indirect Evidence ☐ Historical Data ☐ Other _____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☐ No ☐ na (dry)

Source ID/Elimination Notes: _____

Field Screening Samples Collected? Yes ☒ No **Analytical Lab Samples Collected?** Yes ☒ No Not enough water

Water Temp (°C)		NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

EnviroMatrix Analytical, Inc.

18 May 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19E0148

Project Name: Testing
Project Desc./#: Warren Crossing

Enclosed are the results of analyses for samples received by the laboratory on 05/05/19 14:20. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Warren Crossing 33.0030 LAT-117.0057 LONG	19E0148-01	Drinking Water	05/05/19 12:25	05/05/19 14:20

NOTE: The TOC/DOC analyses were performed by a sub-contract laboratory, results to follow in a separate report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: [redacted]
Project Name: Testing

EMA Log #: 19E0148

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT-117.0057 LONG (19E0148-01) Drinking Water Sampled: 05/05/19 12:25 Received: 05/05/19 14:20									
Arsenic	ND	0.002	mg/l	1	9050686	05/06/19	05/07/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	**0.050**	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9051618	05/17/19	05/17/19	EPA 245.1	
Manganese	**0.015**	0.005	"	"	9050686	05/06/19	05/07/19	EPA 200.8	
Nickel	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Metals (Dissolved) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT-117.0057 LONG (19E0148-01) Drinking Water Sampled: 05/05/19 12:25 Received: 05/05/19 14:20									
Arsenic	ND	0.002	mg/l	1	9051438	05/14/19	05/14/19	EPA 200.8	
Cadmium	ND	0.001	"	"	"	"	"	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.010	"	"	"	"	"	"	
Iron	ND	0.050	"	"	"	"	"	"	
Mercury	ND	0.0001	"	"	9051621	05/17/19	05/17/19	EPA 245.1	
Manganese	**0.012**	0.005	"	"	9051438	05/14/19	05/14/19	EPA 200.8	
Nickel	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Selenium	ND	0.005	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT-117.0057 LONG (19E0148-01) Drinking Water Sampled: 05/05/19 12:25 Received: 05/05/19 14:20									
Azinphos methyl	ND	0.25	ug/l	1	9050766	05/07/19	05/14/19	EPA 8141A	
Bolstar	ND	0.10	"	"	"	"	"	"	
Chlorpyrifos	ND	0.05	"	"	"	"	"	"	
Coumaphos	ND	0.25	"	"	"	"	"	"	
Demeton-o	ND	1.00	"	"	"	"	"	"	
Demeton-s	ND	1.00	"	"	"	"	"	"	
Diazinon	ND	0.05	"	"	"	"	"	"	
Dichlorvos	ND	0.10	"	"	"	"	"	"	
Disulfoton	ND	0.10	"	"	"	"	"	"	
Ethoprop	ND	0.05	"	"	"	"	"	"	
Fensulfothion	ND	0.25	"	"	"	"	"	"	
Fenthion	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Mevinphos	ND	0.25	"	"	"	"	"	"	
Methyl parathion	ND	0.10	"	"	"	"	"	"	
Phorate	ND	0.05	"	"	"	"	"	"	
Ronnel	ND	0.25	"	"	"	"	"	"	
Tetrachlorvinphos	ND	0.25	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	0.25	"	"	"	"	"	"	
Trichlorinate	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		*126 %*	*60-130*		"	"	"	"	
Surrogate: Tributylphosphate		*108 %*	*60-130*		"	"	"	"	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT-117.0057 LONG (19E0148-01) Drinking Water Sampled: 05/05/19 12:25 Received: 05/05/19 14:20									
Ammonia as N	ND	0.10	mg/l	1	9051030	05/13/19	05/13/19	EPA 350.1	
Color	**33**	1	Color Units	"	9050746	05/06/19	05/06/19	SM2120 B	
Specific Conductance (EC)	**890**	1.00	umhos/cm	"	9050661	05/06/19	05/06/19	SM2510 B	
Hardness (Total)	**174**	10	mg CaCO3/L	"	9050751	05/07/19	05/07/19	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	"	9050748	05/06/19	05/06/19	SM5540 C	
Nitrate/Nitrite as N	ND	0.05	"	"	9050818	05/08/19	05/08/19	EPA 353.2	
Total Kjeldahl Nitrogen	ND	0.5	"	"	9051028	05/13/19	05/14/19	EPA 351.2	
Dissolved Oxygen	**9.66**	0.10	"	"	9051538	05/05/19	05/05/19	SM4500-O G	HT-15
pH at 25 deg C	**8.08**	0.10	pH Units	"	9050745	05/06/19	05/06/19	SM4500-H+ B	HT-15
Orthophosphate as P	ND	0.05	mg/l	"	9050749	05/07/19	05/07/19	SM4500 P E	
Phosphorus, Total	**0.20**	0.05	"	"	9051017	05/10/19	05/10/19	SM4500 P B, E	
Total Dissolved Solids	**531**	20.0	"	"	9050739	05/06/19	05/07/19	SM2540 C	
Total Suspended Solids	ND	20.0	"	"	9050919	05/08/19	05/09/19	SM2540 D	
Sulfate as SO4	**116**	50.0	"	10	9051367	05/10/19	05/10/19	SM4500 SO4 E	
Turbidity	**0.60**	0.05	NTU	1	9050747	05/06/19	05/06/19	SM2130 B	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Microbiological Parameters by Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT-117.0057 LONG (19E0148-01) Drinking Water Sampled: 05/05/19 12:25 Received: 05/05/19 14:20									
Total Coliforms	**1600**	2	MPN/100 ml	1	9050655	05/05/19	05/09/19	SM 9221 B, E	A-01
Fecal Coliforms	**1600**	2	"	"	"	"	05/08/19	"	A-01
Enterococcus	**240**	2	"	"	9050656	"	05/09/19	SM 9230 A, B	

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19E0148

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050686										
Blank (9050686-BLK1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Nickel	ND	0.005	mg/l							
Iron	ND	0.050	"							
Selenium	ND	0.005	"							
Manganese	ND	0.005	"							
Chromium	ND	0.005	"							
Cadmium	ND	0.001	"							
Thallium	ND	0.00100	"							
Lead	ND	0.005	"							
Copper	ND	0.010	"							
Zinc	ND	0.020	"							
Arsenic	ND	0.002	"							
LCS (9050686-BS1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Cadmium	0.104	0.001	mg/l	0.100		104	85-115			
Selenium	0.103	0.005	"	0.100		103	75-125			
Copper	0.097	0.010	"	0.100		97	85-115			
Chromium	0.097	0.005	"	0.100		97	85-115			
Thallium	0.0988	0.00100	"	0.100		99	85-115			
Iron	0.099	0.050	"	0.100		99	85-115			
Manganese	0.103	0.005	"	0.100		103	85-115			
Nickel	0.095	0.005	"	0.100		95	85-115			
Lead	0.098	0.005	"	0.100		98	85-115			
Zinc	0.098	0.020	"	0.100		98	85-115			
Arsenic	0.099	0.002	"	0.100		99	85-115			
LCS Dup (9050686-BSD1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Selenium	0.104	0.005	mg/l	0.100		104	75-125	2	20	
Manganese	0.104	0.005	"	0.100		104	85-115	0.8	20	
Nickel	0.096	0.005	"	0.100		96	85-115	1	20	
Lead	0.098	0.005	"	0.100		98	85-115	0.3	20	
Copper	0.099	0.010	"	0.100		99	85-115	2	20	
Chromium	0.098	0.005	"	0.100		98	85-115	1	20	
Iron	0.099	0.050	"	0.100		99	85-115	0.6	20	
Zinc	0.100	0.020	"	0.100		100	85-115	1	20	
Thallium	0.102	0.00100	"	0.100		102	85-115	3	20	
Cadmium	0.102	0.001	"	0.100		102	85-115	1	20	
Arsenic	0.097	0.002	"	0.100		97	85-115	1	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050686										
Duplicate (9050686-DUP1)		**Source: 19E0117-05**		Prepared: 05/06/19	Analyzed: 05/07/19					
Nickel	0.051	0.005	mg/l		0.052			0.2	20	
Lead	0.0003	0.005	"		0.0003			10	20	
Manganese	0.009	0.005	"		0.009			1	20	
Zinc	0.079	0.020	"		0.080			0.2	20	
Iron	0.035	0.050	"		0.035			0.5	20	
Selenium	ND	0.005	"		ND				20	
Thallium	ND	0.00100	"		ND				20	
Copper	0.498	0.010	"		0.489			2	20	
Cadmium	ND	0.001	"		ND				20	
Chromium	0.0002	0.005	"		0.0002				20	
Arsenic	0.0005	0.002	"		0.0005			1	20	
Matrix Spike (9050686-MS1)		**Source: 19E0117-05**		Prepared: 05/06/19	Analyzed: 05/07/19					
Cadmium	0.100	0.001	mg/l	0.100	ND	100	70-130			
Chromium	0.095	0.005	"	0.100	0.0002	95	70-130			
Zinc	0.177	0.020	"	0.100	0.080	97	70-130			
Lead	0.098	0.005	"	0.100	0.0003	98	70-130			
Nickel	0.140	0.005	"	0.100	0.052	88	70-130			
Manganese	0.108	0.005	"	0.100	0.009	99	70-130			
Copper	0.575	0.010	"	0.100	0.489	86	70-130			
Thallium	0.102	0.00100	"	0.100	ND	102	70-130			
Iron	0.129	0.050	"	0.100	0.035	94	70-130			
Selenium	0.111	0.005	"	0.100	ND	111	75-125			
Arsenic	0.101	0.002	"	0.100	0.0005	101	70-130			
Matrix Spike (9050686-MS2)		**Source: 19E0175-01**		Prepared: 05/06/19	Analyzed: 05/07/19					
Lead	0.099	0.005	mg/l	0.100	0.002	97	70-130			
Zinc	0.137	0.020	"	0.100	0.038	99	70-130			
Iron	0.125	0.050	"	0.100	0.027	98	70-130			
Manganese	0.102	0.005	"	0.100	0.001	101	70-130			
Thallium	0.0995	0.00100	"	0.100	ND	100	70-130			
Chromium	0.095	0.005	"	0.100	ND	95	70-130			
Nickel	0.091	0.005	"	0.100	ND	91	70-130			
Selenium	0.107	0.005	"	0.100	ND	107	75-125			
Cadmium	0.101	0.001	"	0.100	ND	101	70-130			
Copper	0.101	0.010	"	0.100	0.008	93	70-130			
Arsenic	0.100	0.002	"	0.100	0.001	99	70-130			

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050686										
Matrix Spike Dup (9050686-MSD1)		**Source: 19E0117-05**		Prepared: 05/06/19 Analyzed: 05/07/19						
Thallium	0.104	0.00100	mg/l	0.100	ND	104	70-130	3	20	
Lead	0.099	0.005	"	0.100	0.0003	99	70-130	1	20	
Nickel	0.139	0.005	"	0.100	0.052	88	70-130	0.6	20	
Selenium	0.110	0.005	"	0.100	ND	110	75-125	1	20	
Zinc	0.175	0.020	"	0.100	0.080	95	70-130	1	20	
Manganese	0.109	0.005	"	0.100	0.009	100	70-130	0.8	20	
Copper	0.576	0.010	"	0.100	0.489	86	70-130	0.01	20	
Iron	0.127	0.050	"	0.100	0.035	93	70-130	1	20	
Chromium	0.095	0.005	"	0.100	0.0002	95	70-130	0.01	20	
Cadmium	0.100	0.001	"	0.100	ND	100	70-130	0.4	20	
Arsenic	0.102	0.002	"	0.100	0.0005	101	70-130	0.2	20	
Batch 9051618										
Blank (9051618-BLK1)				Prepared & Analyzed: 05/17/19						
Mercury	ND	0.0001	mg/l							
LCS (9051618-BS1)				Prepared & Analyzed: 05/17/19						
Mercury	0.002	0.0001	mg/l	0.00200		97	75-125			
LCS Dup (9051618-BSD1)				Prepared & Analyzed: 05/17/19						
Mercury	0.002	0.0001	mg/l	0.00200		95	75-125	2	20	
Duplicate (9051618-DUP1)		**Source: 19E0175-01**		Prepared & Analyzed: 05/17/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9051618-MS1)		**Source: 19E0175-01**		Prepared & Analyzed: 05/17/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	93	75-125			

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Client Name: Personal Privacy ex. (b)
Project Name: Testing

EMA Log #: 19E0148

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051618										
Matrix Spike Dup (9051618-MSD1)		**Source: 19E0175-01**		Prepared & Analyzed: 05/17/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	94	75-125	0.6	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051438										
Blank (9051438-BLK1)				Prepared & Analyzed: 05/14/19						
Selenium	ND	0.005	mg/l							
Chromium	ND	0.005	"							
Thallium	ND	0.00100	"							
Arsenic	ND	0.002	"							
Nickel	ND	0.005	"							
Manganese	ND	0.005	"							
Cadmium	ND	0.001	"							
Iron	ND	0.050	"							
Lead	ND	0.005	"							
Zinc	ND	0.020	"							
Copper	ND	0.010	"							
LCS (9051438-BS1)				Prepared & Analyzed: 05/14/19						
Manganese	0.104	0.005	mg/l	0.100		104	85-115			
Thallium	0.100	0.00100	"	0.100		100	85-115			
Chromium	0.098	0.005	"	0.100		98	75-125			
Selenium	0.100	0.005	"	0.100		100	75-125			
Cadmium	0.102	0.001	"	0.100		102	85-115			
Nickel	0.098	0.005	"	0.100		98	85-115			
Arsenic	0.098	0.002	"	0.100		98	75-125			
Lead	0.099	0.005	"	0.100		99	75-125			
Zinc	0.100	0.020	"	0.100		100	85-115			
Copper	0.101	0.010	"	0.100		101	85-115			
Iron	0.104	0.050	"	0.100		104	85-115			
LCS Dup (9051438-BSD1)				Prepared & Analyzed: 05/14/19						
Selenium	0.099	0.005	mg/l	0.100		99	75-125	0.6	20	
Chromium	0.098	0.005	"	0.100		98	75-125	0.02	20	
Manganese	0.104	0.005	"	0.100		104	85-115	0.1	20	
Cadmium	0.101	0.001	"	0.100		101	85-115	0.5	20	
Arsenic	0.099	0.002	"	0.100		99	75-125	0.5	20	
Nickel	0.098	0.005	"	0.100		98	85-115	0.4	20	
Thallium	0.0935	0.00100	"	0.100		94	85-115	7	20	
Copper	0.102	0.010	"	0.100		102	85-115	0.2	20	
Iron	0.102	0.050	"	0.100		102	85-115	2	20	
Lead	0.095	0.005	"	0.100		95	75-125	4	20	
Zinc	0.100	0.020	"	0.100		100	85-115	0.1	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051438										
Duplicate (9051438-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Selenium	ND	0.005	mg/l		ND				20	
Chromium	0.0002	0.005	"		0.0002			4	20	
Arsenic	0.0002	0.002	"		0.0002			3	20	
Manganese	0.003	0.005	"		0.003			0.2	20	
Thallium	ND	0.00100	"		ND				20	
Nickel	0.0004	0.005	"		0.0004			5	20	
Cadmium	ND	0.001	"		ND				20	
Zinc	0.002	0.020	"		0.002			0.2	20	
Copper	ND	0.010	"		ND				20	
Iron	0.489	0.050	"		0.466			5	20	
Lead	ND	0.005	"		ND				20	
Matrix Spike (9051438-MS1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Chromium	0.094	0.005	mg/l	0.100	0.0002	93	75-125			
Cadmium	0.101	0.001	"	0.100	ND	101	70-130			
Arsenic	0.098	0.002	"	0.100	0.0002	98	75-125			
Selenium	0.098	0.005	"	0.100	ND	98	75-125			
Thallium	0.0977	0.00100	"	0.100	ND	98	70-130			
Manganese	0.103	0.005	"	0.100	0.003	99	70-130			
Nickel	0.092	0.005	"	0.100	0.0004	91	70-130			
Iron	0.579	0.050	"	0.100	0.466	113	70-130			
Copper	0.094	0.010	"	0.100	ND	94	70-130			
Zinc	0.098	0.020	"	0.100	0.002	96	70-130			
Lead	0.100	0.005	"	0.100	ND	100	75-125			
Matrix Spike Dup (9051438-MSD1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/14/19						
Nickel	0.092	0.005	mg/l	0.100	0.0004	91	70-130	0.003	20	
Manganese	0.103	0.005	"	0.100	0.003	100	70-130	0.4	20	
Chromium	0.093	0.005	"	0.100	0.0002	93	75-125	0.3	20	
Thallium	0.0969	0.00100	"	0.100	ND	97	70-130	0.8	20	
Arsenic	0.099	0.002	"	0.100	0.0002	98	75-125	0.3	20	
Cadmium	0.101	0.001	"	0.100	ND	101	70-130	0.6	20	
Selenium	0.095	0.005	"	0.100	ND	95	75-125	3	20	
Copper	0.094	0.010	"	0.100	ND	94	70-130	0.3	20	
Iron	0.573	0.050	"	0.100	0.466	108	70-130	0.9	20	
Zinc	0.098	0.020	"	0.100	0.002	96	70-130	0.4	20	
Lead	0.100	0.005	"	0.100	ND	100	75-125	0.5	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051621										
Blank (9051621-BLK1)				Prepared & Analyzed: 05/17/19						
Mercury	ND	0.0001	mg/l							
LCS (9051621-BS1)				Prepared & Analyzed: 05/17/19						
Mercury	0.0019	0.0001	mg/l	0.00200		97	75-125			
LCS Dup (9051621-BSD1)				Prepared & Analyzed: 05/17/19						
Mercury	0.0019	0.0001	mg/l	0.00200		95	75-125	2	20	
Duplicate (9051621-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/17/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9051621-MS1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/17/19						
Mercury	0.0019	0.0001	mg/l	0.00200	ND	97	75-125			
Matrix Spike Dup (9051621-MSD1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/17/19						
Mercury	0.0019	0.0001	mg/l	0.00200	ND	95	75-125	3	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050766										
Blank (9050766-BLK1)				Prepared: 05/07/19 Analyzed: 05/14/19						
Azinphos methyl	ND	0.25	ug/l							
Bolstar	ND	0.10	"							
Chlorpyrifos	ND	0.05	"							
Coumaphos	ND	0.25	"							
Demeton-o	ND	1.00	"							
Demeton-s	ND	1.00	"							
Diazinon	ND	0.05	"							
Dichlorvos	ND	0.10	"							
Disulfoton	ND	0.10	"							
Ethoprop	ND	0.05	"							
Fensulfothion	ND	0.25	"							
Fenthion	ND	0.05	"							
Malathion	ND	0.05	"							
Mevinphos	ND	0.25	"							
Methyl parathion	ND	0.10	"							
Phorate	ND	0.05	"							
Ronnel	ND	0.25	"							
Tetrachlorvinphos	ND	0.25	"							
Tokuthion (Prothiofos)	ND	0.25	"							
Trichlorinate	ND	0.05	"							
Surrogate: Triphenyl phosphate	*0.308*		"	*0.250*		*123*	*60-130*			
Surrogate: Tributylphosphate	*0.231*		"	*0.250*		*92*	*60-130*			
LCS (9050766-BS1)				Prepared: 05/07/19 Analyzed: 05/14/19						
Bolstar	0.48	0.10	ug/l	0.500		95	60-130			
Diazinon	0.54	0.05	"	0.500		109	60-130			
Ethoprop	0.53	0.05	"	0.500		105	60-130			
Mevinphos	0.48	0.25	"	0.500		96	60-130			
Methyl parathion	0.60	0.10	"	0.500		121	60-130			
Phorate	0.47	0.05	"	0.500		94	60-130			
Ronnel	0.52	0.25	"	0.500		104	60-130			
Trichlorinate	0.53	0.05	"	0.500		106	60-130			
Surrogate: Triphenyl phosphate	*0.281*		"	*0.250*		*112*	*60-130*			
Surrogate: Tributylphosphate	*0.239*		"	*0.250*		*96*	*60-130*			

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050766										
LCS Dup (9050766-BSD1)				Prepared: 05/07/19 Analyzed: 05/14/19						
Bolstar	0.42	0.10	ug/l	0.500		85	60-130	12	30	
Diazinon	0.54	0.05	"	0.500		109	60-130	0	30	
Ethoprop	0.51	0.05	"	0.500		102	60-130	3	30	
Mevinphos	0.45	0.25	"	0.500		91	60-130	6	30	
Methyl parathion	0.59	0.10	"	0.500		119	60-130	2	30	
Phorate	0.42	0.05	"	0.500		84	60-130	11	30	
Ronnel	0.45	0.25	"	0.500		91	60-130	14	30	
Trichlorinate	0.55	0.05	"	0.500		110	60-130	4	30	
Surrogate: Triphenyl phosphate	*0.291*		"	*0.250*		*116*	*60-130*			
Surrogate: Tributylphosphate	*0.256*		"	*0.250*		*102*	*60-130*			

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050661										
Duplicate (9050661-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Specific Conductance (EC)	896	1.00	umhos/cm		890			0.7	20	
Reference (9050661-SRM1)				Prepared & Analyzed: 05/06/19						
Specific Conductance (EC)	440	1.00	umhos/cm	429		103	90-110			
Batch 9050739										
Blank (9050739-BLK1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	ND	20.0	mg/l							
Duplicate (9050739-DUP1)		**Source: 19E0100-01**		Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	1850	20.0	mg/l		1850			0.2	20	
Reference (9050739-SRM1)				Prepared: 05/06/19 Analyzed: 05/07/19						
Total Dissolved Solids	362	20.0	mg/l	378		96	8.64-111.3			
Batch 9050745										
Duplicate (9050745-DUP1)		**Source: 19E0154-01**		Prepared & Analyzed: 05/06/19						
pH at 25 deg C	7.01	0.10	pH Units		7.44			6	20	
Reference (9050745-SRM1)				Prepared & Analyzed: 05/06/19						
pH at 25 deg C	5.90	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9050746										
Blank (9050746-BLK1)				Prepared & Analyzed: 05/06/19						
Color	ND	1	Color Units							

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050746										
Duplicate (9050746-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Color	31	1	Color Units		33			6	20	
Reference (9050746-SRM1)				Prepared & Analyzed: 05/06/19						
Color	50	1	Color Units	50.0		100	80-120			
Batch 9050747										
Blank (9050747-BLK1)				Prepared & Analyzed: 05/06/19						
Turbidity	ND	0.05	NTU							
Duplicate (9050747-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/06/19						
Turbidity	0.60	0.05	NTU		0.60			0	20	
Reference (9050747-SRM1)				Prepared & Analyzed: 05/06/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9050748										
Blank (9050748-BLK1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (9050748-BS1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00		97	80-120			
LCS Dup (9050748-BSD1)				Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00		98	80-120	0.6	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050748										
Duplicate (9050748-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	
Matrix Spike (9050748-MS1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	103	80-120			
Matrix Spike Dup (9050748-MSD1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/06/19						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	104	80-120	0.9	20	
Batch 9050749										
Blank (9050749-BLK1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	ND	0.05	mg/l							
LCS (9050749-BS1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.48	0.05	mg/l	0.500		95	80-120			
LCS Dup (9050749-BSD1)				Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.47	0.05	mg/l	0.500		94	80-120	1	20	
Duplicate (9050749-DUP1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.09	0.05	mg/l		0.10			3	20	
Matrix Spike (9050749-MS1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.60	0.05	mg/l	0.500	0.10	102	80-120			
Matrix Spike Dup (9050749-MSD1)		**Source: 19E0173-05**		Prepared & Analyzed: 05/07/19						
Orthophosphate as P	0.59	0.05	mg/l	0.500	0.10	100	80-120	2	20	

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Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050751										
Blank (9050751-BLK1)				Prepared & Analyzed: 05/07/19						
Hardness (Total)	ND	10	mg CaCO3/L							
Duplicate (9050751-DUP1)		**Source: 19E0152-05**		Prepared & Analyzed: 05/07/19						
Hardness (Total)	422	10	mg CaCO3/L		417			1	20	
Batch 9050818										
Blank (9050818-BLK1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	ND	0.05	mg/l							
LCS (9050818-BS1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		96	90-110			
LCS Dup (9050818-BSD1)				Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.48	0.05	mg/l	0.500		95	90-110	1	20	
Duplicate (9050818-DUP1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	ND	0.05	mg/l		ND				20	
Matrix Spike (9050818-MS1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.99	0.10	mg/l	1.00	ND	99	80-120			
Matrix Spike Dup (9050818-MSD1)		**Source: 19E0203-01**		Prepared & Analyzed: 05/08/19						
Nitrate/Nitrite as N	0.97	0.10	mg/l	1.00	ND	97	80-120	2	20	
Batch 9050919										
Blank (9050919-BLK1)				Prepared: 05/08/19 Analyzed: 05/09/19						
Total Suspended Solids	ND	20.0	mg/l							

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Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9050919										
Duplicate (9050919-DUP1)		**Source: 19E0154-01**		Prepared: 05/08/19 Analyzed: 05/09/19						
Total Suspended Solids	3.0	20.0	mg/l		3.0			0	20	
Reference (9050919-SRM1)				Prepared: 05/08/19 Analyzed: 05/09/19						
Total Suspended Solids	94.0	20.0	mg/l	100		94	77.1-110			
Batch 9051017										
Blank (9051017-BLK1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9051017-BS1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		104	80-120			
LCS Dup (9051017-BSD1)				Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		104	80-120	0	20	
Duplicate (9051017-DUP1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.19	0.05	mg/l		0.20			5	20	
Duplicate (9051017-DUP2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.47	0.05	mg/l		0.47			0.6	20	
Matrix Spike (9051017-MS1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.70	0.05	mg/l	0.500	0.20	100	80-120			
Matrix Spike (9051017-MS2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.97	0.05	mg/l	0.500	0.47	101	80-120			

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Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051017										
Matrix Spike Dup (9051017-MSD1)		**Source: 19E0148-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.71	0.05	mg/l	0.500	0.20	101	80-120	0.7	20	
Matrix Spike Dup (9051017-MSD2)		**Source: 19E0371-01**		Prepared & Analyzed: 05/10/19						
Phosphorus, Total	0.97	0.05	mg/l	0.500	0.47	100	80-120	0.3	20	
Batch 9051028										
Blank (9051028-BLK1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	ND	0.5	mg/l							
LCS (9051028-BS1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	0.9	0.5	mg/l	1.00		95	90-110			
LCS Dup (9051028-BSD1)				Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.0	0.5	mg/l	1.00		98	90-110	3	20	
Duplicate (9051028-DUP1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	ND	0.5	mg/l		ND				20	
Matrix Spike (9051028-MS1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.9	1.0	mg/l	2.00	ND	95	80-120			
Matrix Spike Dup (9051028-MSD1)		**Source: 19E0441-02**		Prepared: 05/13/19 Analyzed: 05/14/19						
Total Kjeldahl Nitrogen	1.9	1.0	mg/l	2.00	ND	94	80-120	0.7	20	
Batch 9051030										
Blank (9051030-BLK1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	ND	0.10	mg/l							

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Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051030										
LCS (9051030-BS1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	0.92	0.10	mg/l	1.00		92	90-110			
LCS Dup (9051030-BSD1)				Prepared & Analyzed: 05/13/19						
Ammonia as N	0.93	0.10	mg/l	1.00		93	90-110	2	20	
Duplicate (9051030-DUP1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	ND	0.10	mg/l		ND				20	
Matrix Spike (9051030-MS1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	1.88	0.20	mg/l	2.00	ND	94	80-120			
Matrix Spike Dup (9051030-MSD1)		**Source: 19E0441-02**		Prepared & Analyzed: 05/13/19						
Ammonia as N	1.93	0.20	mg/l	2.00	ND	96	80-120	3	20	
Batch 9051367										
Blank (9051367-BLK1)				Prepared & Analyzed: 05/10/19						
Sulfate as SO4	ND	5.0	mg/l							
LCS (9051367-BS1)				Prepared & Analyzed: 05/10/19						
Sulfate as SO4	9.2	5.0	mg/l	10.0		92	80-120			
LCS Dup (9051367-BSD1)				Prepared & Analyzed: 05/10/19						
Sulfate as SO4	9.3	5.0	mg/l	10.0		93	80-120	0.2	20	
Duplicate (9051367-DUP1)		**Source: 19E0320-01**		Prepared & Analyzed: 05/10/19						
Sulfate as SO4	268	50.0	mg/l		267			0.4	20	

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Client Name: Personal Privacy ex. (b)(6)
Project Name: Testing

EMA Log #: 19E0148

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9051367										
Matrix Spike (9051367-MS1)		**Source: 19E0320-01**		Prepared & Analyzed: 05/10/19						
Sulfate as SO4	365	50.0	mg/l	100	267	97	80-120			
Matrix Spike Dup (9051367-MSD1)		**Source: 19E0320-01**		Prepared & Analyzed: 05/10/19						
Sulfate as SO4	364	50.0	mg/l	100	267	96	80-120	0.2	20	
Batch 9051538										
Duplicate (9051538-DUP1)		**Source: 19E0146-01**		Prepared & Analyzed: 05/05/19						
Dissolved Oxygen	8.07	0.10	mg/l		8.09			0.2	20	
Duplicate (9051538-DUP2)		**Source: 19E0148-01**		Prepared & Analyzed: 05/05/19						
Dissolved Oxygen	9.64	0.10	mg/l		9.66			0.2	20	

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Client Name: Personal Privacy ex. (b)(6)	**EMA Log #: 19E0148**
Project Name: Testing	

Notes and Definitions

HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
A-01	MPN/100ml >/= 1600
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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19E0148

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6)

Attn:

Samplers(s): Personal Privacy ex.

Address: Personal Privacy ex. (b)(6)

Phone(Personal Privacy ex. Fax:

Email: Personal Privacy ex. (b)

Billing Address: Personal Privacy ex. (b)(6)

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □TDS	□ Nitrate □ Nitrite □ TKN □NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Color	see addendum			
1	Warren Crossing	5/4/19		DW																				X	X			
2		5/5/19	12:25pm																									
3	33.0030 LAT																											
4	-117.0057 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day X STD (7 day)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preseved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 3°

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature	5-5-19 1420	Signature
Print Personal Privacy (b)(6)		Print Will Summerford
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments: Flow weighted composite sample 24 hr period: 5/4/19 @ 2:30pm (19.35 gal/min) 5/4/19 @ 6:35pm (16.21 gal/min) 5/5/19 @ 6:56 a.m (27.27 gal/min) 5/5/19 @ 12:25 p.m (25 gal/min)

Microb. sample @ 12:25 pm 5/5/19

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Analytical Services Quotation

Testing
Personal Privacy ex. (b)(6)
[redacted]

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Metals Digestion/Prep Fee	Method	1	7	$20.00	$20.00
Water	Synthetic Pyrethroids	GC/MS-EPA 8270	1	20	$400.00	$400.00
Water	Arsenic (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Cadmium (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Chromium (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Copper (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Iron (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Lead (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Mercury (Total)	EPA 245.1	1	7	$40.00	$40.00
Water	Nickel (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Selenium (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Thallium (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Zinc (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Arsenic (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Cadmium (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Chromium (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Copper (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Iron (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Lead (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Mercury (Diss)	EPA 245.1	1	7	$25.00	$25.00
Water	Nickel (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Selenium (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Thallium (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Zinc (Diss)	EPA 200.8	1	7	$15.00	$15.00
Water	Organophosphorus Pesticides	EPA 8141A	1	7	$230.00	$230.00
Water	Ammonia as N	EPA 350.1	1	7	$30.00	$30.00
Water	Dissolved Organic Carbon	SM5310 B	1	7	$80.00	$80.00
Water	Dissolved Oxygen	SM4500-O G	1	7	$20.00	$20.00
Water	Hardness	EPA 200.7	1	7	$35.00	$35.00
Water	MBAS	SM5540 C	1	7	$30.00	$30.00
Water	Nitrate-Nitrite as N	EPA 353.2	1	7	$30.00	$30.00
Water	Orthophosphate as P	SM4500 P E	1	7	$20.00	$20.00
Water	pH in water	SM4500-H+ B	1	7	$20.00	$20.00
Water	Specific Conductance (EC)	SM2510 B	1	7	$25.00	$25.00
Water	Sulfate	SM4500 SO4 E	1	7	$20.00	$20.00
Water	Total Dissolved Solids	SM2540 C	1	7	$25.00	$25.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	1	7	$55.00	$55.00
Water	Total Organic Carbon	SM5310B	1	7	$70.00	$70.00
Water	Total phosphate as P	SM4500 P B, E	1	7	$25.00	$25.00
Water	Total Suspended Solids	SM2540 D	1	7	$25.00	$25.00
Water	Turbidity	SM2130 B	1	7	$20.00	$20.00
Water	Coliform, Total & Fecal	SM 9221 B, E	1	7	$35.00	$35.00
Water	Enterococcus	SM 9230 A, B	1	7	$55.00	$55.00
						$1,635.00

1WEC148

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

EnviroMatrix Analytical, Inc.

17 May 2019

Personal Privacy ex. (b)(6)
Personal Privacy ex. (b)(6)

EMA Log #: 19E0148

Project Name: Testing
Project Desc./#: Warren Crossing

Enclosed with this letter are the test results performed by subcontract laboratory for the following analyses:

- TOC – Liquid by SM5310B
- DOC – Liquid by SM 5310B

The samples were received by EnviroMatrix Analytical, Inc. intact and with chain-of-custody documentation. The test results and pertinent quality assurance/quality control data are listed on the attached tables.

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hard copy data report has been authorized by the following signature.

Dan Verdon
Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

Work Orders: 9E07038

Project: 19E0148

Attn: Dan Verdon

Client: Enviromatrix Analytical, Inc
4340 Viewridge Avenue, Suite A
San Diego, CA 92123

Report Date: 5/16/2019

Received Date: 5/7/2019

Turnaround Time: Normal

Phones: (858) 560-7717

Fax: (858) 560-7763

P.O. #:

Billing Code:

Dear Dan Verdon,

Enclosed are the results of analyses for samples received 5/07/19 with the Chain-of-Custody document. The samples were received in good condition, at 4.4 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Warren Crossing 33.0030

9E07038-01 (Water)

Sampled: 05/05/19 12:25 by Client

Analyte		Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: SM 5310B	**Batch ID:** W9E0542	**Instr:** TOC02		**Prepared:** 05/09/19 15:21			**Analyst:** jlp	
Dissolved Organic Carbon		6.6	0.013	0.30	mg/l	1	05/09/19 16:20	
Method: SM 5310B	**Batch ID:** W9E0585	**Instr:** TOC02		**Prepared:** 05/10/19 11:21			**Analyst:** jlp	
Total Organic Carbon (TOC)		7.4	0.0090	0.30	mg/l	1	05/10/19 12:32	

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W9E0542-BLK1)					**Prepared & Analyzed: 05/09/19**						
Dissolved Organic Carbon	0.0843	0.013	0.30	mg/l							J
LCS (W9E0542-BS1)					**Prepared & Analyzed: 05/09/19**						
Dissolved Organic Carbon	1.03	0.013	0.30	mg/l	1.00		103	85-115			
Matrix Spike (W9E0542-MS1)	**Source: 9E06077-01**				**Prepared & Analyzed: 05/09/19**						
Dissolved Organic Carbon	5.84	0.013	0.30	mg/l	5.00	*1.76*	82	74-120			
Matrix Spike Dup (W9E0542-MSD1)	**Source: 9E06077-01**				**Prepared & Analyzed: 05/09/19**						
Dissolved Organic Carbon	5.83	0.013	0.30	mg/l	5.00	*1.76*	81	74-120	0.2	20	
Blank (W9E0585-BLK1)					**Prepared & Analyzed: 05/10/19**						
Total Organic Carbon (TOC)	0.0563	0.0090	0.30	mg/l							J
LCS (W9E0585-BS1)					**Prepared & Analyzed: 05/10/19**						
Total Organic Carbon (TOC)	1.12	0.0090	0.30	mg/l	1.00		112	85-115			
Matrix Spike (W9E0585-MS1)	**Source: 9E09031-02**				**Prepared & Analyzed: 05/10/19**						
Total Organic Carbon (TOC)	6.62	0.0090	0.30	mg/l	5.00	*1.83*	96	76-115			
Matrix Spike Dup (W9E0585-MSD1)	**Source: 9E09031-02**				**Prepared & Analyzed: 05/10/19**						
Total Organic Carbon (TOC)	6.57	0.0090	0.30	mg/l	5.00	*1.83*	95	76-115	0.8	20	

WECK LABORATORIES, INC

Certificate of Analysis

FINAL REPORT

Notes and Definitions

Item	Definition
J	Estimated conc. detected <MRL and >MDL.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.
An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)
All results are expressed on wet weight basis unless otherwise specified.
All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Reviewed by:

Regina Giancola
Project Manager

EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L2457.01 • LACSD #10143 • NELAP-CA #04229CA • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

WECK LABORATORIES, INC.

Sample Receipt

WORK ORDER:	9E07038	**Printed:**	5/8/2019 11:30:50AM
Client:	Enviromatrix Analytical, Inc	**Project Manager:**	Regina Giancola
Project:	Enviromatrix Analytical	**Project Number:**	19E0148

Report To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763

Invoice To:
Enviromatrix Analytical, Inc
Dan Verdon
4340 Viewridge Avenue, Suite A
San Diego, CA 92123
Phone :(858) 560-7717
Fax: (858) 560-7763

Date Due:	05/21/19 09:00 (10 day TAT)		
Received By:	Jaime Gomez	**Date Received:**	05/07/19 10:20
Logged In By:	Jaime Gomez	**Date Logged In:**	05/07/19 11:29

Samples Received at:	**4.4°C**				
All containers intact:	**Yes**	Sample labels & COC agree	**Yes**	Sufficient holding time for all tests	**Yes**
Custody Seals	**No**	Samples preserved properly	**Yes**	Received on Ice	**Yes**
Chain of custody completed	**Yes**	Sample volume sufficient	**Yes**	Appropriate sample containers	**Yes**

Samples

Analysis	Expires	Analysis Comments
9E07038-01 Sample Name: Warren Crossing 33.0030 [Water] Sampled 5/5/2019 12:25		
DOC-5310B Comb	06/02/19 12:25	
TOC-5310B_w Comb	06/02/19 12:25	

Regina Giancola — 5/8/2019
Authorized Signature — Date

Note:
If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

14859 Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19E0148

9E07038

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: Warren Crossing 33.0030 L/Water		**Sampled:05/05/19 12:25**	[illegible]	
TOC-Liquid by SM5310B	05/15/19 16:00	06/02/19 12:25		
DOC - Liquid by SM5310 B	05/15/19 16:00	05/07/19 12:25		
Containers Supplied:				
~~1L Amber Unpres. (D)~~	Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)

AW Amanda Walster 5-6-19 FedEx

Released By Date Received By Date

FedEx Jamelman 5/7/19 1020 4.4C T-0131

Released By Date Received By Date

SUBCONTRACT ORDER

EnviroMatrix Analytical, Inc.

19E0148

SENDING LABORATORY:

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A
San Diego, CA 92123
Phone: (858) 560-7717
Fax: (858) 560-7763
Project Manager: Dan Verdon

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E. Clark Ave
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

STD TAT

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: Warren Crossing 33.0030 L/Water		**Sampled:05/05/19 12:25**		
TOC-Liquid by SM5310B	05/15/19 16:00	06/02/19 12:25		
DOC - Liquid by SM5310 B	05/15/19 16:00	05/07/19 12:25		
Containers Supplied:				
~~1L Amber Unpres. (D)~~	Voa Vial - HCl (G)	Voa Vial - HCl (H)	Voa Vial - Unpres (I)	Voa Vial - Unpres (J)

AW Amanda Walster 5-6-19

Released By	Date	Received By	Date

Released By	Date	Received By	Date

19E0148

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6)

Attn:

Samplers(s): Personal Privacy ex. (b)(6)

Address: Personal Privacy ex. (b)(6)

Phone Personal Privacy ex. (b)(6) Fax:

Email: Personal Privacy ex. (b)(6)

Billing Address: Personal Privacy ex. (b)(6)

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Coliform, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Coliform	see addendum			
1	Warren Crossing	5/4/19		DW																				X	X			
2		5/5/19	12:35pm																									
3	33.0030 LAT																											
4	-117.0057 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other

[1]Turn-Around-Time: □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day X STD (7 day)

[1]Reporting Requirements: □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]Sample Disposal: □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preseved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 3d

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	5-5-19 1420	Signature [signature]
Print Personal Privacy ex. (b)(6)		Print Will Summerford
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company.
Signature		Signature
Print		Print
Company:		Company.

Project/Sample Comments: Flow weighted Composite Sample 24 hr period: 5/4/19 @ 2:30pm (19.35 gal/min) 5/5/19 @ 6.56 a.m (27.27 gal/min) 5/4/19 @ 6.35pm (16.21 gal/min) 5/5/19 @ 12:25 p.m (25 gal/min) Microb. sample @ 12:25 pm 5/5/19

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Analytical Services Quotation

Testing
Personal Privacy ex. (b)(6) [redacted]

Bid Date: 04/12/2019
Bid Expires: 12/31/2019
Prices Expire: 12/31/2019

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
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Water	Iron (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Lead (Total)	EPA 200.8	1	7	$15.00	$15.00
Water	Mercury (Total)	EPA 245.1	1	7	$40.00	$40.00
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Water	Lead (Diss)	EPA 200.8	1	7	$15.00	$15.00
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Water	Organophosphorus Pesticides	EPA 8141A	1	7	$230.00	$230.00
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Water	MBAS	SM5540 C	1	7	$30.00	$30.00
Water	Nitrate-Nitrite as N	EPA 353.2	1	7	$30.00	$30.00
Water	Orthophosphate as P	SM4500 P E	1	7	$20.00	$20.00
Water	pH in water	SM4500-H+ B	1	7	$20.00	$20.00
Water	Specific Conductance (EC)	SM2510 B	1	7	$25.00	$25.00
Water	Sulfate	SM4500 SO4 E	1	7	$20.00	$20.00
Water	Total Dissolved Solids	SM2540 C	1	7	$25.00	$25.00
Water	Total Kjeldahl Nitrogen as N	EPA 351.2	1	7	$55.00	$55.00
Water	Total Organic Carbon	SM5310B	1	7	$70.00	$70.00
Water	Total phosphate as P	SM4500 P B, E	1	7	$25.00	$25.00
Water	Total Suspended Solids	SM2540 D	1	7	$25.00	$25.00
Water	Turbidity	SM2130 B	1	7	$20.00	$20.00
Water	Coliform, Total & Fecal	SM 9221 B, E	1	7	$35.00	$35.00
Water	Enterococcus	SM 9230 A, B	1	7	$55.00	$55.00
						$1,635.00

1WEC148

Dan Verdon
Laboratory Director
EnviroMatrix Analytical, Inc.

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☒ Visual ☐ Follow-Up ***Station Class:*** ☒ Field ☐ Removed, _____

Site ID: Warren Crossing	**Latitude:** 33.0030	**Outfall Size:** 48"
Location: Warren Crossing 33.0030 LAT, -117.0057 LONG	**Longitude:** -117.0057	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6)	
Date: May 4, 2019	**Time:** 2:30 pm	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog 76°F

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☒ Yes ☐ No

Flow Rate: 19.35 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5 gal	~~mL~~ gal
Time to Fill	15.5	sec

1 Liter/sec = 15.85 gpm

water temp: 23°C

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☒ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydromodification due to abandoned CMP/blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☒ Other springs ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other _____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No See results

Water Temp (°C)	23°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☒ Follow-Up ***Station Class:*** ☒ Field ☐ Removed,_____

Site ID: Warren Crossing	**Latitude:** 33.0030	**Outfall Size:** 48"
Location: Warren Crossing City of Poway MS4	**Longitude:** -117.0057	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: may 4, 2019	**Time:** 6:35pm	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Fog Air: 65°F

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☒ Yes ☐ No

Flow Rate: 16.21 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5 gal	~~5~~ gal
Time to Fill	18.5	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

water temp: 18.5°C

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☒ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☐ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydromodification due to abandoned CMP/blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☒ Other springs ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No See results attached

Water Temp (°C)	18.5°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☒ Follow-Up ***Station Class:*** ☐ Field ☐ Removed, _____

Site ID: Warren Crossing	**Latitude:** 33.0030	**Outfall Size:** 48"
Location: Warren Crossing Poway, CA	**Longitude:** -117.0057	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: May 5, 2019	**Time:** 6:56 a.m.	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☒ Partly Cloudy ☐ Overcast ☐ Fog Air Temp: 55°F

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☐ Yes ☐ No

Flow Rate: 27.27 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5 gal	~~4~~ gal
Time to Fill	11	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

water temp: 15.9°C

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☒ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☒ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydromodification due to abandoned CMP / blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☒ Other Springs ☐ Unable to Determine

Basis for Source Identification: ☒ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other _____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No see attached results

Water Temp (°C)	15.9°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

City of Poway
Dry Weather Major MS4 Outfall Monitoring Field Datasheet

Visit Type: ☐ Visual ☒ Follow-Up ***Station Class:*** ☒ Field ☐ Removed,_____

Site ID: Warren Crossing	**Latitude:** 33.0030	**Outfall Size:** 48"
Location: Warren Crossing City of Poway MS4	**Longitude:** -117.0057	
	HSA: 905.21	
	Observer(s): Personal Privacy ex. (b)(6) [redacted]	
Date: May 5, 2019	**Time:** 12:25pm	

Conveyance (select only one) ☐ Outlet ☐ Manhole ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel ☐ Other

Atmospheric Conditions

Weather ☐ Clear ☒ Partly Cloudy ☐ Overcast ☐ Fog

Last Rain ☒ > 72 hours ☐ < 72 hours but ≤ 0.1"

Air temp 70°F

Flow

Water Flow ☒ Flowing ☐ Ponded ☐ Dry **Flow reaches receiving water?:** ☒ Yes ☐ No

Flow Rate: 25 ☒ gpm ☐ cfs *Fill in flow rate calculation supporting information below if applicable.* ☐ Unknown

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec

*Flow rate(gpm) = area(ft²)*velocity(ft/sec)*448.8*
*Area = Ta*diameter² (See tabulated values (Ta) chart)*

Filling a Bottle or Known Volume

Volume	5 gal	~~gal~~
Time to Fill	12	sec

1 Liter/sec = 15.85 gpm

Velocity Area Method (Leaf Float)

Width		in
Depth		in
Velocity		ft/sec

*Flow rate(gpm) = width(ft)*depth(ft)*velocity(ft/sec)*448.8*
Use correction factor of 0.5 to 0.9 depending on conveyance surface roughness.

Water temp: 21.8°C

Observations

Odor	☒ None	☐ Sewage	☐ Sulfides	☐ Petroleum	☐ Manure	☐ Other	☐ na (dry)
Color	☐ None	☒ Yellow	☐ Brown	☐ White	☐ Gray	☐ Other	☐ na (dry)
Clarity	☒ Clear	☐ Cloudy (> 4" vis)	☐ Murky (< 4" vis)			☐ Other	☐ na (dry)
Floatables	☒ None	☐ Trash	☐ Bubbles	☐ Foam	☐ Oily Sheen	☐ Other	☐ na (dry)
Deposits	☐ None	☐ Coarse Particulates	☐ Fine Particulates	☐ Stains	☐ Oily Deposits	☒ Other	
Structural Condition (select only one)		☐ Normal	☐ Damaged	☐ Scour Pond	☐ Erosion	☒ Blockage	☐ Other

Trash Assessment

Rating ☐ High (>400 pieces) ☐ Medium (50 to 400 pieces) ☐ Low (<50 pieces) ☒ None

Evidence of Illegal Dumping: ☒ Yes *(describe in comments)* ☐ No **Potential Threat To:** ☐ Human Health ☒ Aquatic Health

Comments: Hydromodification due to abandoned CMP/blockage

Source Identification and Elimination

Evidence of Obvious IC/ID: ☐ Odor ☒ Color ☐ Clarity ☐ Floatables ☐ High Flow ☐ Non-Standard Connection ☐ Other _____ ☐ No

Flow Source: ☒ Groundwater ☐ Seepage ☐ Irrigation Runoff ☐ Vehicle Washing ☐ Wet Cleaning ☐ Construction ☐ na (dry)
☐ Pool or Spa ☐ Water Line Break ☐ NPDES Permitted Discharge ☐ Other_____ ☐ Unable to Determine

Basis for Source Identification: ☐ Observed Discharge ☐ Indirect Evidence ☒ Historical Data ☐ Other_____ ☐ na (Not Determined/Dry)

If Identified, Was Source Eliminated? *(If yes, describe in notes below)* ☐ Yes ☒ No ☐ na (dry)

Source ID/Elimination Notes:

Field Screening Samples Collected? ☒ Yes ☐ No **Analytical Lab Samples Collected?** ☒ Yes ☐ No

Water Temp (°C)	21.8°C	NH3-N (mg/L)		NO3 (mg/L)		Ortho-PO4 (mg/L)	see attached results
pH (pH units)		Turb. (NTU)		NO3-N (mg/L)		Ortho-PO4 -P (mg/L)	
Cond. (mS/cm)		MBAS (mg/L)					

ENTHALPY
ANALYTICAL
TOXICITY LABORATORY & CONSULTING

Chronic Toxicity Testing Results for Personal Privacy ex. (b)(6) [redacted]

Project/Sample ID: Warren Crossing

May 2019

Prepared for: Personal Privacy ex. (b)(6) [redacted]

Prepared by: **Enthalpy Analytical (formerly Nautilus Environmental)**

Submitted: **May 21, 2019**

Data Quality Assurance:

- Nautilus Environmental is accredited in accordance with NELAP by the State of Oregon Environmental Laboratory Accreditation Program (ORELAP ID 4053). It is also certified by the State of California Water Resources Control Board Environmental Laboratory Accreditation Program (Certificate No. 1802) and the State of Washington Department of Ecology (Lab ID C552).
- All data have been reviewed and verified.
- All test results have met minimum test acceptability criteria under their respective EPA protocols, unless otherwise noted in this report.
- All test results have met internal Quality Assurance Program requirements.

Results verified by: _____
Eric Green, Project Manager

California
4340 Vandever Avenue
San Diego, California 92120
858.587.7333
fax: 858.587.3961

Materials & Methods

Table 1. Sample Information

Client:	Personal Privacy [redacted] ex. (b)(6)
Sample ID:	Warren Crossing
Monitoring Period:	May 2019
Sample Collection Dates:	5/5/19, 06:56
Sample Receipt Dates:	5/6/19, 11:10
Sample Method/Material:	Grab sample of ambient water

Table 2. Water Quality Parameters Measured upon Sample Receipt

Sample Date	pH	DO (mg/L)	Temperature (°C)	Salinity (ppt)	Conductivity (µS/cm)	Hardness (mg/L as $CaCO_3$)	Alkalinity (mg/L as $CaCO_3$)	Total Chlorine (mg/L)
5/5/19	7.75	11.3	3.5	0.5	867	168	98	0.02

Table 3. Chronic Green Algae Test Specifications

Test Start:	5/6/19, 14:30
Test End:	5/10/19, 12:00
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source; Age:	In-House Culture; 7 days
Protocol Used:	EPA/821/R-02/013, 2002 Chronic Freshwater Manual
Test Acceptability Criteria:	Mean control density of ≥ 10^6 cells/mL and < 20% variability among control replicates (CV)
Lab Control:	Diluted mineral water (per EPA protocol)
Test Concentrations:	100% sample, plus lab control
Statistical Software:	CETIS™, version 1.8.7.20

Statistical Analysis

Chronic toxicity test biological endpoint data were analyzed using the Test of Significant Toxicity (TST) t-test approach specified in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (USEPA 2010). Organism performance in the sample was compared to that observed in the concurrent laboratory control exposure. The TST calculation applies a modified t-test that takes into account both the statistical power of the test and magnitude of biological effects in determining the presence of a response. Results are reported as "Pass" if a sample is considered non-toxic according to the TST calculation, or "Fail" if considered toxic according to TST. The TST analysis was performed using the Comprehensive Environmental Toxicity Information System™ (CETIS) by Tidepool Scientific Software.

Results

No significant effects were observed as compared to the lab control, and the Warren Crossing sample resulted in a "Pass" using the TST calculation for the green algae test. Test data and statistical results are summarized in Table 4. Raw data and statistical analyses for all testing can be found in Appendix A. Sample receipt information and chain of custody forms are in Appendices B and C, respectively.

Table 4. Summary of Statistical Results – Warren Crossing

Species and Endpoint	Lab Control	100% Sample	Percent Effect	TST (Pass/Fail)
Green Algae Cell Density (10^6 cells/mL)	2.81	3.20	- 14	Pass

Percent Effect = ((Mean Lab Control Response – Mean Sample Response)/Mean Lab Control Response)*100. A negative value indicates better organism performance in the sample compared to that in the control.

TST: Pass = sample is non-toxic according to the TST calculation; Fail = sample is toxic according to the TST calculation

Quality Assurance

The sample was received the day after collection and within the appropriate temperature range, and the test was initiated within 36-hours from sample collection. The mean control response met the minimum test acceptability criteria. Appropriate threshold effect and alpha levels were used for statistical analyses according to TST Implementation Document guidelines (EPA 2010). A list of data qualifier codes can be found in Appendix D.

Reference Toxicant

Results for reference toxicant testing used to monitor laboratory performance and test organism sensitivity are summarized in Table 5. Median effect concentration values were within two standard deviations of the historical mean, indicating typical organism sensitivity to copper for our laboratory. Reference toxicant test control charts are presented in Appendix E.

Table 5. Summary of Statistical Results for Reference Toxicant Tests

Species and Endpoint	$EC/IC/LC_{50}$ (µg/L copper)	Historical $EC/IC/LC_{50} \pm 2$ SD (µg/L copper)
Green Algae Cell Density	53.2	56.1 ± 4.64

NOEC = The highest Concentration tested that results in No Observed Effect

$EC/IC/LC_{50}$ = The concentration expected to a cause an adverse/inhibition/lethal effect to 50 percent of the test organisms.

Historical $EC/IC/LC_{50} \pm 2$ SD = The mean $EC/IC/LC_{50}$ from the previous 20 tests performed by Nautilus, plus or minus two standard deviations (SD)

References

Tidepool Scientific Software. 2000-2013. CETIS Comprehensive Environmental Toxicity Information System Software, Version 1.8.7.20.

USEPA. 2002. Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA/821/R-02/013. October 2002.

USEPA. 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. EPA/833/R-10/003. June 2010.

Appendix A

Test Data and Statistical Analyses

CETIS Summary Report

Report Date: 15 May-19 10:41 (p 1 of 1)
Test Code: 18045D97 | ~~04-0293-9287~~ 1765-507 (B)

Selenastrum Growth Test — Nautilus Environmental (CA)

Batch ID:	19-2391-9758	**Test Type:**	Cell Growth	**Analyst:**	
Start Date:	06 May-19 14:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Not Applicable
Ending Date:	10 May-19 12:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Duration:	94h	**Source:**	In-House Culture	**Age:**	7d

Sample ID:	02-4112-6983	**Code:**	19-0542	**Client:**	[redacted] Personal Privacy ex. (b)(6)
Sample Date:	05 May-19 06:56	**Material:** *	~~Effluent Sample~~ Ambient Water	**Project:**	
Receive Date:	06 May-19 11:10	**Source:**	Warren Crossing ([redacted] Personal Privacy (b)(6)		
Sample Age:	32h (3.5 °C)	**Station:**	Warren Crossing		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
09-0915-1229	Cell Density	100	>100	NA	1.0%	1	TST-Welch's t Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
09-0915-1229	Cell Density	Control CV	0.01165	NL - 0.2	Yes	Passes Acceptability Criteria
09-0915-1229	Cell Density	Control Resp	2.81E+6	1.00E+6 - NL	Yes	Passes Acceptability Criteria
09-0915-1229	Cell Density	PMSD	0.009999	0.091 - 0.29	Yes	Below Acceptability Criteria (A)

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	4	2.809E+6	2.757E+6	2.861E+6	2.763E+6	2.838E+6	1.636E+4	3.272E+4	1.17%	0.0%
100		4	3.201E+6	3.091E+6	3.311E+6	3.114E+6	3.264E+6	3.461E+4	6.921E+4	2.16%	-13.97%

Cell Density Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Lab Control	2.838E+6	2.763E+6	2.825E+6	2.809E+6
100		3.264E+6	3.249E+6	3.114E+6	3.178E+6

(A) PMSD criteria does not apply to TST analysis
(B) EG Q18 5/17/19
* Q18 AC 5/21/19

CETIS Analytical Report

Report Date: 15 May-19 10:41 (p 1 of 1)
Test Code: 18045D97 | ~~04-0293-9287~~ 1905-3074

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Analysis ID:	09-0915-1229	**Endpoint:**	Cell Density	**CETIS Version:**	CETISv1.8.7
Analyzed:	15 May-19 10:41	**Analysis:**	Parametric Bioequivalence-Two Sample	**Official Results:**	Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Untransformed	NA	C*b < T	NA	NA	0.75	1.0%	Passes cell density

TST-Welch's t Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:25%)
Lab Control		100*	29.81	0.7649	28080	3	<0.0001	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.081125E+11	3.081125E+11	1	105.1	<0.0001	Significant Effect
Error	17583500000	2930583000	6			
Total	3.25696E+11		7			

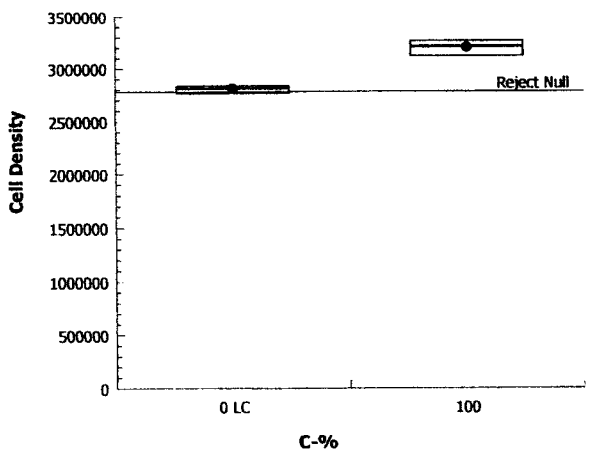
Distributional Tests

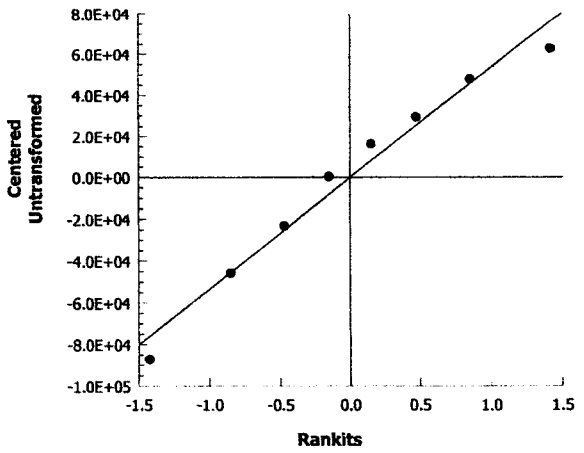
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.473	47.47	0.2501	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9675	0.6451	0.8777	Normal Distribution

Cell Density Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	4	2.809E+6	2.757E+6	2.861E+6	2817000	2.763E+6	2.838E+6	1.636E+4	1.17%	0.0%
100		4	3.201E+6	3.091E+6	3.311E+6	3214000	3.114E+6	3.264E+6	3.461E+4	2.16%	-13.97%

Graphics





Ⓐ EG 9:18 5/17/19

Fluorometric & Microscopic Determination of Cell Density
Turner Fluorometer Model TD-700

Test Species: *S. capricornutum*

Client : Personal Privacy ex. (b)(6) [redacted]

Start Date/Time: 5/6/2019 1430

Sample ID: Warren Crossing

End Date/Time: 5/10/2019 1200

Test No: 1905-S074

Analyst: BO

Random Number	Cell Density (fluorometric) (cells/ml *10^5)	Dilution	Cell Density (microscopic) (cells/ml *10^4)
Cal Check 1 (DI, Solid)	0.00, 1.44		
1	31.14		
2	32.64		
3	28.25		
4	31.78		
5	32.49		
6	28.09		
7	28.38		
8	27.63		
Cal Check 2 (DI, Solid)			
100% filtered blank	0.00		

Comments:

QC Check: EG 5/17/19

Final Review: AC 5/21/19

CETIS Test Data Worksheet

Report Date: 06 May-19 09:18 (p 1 of 1)
Test Code: 1905-5074 04-0293-9287/18045D97

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Start Date:	06 May-19	**Species:**	Selenastrum capricornutum	**Sample Code:**	19-0542
End Date:	10 May-19	**Protocol:**	EPA/821/R-02-013 (2002)	**Sample Source:**	Warren Crossing
Sample Date:	05 May-19	**Material:**	~~Effluent Sample~~ Ambient water	**Sample Station:**	Warren Crossing

C-%	Code	Rep	Pos	Cell Density	Absorbance	Biomass	Chlorophyll a	Notes
0	LC	1	7					
0	LC	2	8					
0	LC	3	3					
0	LC	4	6					
100		1	2					
100		2	5					
100		3	1					
100		4	4					

QC: ACS

(B) EG QC 5/17/19

(A) QC ACS 5/6/19

Freshwater Chronic Bioassay

Water Quality Measurements
Algal Growth Inhibition

Client : Personal Privacy ex. (b)(6) [redacted]

Test Species: *S. capricornutum*

Sample ID: Warren Crossing

Start Date/Time: 5/6/2019 1430

Sample Log No.: 19- 0542

End Date/Time: 5/10/2019 1200

Dilutions made by: ACS

Test No: 1905-S074

Concentration (%)	Initial Readings D.O. (mg/L)	Initial Readings Conductivity (umhos-cm)	Initial Readings Alkalinity (mg/L)	Initial Readings Hardness (mg/L)	Final Readings D.O. (mg/L)	Final Readings Conductivity (umhos-cm)
Lab Control	6.0	261	85	109	10.1	158
100	6.3	952	120	203	10.6	960

		0 Hour	24 Hour Qc	48 Hour	72 Hour	96 Hour
pH/Temperature (°C):	LC	8.29 / ~~24.1~~ 25.2 (A)	8.44 / 25.6	8.73 / 24.3	9.24 / 24.1	9.67 / 24.3
pH/Temperature (°C):	100	8.06 / 24.9	8.42 / 26.2	8.73 / 24.6	9.35 / 24.3	9.76 / 24.6
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
pH/Temperature (°C):		/	/	/	/	/
	Technician:	A/S	DM	JBS	JBS	BO

Comments: (A) Q18 A/S 5/6/19

QC Check: EG 5/17/19

Final Review: AC 5/21/19

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Freshwater Chronic Bioassay **Algal Growth Inhibition Worksheet**

Client/Sample ID : Personal Privacy ex. (b)(6) Warren Crossing **Test Species:** *S. capricornutum*

Test No: 1905-5074 **Start Date/Time:** 5/6/2019 1430

Analyst: ACS **End Date/Time:** 5/10/2019 1200

Date Stock Culture Started: 4/29/19 Culture Age: 7d

Culture subsample inspected for algal cell health? ACS (initials) bacteria/invasive algal species present? Y (N)

Stock Cell Density Measurements: 36.02, 35.17, 35.39, 35.74, 36.40 Mean: 35.74

(mean no. * 100,000)/(500,000) = x (dilution factor): 7.15

Prepare inoculum according to the dilution factor. This yields a solution with the desired cell density of 500,000 cells/ml.

dil. factor 7.15

-1.0 part Sele stock = 10 mL

6.15 part(s) NEW = 61.5 mL

Inoculate 1 ml into 3 initial count flasks containing 50 ml of NEW, stir and count on the hemacytometer. Flasks should contain a final density of 10,000 cells/ml ± 10%.

Inoculum Cell Density Confirmation Counts: 1, 0, 2 Mean: 1

Location in Environmental Chamber (All replicates in each test must be on the same shelf; do not split up tests among shelves):

Shelf Number	Measured Light Intensity Range (must be between 360 and 440 ft-c)	Random Number Range
1		
2	367-434	1-8
3		
4		
5		
6		

Are lights on 24 hour cycle? (Y) / N

Comments:

QC Check: EG 5/17/19 Final Review: ACS 5/21/19

Appendix B

Sample Receipt Information

Nautilus Environmental
4340 Vandever Avenue
San Diego, CA 92120

Client: Personal Privacy ex. (b) (6)
Sample ID: Warren Crossing
Test ID No(s).: 1905 - 5074

Sample (A, B, C):	A			
Log-in No. (19-xxxx):	0542			
Sample Collection Date & Time:	5/5/19 0656			
Sample Receipt Date & Time:	5/6/19 1110			
Number of Containers & Container Type:	1 4C cube			
Approx. Total Volume Received (L):	~4 L			
Check-in Temperature (°C)	3.5			
Temperature OK? [1]	(Y) N	Y N	Y N	Y N
DO (mg/L)	11.3			
pH (units)	7.75			
Conductivity (µS/cm)	867			
Salinity (ppt)	0.5			
Alkalinity (mg/L) [2]	98			
Hardness (mg/L) [2,3]	168			
Total Chlorine (mg/L)	0.02			
Technician Initials	ACS			

Test Performed: Chronic Green Algae (selenastrum) Control/Dilution Water: (8:2) / Lab SW / Lab ART Other: _____
Alkalinity: 90 Hardness or Salinity: 91
Additional Control? Y (N) = _____ Alkalinity: _____ Hardness or Salinity: _____

Test Performed: _____ Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: _____
Alkalinity: _____ Hardness or Salinity: _____
Additional Control? Y N = _____ Alkalinity: _____ Hardness or Salinity: _____

Test Performed: _____ Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: _____
Alkalinity: _____ Hardness or Salinity: _____
Additional Control? Y N = _____ Alkalinity: _____ Hardness or Salinity: _____

Notes: [1] Temperature of sample should be 0-6°C, if received more than 24 hours past collection time.
[2] mg/L as CaCO3, [3] Measured for freshwater samples only, NA = Not Applicable

Additional Comments: (A) Qlq ACS 5/6/19

Sample Check-In Information

Sample Description:
(A) ~~Colorless~~ clear, odorless, no debris
Light yellow

COC Complete (Y/N)?
A Y B___ C___

Filtration? (Y) N
Pore Size: 0.45µm
(Organisms) or Debris

Salinity Adjustment? Y (N)
Test: Source: Target ppt:
Test: Source: Target ppt:
Test: Source: Target ppt:

pH Adjustment? Y (N)

	A	B	C
Initial pH:			
Amount of HCl added:			
Final pH:			

Cl_2 Adjustment? Y (N)

	A	B	C
Initial Free Cl_2:			
STS added:			
Final Free Cl_2:			

Sample Aeration? Y (N)

	A	B	C
Initial D.O.			
Duration & Rate			
Final D.O.			

Subsamples for Additional Chemistry Required? Y (N)
NH3 Other _____
Tech Initials A___ B___ C___

QC Check: EG 5/17/19
Final Review: AC 5/21/19

Appendix C

Chain-of-Custody Forms

Enthalpy Analytical - Environmental Toxicology

4340 Vandever Avenue
San Diego, CA 92120
Phone 858.587.7333
infoSD@enthalpy.com

Chain of Custody

Date_____ Page___ of ___

Sample Collection By:

Report to:
Company: Personal Privacy ex. (b)
Address: Personal Privacy ex. (b)(6)
City/State/Zip: [redacted]
Contact: Personal Privacy ex. (b)(6)
Phone: Personal Privacy ex. (b)
Email: Personal Privacy ex. (b)

Invoice To: Same as Report to ☒
Company
Address
City/State/Zip
Contact
Phone
Email

	SAMPLE ID	SAMPLE Date	SAMPLE Time	SAMPLE Type (G or C)	MATRIX CODE (FW, SW, Sed, STRM, GW, WW, O)	Container Type	Container Qtr	COMMENTS	Green Algae EPA-821-R-02-013 1003.0						Receipt Temperature (°C)
1	Warren Crossing	5/5/19	6:56am	G	FW				X						3.5
2															
3															
4															
5															
6															
7															
8															
9															
10															

ANALYSES REQUIRED

Nautilus Matrix Codes:
G = Grab
C = Composite
FW = Freshwater
SW = Seawater
Sed = Sediment
STRM = Stormwater
GW = Groundwater
WW = Wastewater
O = Other (specify)

PROJECT INFORMATION		SAMPLE RECEIPT	
Project Name:		Total No. of Containers	1
PO No.:		Received Good Condition?	Y
Shipped Via:		Matches Test Schedule?	Y

1) RELINQUISHED BY (CLIENT)
(Signature) (Time) 11:10
(Printed Name) (Date) 5/6/19
(Company) Personal Privacy (b)(6)

2) RECEIVED BY (COURIER)
(Signature) (Time)
(Printed Name) (Date)
(Company)

3) RELINQUISHED BY (COURIER)
(Signature) (Time)
(Printed Name) (Date)
(Company)

4) RECEIVED BY (LABORATORY)
(Signature) (Time) 1110
(Printed Name) Amanda Sego (Date) ~~5/7/19~~ 5/6/19
(Company) Nautilus (Log-in #s) 190542

SPECIAL INSTRUCTIONS/COMMENTS:

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.
Shaded areas are for lab use only
Report turn-around-time varies depending on length of test; please inquire with your project manager.

http://enthalpy.com/environmental-toxicology-2/

Appendix D

List of Qualifier Codes

Nautilus Environmental

Glossary of Qualifier Codes:

Q1 - Temperatures out of recommended range; corrective action taken and recorded in Test Temperature Correction Log

Q2 - Temperatures out of recommended range; no action taken, test terminated same day

Q3 - Sample aerated prior to initiation or renewal due to dissolved oxygen (D.O.) levels below 6.0 mg/L

Q4 - Test aerated; D.O. levels dropped below 4.0 mg/L

Q5 - Test initiated with aeration due to an anticipated drop in D.O.

Q6 - Airline obstructed or fell out of replicate and replaced; drop in D.O. occurred

Q7 - Salinity out of recommended range

Q8 - Spilled test chamber/ Unable to recover test organism(s)

Q9 - Inadequate sample volume remaining, 50% renewal performed

Q10 - Inadequate sample volume remaining, no renewal performed

Q11 - Sample out of holding time; refer to QA section of report

Q12 - Replicate(s) not initiated; excluded from data analysis

Q13 - Survival counts not recorded due to poor visibility or heavy debris

Q14 - D.O. percent saturation was checked and was ≤ 110%

Q15 - Did not meet minimum test acceptability criteria. Refer to QA section of report.

Q16 - Percent minimum significant difference (PMSD) was below the lower bound limit for acceptability. This indicates that statistics may be over-sensitive in detecting a difference from the control due to low variability in the data set.

Q17 - Percent minimum significant difference (PMSD) was above the upper bound limit for acceptability. This indicates that statistics may be under-sensitive in detecting a difference from the control due to high variability in the data set.

Q18 - Incorrect Entry

Q19 - Illegible Entry

Q20 - Miscalculation

Q21 - Other (provide reason in comments section)

Q22 - Greater than 10% mortality observed upon receipt and/or in holding prior to test initiation. Organisms acclimated to test conditions at Nautilus and ultimately deemed fit to use for testing.

Q23 - Test organisms received at a temperature greater than 3°C outside the recommended test temperature range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

Q24 - Test organisms received at salinity greater than 3 ppt outside of the recommended test salinity range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

Appendix E

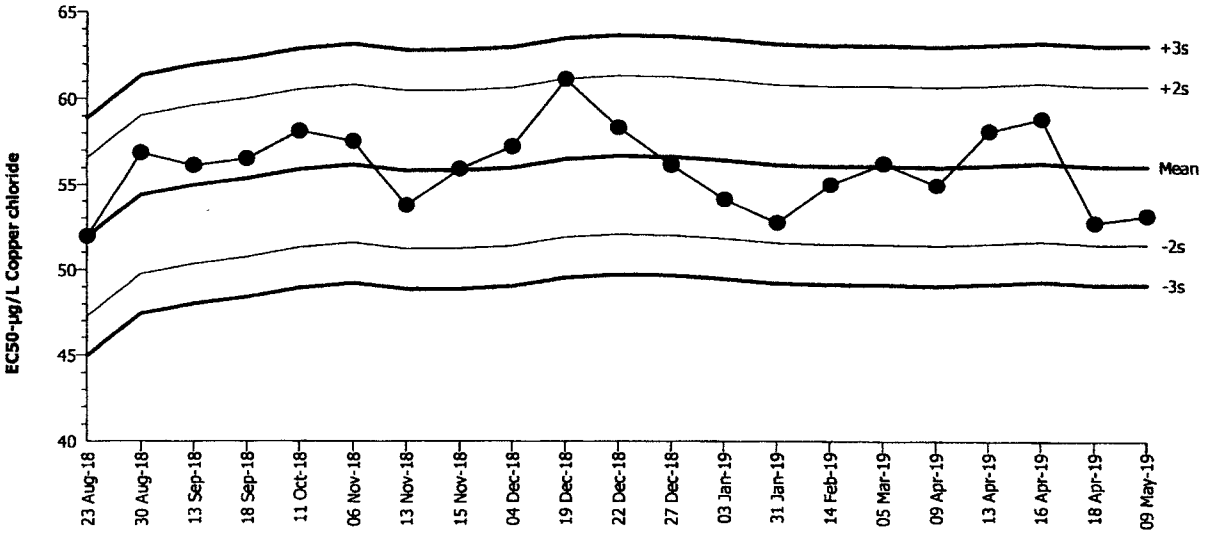
Reference Toxicant Test Control Charts

CETIS QC Plot

Report Date: 17 May-19 15:39 (1 of 1)

Selenastrum Growth Test — **Nautilus Environmental (CA)**

Test Type:	Cell Growth	**Organism:**	Selenastrum capricornutum (Green	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Cell Density	**Source:**	Reference Toxicant-REF



Mean:	56.12	**Count:**	20	**-2s Warning Limit:**	51.48	**-3s Action Limit:**	49.16
Sigma:	2.318	**CV:**	4.13%	**+2s Warning Limit:**	60.75	**+3s Action Limit:**	63.07

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Aug	23	15:30	51.93	-4.194	-1.809			21-2359-0680	07-4325-3393
2			30	16:05	56.86	0.7389	0.3188			19-9381-5869	12-3846-5486
3		Sep	13	16:30	56.13	0.00649	0.0028			00-3053-3379	03-3737-5400
4			18	15:15	56.51	0.3905	0.1685			05-1115-3587	04-3271-6668
5		Oct	11	16:10	58.11	1.993	0.8596			03-3415-8156	05-2201-8982
6		Nov	6	15:30	57.52	1.402	0.6049			03-7553-2553	03-4182-4667
7			13	15:00	53.74	-2.38	-1.027			03-9768-1203	07-8008-9774
8			15	16:40	55.92	-0.2024	-0.08733			06-8931-3427	12-3853-4475
9		Dec	4	14:10	57.22	1.102	0.4755			00-0483-6227	13-5549-1501
10			19	17:00	61.13	5.007	2.16	(+)		08-3870-7478	16-8390-9845
11			22	14:15	58.32	2.196	0.9472			04-7696-6642	17-5905-4894
12			27	14:50	56.17	0.04545	0.01961			16-5565-1289	00-1111-8555
13	2019	Jan	3	15:45	54.11	-2.011	-0.8677			04-5724-4293	11-1515-1192
14			31	14:20	52.75	-3.371	-1.454			12-8664-4980	00-5339-0124
15		Feb	14	14:30	55	-1.123	-0.4844			05-3618-7587	06-0786-7087
16		Mar	5	15:20	56.25	0.1341	0.05786			01-3543-5496	01-5642-3620
17		Apr	9	15:30	54.95	-1.171	-0.5052			06-9176-4833	02-6283-1789
18			13	14:55	58.14	2.021	0.8719			11-9772-1410	16-5961-3657
19			16	15:45	58.88	2.756	1.189			02-9435-9993	02-5249-5166
20			18	15:15	52.75	-3.365	-1.452			20-1977-1834	09-3407-7538
21		May	9	16:50	53.17	-2.947	-1.271			02-3204-1631	13-4201-0502

EnviroMatrix Analytical, Inc.

19 April 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19D0437

Project Name: April 10, 2019

Enclosed are the results of analyses for samples received by the laboratory on 04/10/19 16:13. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 10, 2019

EMA Log #: 19D0437

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Kelly Spring Composite 32.9989 LAT -116.9756 LONG	19D0437-01	Drinking Water	04/10/19 11:09	04/10/19 16:13

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 10, 2019

EMA Log #: 19D0437

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring Composite 32.9989 LAT -116.9756 LONG (19D0437-01) Drinking Water Sampled: 04/10/19 11:09 Received: 04/10/19 16:13									
Iron	**0.772**	0.050	mg/l	1	9041728	04/17/19	04/18/19	EPA 200.8	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0437

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring Composite 32.9989 LAT -116.9756 LONG (19D0437-01) Drinking Water Sampled: 04/10/19 11:09 Received: 04/10/19 16:13									
Specific Conductance (EC)	**427**	1.00	umhos/cm	1	9041132	04/11/19	04/11/19	SM2510 B	
Dissolved Oxygen	**9.28**	0.10	mg/l	"	9041243	04/10/19	04/10/19	SM4500-O G	HT-15
pH at 25 deg C	**7.19**	0.10	pH Units	"	9041224	04/10/19	04/10/19	SM4500-H+ B	HT-15
Phosphorus, Total	**0.24**	0.05	mg/l	"	9041723	04/18/19	04/18/19	SM4500 P B, E	
Turbidity	**9.00**	0.05	NTU	"	9041271	04/11/19	04/11/19	SM2130 B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)
Project Name: April 10, 2019

EMA Log #: 19D0437

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Blank (9041728-BLK1)				Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	ND	0.050	mg/l							
LCS (9041728-BS1)				Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.057	0.050	mg/l	0.0500		114	85-115			
LCS Dup (9041728-BSD1)				Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.054	0.050	mg/l	0.0500		108	85-115	5	20	
Duplicate (9041728-DUP1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.247	0.050	mg/l		0.248			0.2	20	
Matrix Spike (9041728-MS1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.287	0.050	mg/l	0.0500	0.248	80	70-130			
Matrix Spike (9041728-MS2)		**Source: 19D0475-03**		Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.062	0.050	mg/l	0.0500	0.009	106	70-130			
Matrix Spike Dup (9041728-MSD1)		**Source: 19D0527-02**		Prepared: 04/17/19	Analyzed: 04/18/19					
Iron	0.312	0.050	mg/l	0.0500	0.248	129	70-130	8	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0437

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041132										
Duplicate (9041132-DUP1)		**Source: 19D0438-01**		Prepared & Analyzed: 04/11/19						
Specific Conductance (EC)	826	1.00	umhos/cm		826			0	20	
Reference (9041132-SRM1)				Prepared & Analyzed: 04/11/19						
Specific Conductance (EC)	435	1.00	umhos/cm	429		101	90-110			
Batch 9041224										
Duplicate (9041224-DUP1)		**Source: 19D0381-01**		Prepared & Analyzed: 04/10/19						
pH at 25 deg C	6.64	0.10	pH Units		6.61			0.5	20	
Reference (9041224-SRM1)				Prepared & Analyzed: 04/10/19						
pH at 25 deg C	5.84	0.10	pH Units	5.83		100	6.57-103.4			
Batch 9041243										
Duplicate (9041243-DUP1)		**Source: 19D0437-01**		Prepared & Analyzed: 04/10/19						
Dissolved Oxygen	9.24	0.10	mg/l		9.28			0.4	20	
Duplicate (9041243-DUP2)		**Source: 19D0438-01**		Prepared & Analyzed: 04/10/19						
Dissolved Oxygen	9.35	0.10	mg/l		9.31			0.4	20	
Batch 9041271										
Blank (9041271-BLK1)				Prepared & Analyzed: 04/11/19						
Turbidity	ND	0.05	NTU							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)
Project Name: April 10, 2019

EMA Log #: 19D0437

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041271										
Duplicate (9041271-DUP1)		**Source: 19D0425-01**		Prepared & Analyzed: 04/11/19						
Turbidity	0.10	0.05	NTU		0.10			0	20	
Reference (9041271-SRM1)				Prepared & Analyzed: 04/11/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9041723										
Blank (9041723-BLK1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9041723-BS1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120			
LCS Dup (9041723-BSD1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120	0.4	20	
Duplicate (9041723-DUP1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l		ND				20	
Matrix Spike (9041723-MS1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	103	80-120			
Matrix Spike Dup (9041723-MSD1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	101	80-120	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0437

Notes and Definitions

HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

19D0437

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: [redacted]

Attn:

Samplers(s): [redacted]

Address: [redacted]

Phone: [redacted] Fax:

Email: [redacted]

Billing Address: [redacted]

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □TDS	□ Nitrate □ Nitrite □ TKN □NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Collert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Specific conductivity	dissolved oxygen	turbidity	Fe	Total Phos
1	[redacted] Composite													X										X	X	X	X	X
2																												
3	4/9/19 - 4/10/19 - DATES																											
4																												
5	32.9989 LAT																											
6	-116.9756 LONG																											
7	4/9 2:00pm - Times																											
8	5:15pm																											
9	7:30pm																											
10	4/10 11:09 a.m																											

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: ☒ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☒ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preserved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 5°C on ice

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature	4-10-19 16:13	Signature
Print [redacted]		Print Amanda Walsh
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments:

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

19 April 2019

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

EMA Log #: 19D0438

Project Name: April 10, 2019

Enclosed are the results of analyses for samples received by the laboratory on 04/10/19 16:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0438

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fishman Footbridge Composite 33.0039 LAT -117.0070 LONG	19D0438-01	Drinking Water	04/10/19 14:00	04/10/19 16:15

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0438

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fishman Footbridge Composite 33.0039 LAT -117.0070 LONG (19D0438-01) Drinking Water Sampled: 04/10/19 14:00 Received: 04/10/19 16:									
Iron	**0.118**	0.050	mg/l	1	9041728	04/17/19	04/18/19	EPA 200.8	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 10, 2019

EMA Log #: 19D0438

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fishman Footbridge Composite 33.0039 LAT -117.0070 LONG (19D0438-01) Drinking Water Sampled: 04/10/19 14:00 Received: 04/10/19 16:									
Specific Conductance (EC)	**826**	1.00	umhos/cm	1	9041132	04/11/19	04/11/19	SM2510 B	
Dissolved Oxygen	**9.31**	0.10	mg/l	"	9041243	04/10/19	04/10/19	SM4500-O G	HT-15
pH at 25 deg C	**7.80**	0.10	pH Units	"	9041224	04/10/19	04/10/19	SM4500-H+ B	HT-15
Phosphorus, Total	**0.23**	0.05	mg/l	"	9041723	04/18/19	04/18/19	SM4500 P B, E	
Turbidity	**2.00**	0.05	NTU	"	9041271	04/11/19	04/11/19	SM2130 B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0438

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041728										
Blank (9041728-BLK1)				Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	ND	0.050	mg/l							
LCS (9041728-BS1)				Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.057	0.050	mg/l	0.0500		114	85-115			
LCS Dup (9041728-BSD1)				Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.054	0.050	mg/l	0.0500		108	85-115	5	20	
Duplicate (9041728-DUP1)		**Source: 19D0527-02**		Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.247	0.050	mg/l		0.248			0.2	20	
Matrix Spike (9041728-MS1)		**Source: 19D0527-02**		Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.287	0.050	mg/l	0.0500	0.248	80	70-130			
Matrix Spike (9041728-MS2)		**Source: 19D0475-03**		Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.062	0.050	mg/l	0.0500	0.009	106	70-130			
Matrix Spike Dup (9041728-MSD1)		**Source: 19D0527-02**		Prepared: 04/17/19		Analyzed: 04/18/19				
Iron	0.312	0.050	mg/l	0.0500	0.248	129	70-130	8	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 10, 2019

EMA Log #: 19D0438

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041132										
Duplicate (9041132-DUP1)		**Source: 19D0438-01**		Prepared & Analyzed: 04/11/19						
Specific Conductance (EC)	826	1.00	umhos/cm		826			0	20	
Reference (9041132-SRM1)				Prepared & Analyzed: 04/11/19						
Specific Conductance (EC)	435	1.00	umhos/cm	429		101	90-110			
Batch 9041224										
Duplicate (9041224-DUP1)		**Source: 19D0381-01**		Prepared & Analyzed: 04/10/19						
pH at 25 deg C	6.64	0.10	pH Units		6.61			0.5	20	
Reference (9041224-SRM1)				Prepared & Analyzed: 04/10/19						
pH at 25 deg C	5.84	0.10	pH Units	5.83		100	6.57-103.4			
Batch 9041243										
Duplicate (9041243-DUP1)		**Source: 19D0437-01**		Prepared & Analyzed: 04/10/19						
Dissolved Oxygen	9.24	0.10	mg/l		9.28			0.4	20	
Duplicate (9041243-DUP2)		**Source: 19D0438-01**		Prepared & Analyzed: 04/10/19						
Dissolved Oxygen	9.35	0.10	mg/l		9.31			0.4	20	
Batch 9041271										
Blank (9041271-BLK1)				Prepared & Analyzed: 04/11/19						
Turbidity	ND	0.05	NTU							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 10, 2019

EMA Log #: 19D0438

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9041271										
Duplicate (9041271-DUP1)		**Source: 19D0425-01**		Prepared & Analyzed: 04/11/19						
Turbidity	0.10	0.05	NTU		0.10			0	20	
Reference (9041271-SRM1)				Prepared & Analyzed: 04/11/19						
Turbidity	6.00	0.05	NTU	5.97		101	85-112			
Batch 9041723										
Blank (9041723-BLK1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9041723-BS1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120			
LCS Dup (9041723-BSD1)				Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.52	0.05	mg/l	0.500		105	80-120	0.4	20	
Duplicate (9041723-DUP1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	ND	0.05	mg/l		ND				20	
Matrix Spike (9041723-MS1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	103	80-120			
Matrix Spike Dup (9041723-MSD1)		**Source: 19D0376-04**		Prepared & Analyzed: 04/18/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500	ND	101	80-120	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]	**EMA Log #: 19D0438**
Project Name: April 10, 2019	

Notes and Definitions

HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

19D0438

CHAIN-OF-CUSTODY RECORD

– EnviroMatrix Analytical, Inc. –

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6)

Attn:

Samplers(s): Personal Privacy ex. (b)(6)

Address: Personal Privacy ex. (b)(6)

Phone: Personal Privacy ex. (b)(6) Fax:

Email: Personal Privacy ex. (b)(6)

Billing Ad Personal Privacy ex. (b)(6)

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ TKN □NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Specific Conductivity	dissolved oxygen	turbidity	Fe	Total Phos
1	Fishermen Footbridge			DW										X										X	X	X	X	X
2	Composite																											
3																												
4	33.0039 LAT																											
5	-117.0070 LONG																											
6	Dates: 4/9/19 - 4/10/19																											
7	Times: 5:56 pm, 6:46 pm;																											
8	4/10 10:10 a.m; 2:00 pm																											
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: ~~□ Courier~~ □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** ☒ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☒ Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A
Containers Properly Preserved: Yes No N/A
Custody Seals Intact: Yes No ~~N/A~~
Temp @ Receipt: 2° on ice
COC/Labels Agree: Yes No N/A
Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature	4/10/19 4:15 pm	Signature
Print: Personal Privacy ex. (b)(6)		Print: Jonathan Vaughet
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments:

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

11 April 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19D0115

Project Name: April 2, 2019

Enclosed are the results of analyses for samples received by the laboratory on 04/02/19 14:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 2, 2019

EMA Log #: 19D0115

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fisherman's Footbridge 33.0039 LAT -117.0069 LONG	19D0115-01	Drinking Water	04/02/19 10:36	04/02/19 14:00
Warren Crossing 33.0030 LAT -117.0057 LONG	19D0115-02	Drinking Water	04/02/19 10:57	04/02/19 14:00

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 2, 2019

EMA Log #: 19D0115

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fisherman's Footbridge 33.0039 LAT -117.0069 LONG (19D0115-01) Drinking Water Sampled: 04/02/19 10:36 Received: 04/02/19 14:00									
Iron	**0.171**	0.050	mg/l	1	9040944	04/09/19	04/10/19	EPA 200.8	
Mercury	ND	0.0001	"	"	9040518	04/05/19	04/05/19	EPA 245.1	
Manganese	**0.022**	0.005	"	"	9040944	04/09/19	04/10/19	EPA 200.8	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 2, 2019

EMA Log #: 19D0115

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT -117.0057 LONG (19D0115-02) Drinking Water Sampled: 04/02/19 10:57 Received: 04/02/19 14:00									
Phosphorus, Total	**0.17**	0.05	mg/l	1	9040441	04/05/19	04/05/19	SM4500 P B, E	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: April 2, 2019

EMA Log #: 19D0115

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040518										
Blank (9040518-BLK1)				Prepared & Analyzed: 04/05/19						
Mercury	ND	0.0001	mg/l							
LCS (9040518-BS1)				Prepared & Analyzed: 04/05/19						
Mercury	0.002	0.0001	mg/l	0.00200		97	75-125			
LCS Dup (9040518-BSD1)				Prepared & Analyzed: 04/05/19						
Mercury	0.002	0.0001	mg/l	0.00200		98	75-125	0.7	20	
Duplicate (9040518-DUP1)		**Source: 19D0055-01**		Prepared & Analyzed: 04/05/19						
Mercury	ND	0.0001	mg/l		ND				20	
Matrix Spike (9040518-MS1)		**Source: 19D0055-01**		Prepared & Analyzed: 04/05/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	101	75-125			
Matrix Spike Dup (9040518-MSD1)		**Source: 19D0055-01**		Prepared & Analyzed: 04/05/19						
Mercury	0.002	0.0001	mg/l	0.00200	ND	100	75-125	2	20	
Batch 9040944										
Blank (9040944-BLK1)				Prepared: 04/09/19 Analyzed: 04/10/19						
Iron	ND	0.050	mg/l							
Manganese	ND	0.005	"							
LCS (9040944-BS1)				Prepared: 04/09/19 Analyzed: 04/10/19						
Manganese	0.103	0.005	mg/l	0.100		103	85-115			
Iron	0.105	0.050	"	0.100		105	85-115			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 2, 2019

EMA Log #: 19D0115

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040944										
LCS Dup (9040944-BSD1)				Prepared: 04/09/19		Analyzed: 04/10/19				
Manganese	0.103	0.005	mg/l	0.100		103	85-115	0.3	20	
Iron	0.105	0.050	"	0.100		105	85-115	0.09	20	
Duplicate (9040944-DUP1)		**Source: 19D0131-03**		Prepared: 04/09/19		Analyzed: 04/10/19				
Iron	1.04	0.050	mg/l		0.960			8	20	
Manganese	0.022	0.005	"		0.027			22	20	QR-02
Matrix Spike (9040944-MS1)		**Source: 19D0131-03**		Prepared: 04/09/19		Analyzed: 04/10/19				
Iron	1.10	0.050	mg/l	0.100	0.960	138	70-130			QM-4X
Manganese	0.125	0.005	"	0.100	0.027	98	70-130			
Matrix Spike (9040944-MS2)		**Source: 19C0958-02**		Prepared: 04/09/19		Analyzed: 04/10/19				
Iron	0.281	0.050	mg/l	0.100	0.184	96	70-130			
Manganese	0.120	0.005	"	0.100	0.006	114	70-130			
Matrix Spike Dup (9040944-MSD1)		**Source: 19D0131-03**		Prepared: 04/09/19		Analyzed: 04/10/19				
Manganese	0.123	0.005	mg/l	0.100	0.027	96	70-130	2	20	
Iron	1.03	0.050	"	0.100	0.960	71	70-130	6	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 2, 2019

EMA Log #: 19D0115

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040441										
Blank (9040441-BLK1)				Prepared & Analyzed: 04/05/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9040441-BS1)				Prepared & Analyzed: 04/05/19						
Phosphorus, Total	0.50	0.05	mg/l	0.500		99	80-120			
LCS Dup (9040441-BSD1)				Prepared & Analyzed: 04/05/19						
Phosphorus, Total	0.49	0.05	mg/l	0.500		97	80-120	2	20	
Duplicate (9040441-DUP1)		**Source: 19D0161-01**		Prepared & Analyzed: 04/05/19						
Phosphorus, Total	0.24	0.05	mg/l		0.24			2	20	
Matrix Spike (9040441-MS1)		**Source: 19D0161-01**		Prepared & Analyzed: 04/05/19						
Phosphorus, Total	0.72	0.05	mg/l	0.500	0.24	97	80-120			
Matrix Spike Dup (9040441-MSD1)		**Source: 19D0161-01**		Prepared & Analyzed: 04/05/19						
Phosphorus, Total	0.74	0.05	mg/l	0.500	0.24	100	80-120	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: April 2, 2019

EMA Log #: 19D0115

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
QM-4X	The spike recovery was outside of the QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN-OF-CUSTODY RECORD 19D0115

EnviroMatrix Analytical, Inc.
4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: [redacted]
Attn:
Samplers(s): Cole Harmon
Addr [redacted]
Phone [redacted] Fax:
Email: [redacted]
Bi [redacted]
Project ID:
Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015B (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □TDS	□ Nitrate □ Nitrite □ TKN □NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Hg	Fe	Mn	Total Phos
1	Fisherman's Footbridge	4/2/19	10:36	DW																				x	x	x	
2	33.0039 LAT																										
3	-117.0069 LONG																										
4																											
5	Warren Crossing	4/2/19	10:57	OW																							x
6	33.0030 LAT																										
7	-117.0057 LONG																										
8																											
9																											
10																											

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 24 hr □ 48 hr □ 3 day □ 4 day □ 5 day ☒ STD (7 day)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT

[1]**Sample Disposal:** ☒ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: (Yes) No N/A	Containers Properly Preseved: (Yes) No N/A
Custody Seals Intact: Yes No (N/A)	Temp @ Receipt: 22°C
COC/Labels Agree: (Yes) No N/A	Sampled By: (Client) EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	1400 4/2/19	Signature [signature]
Print [redacted]		Print Mark Rai
Company:		Company: EM
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Comments:

[1]Additional costs may apply, consult a project manager for details.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

11 April 2019

Personal Privacy ex. (b)(6)
[redacted]

Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19C0957

Project Name: March 28, 2019

Enclosed are the results of analyses for samples received by the laboratory on 03/28/19 15:20. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: March 28, 2019

EMA Log #: 19C0957

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Kelly Spring 32.9990 LAT -116.9756 LONG	19C0957-01	Drinking Water	03/28/19 10:18	03/28/19 15:20
Rock Haven Spring 32.9978 LAT -116.9753 LONG	19C0957-02	Drinking Water	03/28/19 10:14	03/28/19 15:20
Fisherman's Footbridge 33.0039 LAT -117.0069 LONG	19C0957-03	Drinking Water	03/28/19 11:14	03/28/19 15:20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: [redacted]

EMA Log #: 19C0957

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring 32.9990 LAT -116.9756 LONG (19C0957-01) Drinking Water Sampled: 03/28/19 10:18 Received: 03/28/19 15:20									
Iron	**0.495**	0.050	mg/l	1	9040944	04/09/19	04/10/19	EPA 200.8	
Manganese	ND	0.005	"	"	"	"	"	"	
Rock Haven Spring 32.9978 LAT -116.9753 LONG (19C0957-02) Drinking Water Sampled: 03/28/19 10:14 Received: 03/28/19 15:20									
Iron	**0.226**	0.050	mg/l	1	9040944	04/09/19	04/10/19	EPA 200.8	
Manganese	ND	0.005	"	"	"	"	"	"	
Fisherman's Footbridge 33.0039 LAT -117.0069 LONG (19C0957-03) Drinking Water Sampled: 03/28/19 11:14 Received: 03/28/19 15:20									
Iron	**0.293**	0.050	mg/l	1	9040944	04/09/19	04/10/19	EPA 200.8	
Manganese	**0.025**	0.005	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: March 28, 2019

EMA Log #: 19C0957

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring 32.9990 LAT -116.9756 LONG (19C0957-01) Drinking Water Sampled: 03/28/19 10:18 Received: 03/28/19 15:20									
Color	**50**	1	Color Units	1	9032935	03/29/19	03/29/19	SM2120 B	
Rock Haven Spring 32.9978 LAT -116.9753 LONG (19C0957-02) Drinking Water Sampled: 03/28/19 10:14 Received: 03/28/19 15:20									
Color	**22**	1	Color Units	1	9032935	03/29/19	03/29/19	SM2120 B	
Fisherman's Footbridge 33.0039 LAT -117.0069 LONG (19C0957-03) Drinking Water Sampled: 03/28/19 11:14 Received: 03/28/19 15:20									
Color	**31**	1	Color Units	1	9032935	03/29/19	03/29/19	SM2120 B	
Phosphorus, Total	**0.14**	0.05	mg/l	"	9032929	04/01/19	04/01/19	SM4500 P B, E	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: March 28, 2019

EMA Log #: 19C0957

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040944										
Blank (9040944-BLK1)				Prepared: 04/09/19	Analyzed: 04/10/19					
Iron	ND	0.050	mg/l							
Manganese	ND	0.005	"							
LCS (9040944-BS1)				Prepared: 04/09/19	Analyzed: 04/10/19					
Iron	0.105	0.050	mg/l	0.100		105	85-115			
Manganese	0.103	0.005	"	0.100		103	85-115			
LCS Dup (9040944-BSD1)				Prepared: 04/09/19	Analyzed: 04/10/19					
Iron	0.105	0.050	mg/l	0.100		105	85-115	0.09	20	
Manganese	0.103	0.005	"	0.100		103	85-115	0.3	20	
Duplicate (9040944-DUP1)		**Source: 19D0131-03**		Prepared: 04/09/19	Analyzed: 04/10/19					
Manganese	0.022	0.005	mg/l		0.027			22	20	QR-02
Iron	1.04	0.050	"		0.960			8	20	
Matrix Spike (9040944-MS1)		**Source: 19D0131-03**		Prepared: 04/09/19	Analyzed: 04/10/19					
Iron	1.10	0.050	mg/l	0.100	0.960	138	70-130			QM-4X
Manganese	0.125	0.005	"	0.100	0.027	98	70-130			
Matrix Spike (9040944-MS2)		**Source: 19C0958-02**		Prepared: 04/09/19	Analyzed: 04/10/19					
Manganese	0.120	0.005	mg/l	0.100	0.006	114	70-130			
Iron	0.281	0.050	"	0.100	0.184	96	70-130			
Matrix Spike Dup (9040944-MSD1)		**Source: 19D0131-03**		Prepared: 04/09/19	Analyzed: 04/10/19					
Iron	1.03	0.050	mg/l	0.100	0.960	71	70-130	6	20	
Manganese	0.123	0.005	"	0.100	0.027	96	70-130	2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: March 28, 2019

EMA Log #: 19C0957

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032929										
Blank (9032929-BLK1)				Prepared & Analyzed: 04/01/19						
Phosphorus, Total	ND	0.05	mg/l							
LCS (9032929-BS1)				Prepared & Analyzed: 04/01/19						
Phosphorus, Total	0.56	0.05	mg/l	0.500		112	80-120			
LCS Dup (9032929-BSD1)				Prepared & Analyzed: 04/01/19						
Phosphorus, Total	0.53	0.05	mg/l	0.500		106	80-120	6	20	
Duplicate (9032929-DUP1)		Source: 19C0649-02		Prepared & Analyzed: 04/01/19						
Phosphorus, Total	0.11	0.05	mg/l		0.10			16	20	
Matrix Spike (9032929-MS1)		Source: 19C0649-02		Prepared & Analyzed: 04/01/19						
Phosphorus, Total	0.62	0.05	mg/l	0.500	0.10	105	80-120			
Matrix Spike Dup (9032929-MSD1)		Source: 19C0649-02		Prepared & Analyzed: 04/01/19						
Phosphorus, Total	0.62	0.05	mg/l	0.500	0.10	104	80-120	1	20	
Batch 9032935										
Blank (9032935-BLK1)				Prepared & Analyzed: 03/29/19						
Color	ND	1	Color Units							
Duplicate (9032935-DUP1)		Source: 19C0957-02		Prepared & Analyzed: 03/29/19						
Color	22	1	Color Units		22			0	20	
Reference (9032935-SRM1)				Prepared & Analyzed: 03/29/19						
Color	48	1	Color Units	50.0		96	80-120			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]	**EMA Log #: 19C0957**
Project Name: March 28, 2019	

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
QM-4X	The spike recovery was outside of the QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Page___ of ___

CHAIN-OF-CUSTODY RECORD 19C0957

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6) [redacted]

Attn:

Samplers(s): Personal Privacy ex. (b)

Address Personal Privacy ex. (b)(6) [redacted]

Phone Personal Privacy ex. Fax:

Email: Personal Privacy ex. (b)(6) [redacted]

Billing Address: Personal Privacy ex. (b)(6) [redacted]

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	□ pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Fe	Mn	Color	Total Phos	
1	Kelly Spring	3/28/19	10:18	DW																				X	X	X		
2	32.9990 LAT																											
3	-116.9756 LONG																											
4																												
5	Rock Haven Spring	3/28/19	10:14	DW																				X	X	X		
6	32.9978 LAT																											
7	-116.9753 LONG																											
8																												
9	Fishermans Footbridge	3/28/19	11:40am	DW																				X	X	X	X	
10	33.0039 LAT -117.0069 Long																											

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS □ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day ☒ STD (7-business days)

[1]**Reporting Requirements:** □ Fax □ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]**Sample Disposal:** □ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes (No) N/A — Containers Properly Preseved: Yes (No) N/A

Custody Seals Intact: Yes No ~~N/A~~ — Temp @ Receipt: 16°C on ice

COC/Labels Agree: (Yes) No N/A — Sampled By: (Client) EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	3/28/19 1520	Signature [signature]
Print Personal Privacy ex. (b) (6) [redacted]		Print [signature]
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments: Preserved in lab

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

03 April 2019

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

EMA Log #: 19C0723

Project Name: Kelly Springs

Enclosed are the results of analyses for samples received by the laboratory on 03/21/19 15:38. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: Kelly Springs

EMA Log #: 19C0723

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Kelly Spring 32.9990 LAT -1163.9756 LONG	19C0723-01	Drinking Water	03/21/19 00:00	03/21/19 15:38

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Kelly Springs

EMA Log #: 19C0723

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring 32.9990 LAT -1163.9756 LONG (19C0723-01) Drinking Water Sampled: 03/21/19 00:00 Received: 03/21/19 15:38									
Iron	**0.536**	0.050	mg/l	1	9040165	04/01/19	04/01/19	EPA 200.8	
Manganese	ND	0.005	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Kelly Springs

EMA Log #: 19C0723

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Kelly Spring 32.9990 LAT -1163.9756 LONG (19C0723-01) Drinking Water Sampled: 03/21/19 00:00 Received: 03/21/19 15:38									
Color	**65**	1	Color Units	1	9032227	03/21/19	03/21/19	SM2120 B	
pH at 25 deg C	**7.03**	0.10	pH Units	"	9032217	03/21/19	03/21/19	SM4500-H+ B	HT-15
Phosphorus, Total	**0.12**	0.05	mg/l	"	9032580	03/25/19	03/25/19	SM4500 P B, E	
Turbidity	**5.50**	0.05	NTU	"	9032220	03/21/19	03/21/19	SM2130 B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Kelly Springs

EMA Log #: 19C0723

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040165										
Blank (9040165-BLK1)				Prepared & Analyzed: 04/01/19						
Iron	ND	0.050	mg/l							
Manganese	ND	0.005	"							
LCS (9040165-BS1)				Prepared & Analyzed: 04/01/19						
Iron	0.103	0.050	mg/l	0.100		103	85-115			
Manganese	0.103	0.005	"	0.100		103	85-115			
LCS Dup (9040165-BSD1)				Prepared & Analyzed: 04/01/19						
Manganese	0.102	0.005	mg/l	0.100		102	85-115	1	20	
Iron	0.099	0.050	"	0.100		99	85-115	5	20	
Duplicate (9040165-DUP1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.012	0.005	mg/l		0.010			23	20	QR-02
Iron	0.224	0.050	"		0.226			1	20	
Matrix Spike (9040165-MS1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130			
Iron	0.315	0.050	"	0.100	0.226	88	70-130			
Matrix Spike (9040165-MS2)		**Source: 19C0686-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.123	0.005	mg/l	0.100	0.018	105	70-130			
Iron	0.481	0.050	"	0.100	0.366	115	70-130			
Matrix Spike Dup (9040165-MSD1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130	0.5	20	
Iron	0.324	0.050	"	0.100	0.226	98	70-130	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Kelly Springs

EMA Log #: 19C0723

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032217										
Duplicate (9032217-DUP1)		**Source: 19C0698-01**		Prepared & Analyzed: 03/21/19						
pH at 25 deg C	7.47	0.10	pH Units		7.67			3	20	
Reference (9032217-SRM1)				Prepared & Analyzed: 03/21/19						
pH at 25 deg C	5.88	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9032220										
Blank (9032220-BLK1)				Prepared & Analyzed: 03/21/19						
Turbidity	ND	0.05	NTU							
Duplicate (9032220-DUP1)		**Source: 19C0657-02**		Prepared & Analyzed: 03/21/19						
Turbidity	0.10	0.05	NTU		0.10			0	20	
Reference (9032220-SRM1)				Prepared & Analyzed: 03/21/19						
Turbidity	5.50	0.05	NTU	5.97		92	85-112			
Batch 9032227										
Duplicate (9032227-DUP1)		**Source: 19C0657-06**		Prepared & Analyzed: 03/21/19						
Color	ND	1	Color Units		ND				20	
Reference (9032227-SRM1)				Prepared & Analyzed: 03/21/19						
Color	51	1	Color Units	50.0		102	80-120			
Batch 9032580										
Blank (9032580-BLK1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	ND	0.05	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Kelly Springs

EMA Log #: 19C0723

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032580										
LCS (9032580-BS1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500		102	80-120			
LCS Dup (9032580-BSD1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.50	0.05	mg/l	0.500		100	80-120	2	20	
Duplicate (9032580-DUP1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.11	0.05	mg/l		0.11			2	20	
Matrix Spike (9032580-MS1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.62	0.05	mg/l	0.500	0.11	102	80-120			
Matrix Spike Dup (9032580-MSD1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.64	0.05	mg/l	0.500	0.11	106	80-120	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Kelly Springs

EMA Log #: 19C0723

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1960723 ~~1960726~~ MR

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6) [redacted]

Attn:

Samplers(s): Personal Privacy ex. (b)

Address: Personal Privacy ex. (b)(6) [redacted]

Phone: Personal Privacy ex. (b)(6) [redacted] Fax:

Email: Personal Privacy ex. (b)(6) [redacted]

Billing Address: same as address

Project ID:

Project #: PO #:

Requested Analysis

ID#	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC), Full BTXE, MTBE, Oxy, Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Coliert, T+E Coli □ P/A □ Enumeration	Enterococcus □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	X Turbidity	X Total / Phos	X Fe	X Mn	X Color
1	Kelly Springs	3/21/19	2:21 p.m											X														
2	32.9990 LAT																											
3																												
4	-116.9755 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other

[1]Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day X STD (7-business days)

[1]Reporting Requirements: □ Fax X PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]Sample Disposal: X By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: (Yes) No N/A — Containers Properly Preserved: (Yes) No N/A

Custody Seals Intact: Yes No (N/A) — Temp @ Receipt: 18 C

COC/Labels Agree: (Yes) No N/A — Sampled By: Client (EMA) Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature: [signature]	3/21/19 15:38	Signature: [signature]
Print: Personal Privacy ex.		Print: Amanda Walker
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments:

Sample was preserved ~~wit~~ in lab w/ HNO3 & H2SO4 — AW 3/21/19

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

1900723 ~~1910726~~ MR

Page___ of ___

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6)

Attn:

Samplers(s): Personal Privacy ex.

Addre Personal Privacy ex. (b)(6)

Phone: Personal Privacy ex. (b) Fax:

Email: Personal Privacy ex. (b)(6)

Billing Address: Same as address

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide					
1	Kelly Springs	3/21/19	2:21 p.m.											X										X Turbidity	X Total Phos	X Fe	X Mn	X Color
2	32.9990 LAT																											
3																												
4	-116.9750 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day X STD (7-business days)

[1]**Reporting Requirements:** □ Fax X PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]**Sample Disposal:** X By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preseved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 18°C

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature	3/21/19 15:38	Signature AW
Print		Print Amanda Walster
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments:

Sample was preserved ~~wit~~ in lab w/ HNO3 & H2SO4 - AW 3/21/19

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

03 April 2019

[redacted]
Personal Privacy ex. (b)(6)
[redacted]
Personal Privacy ex. (b)(6)
[redacted]

EMA Log #: 19C0724

Project Name: Rock Haven Spring

Enclosed are the results of analyses for samples received by the laboratory on 03/21/19 15:38. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6)
Project Name: Rock Haven Spring

EMA Log #: 19C0724

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Rock Haven Spring 32.9980 LAT -116.9761 LONG	19C0724-01	Drinking Water	03/21/19 14:17	03/21/19 15:38

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex.
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Rock Haven Spring 32.9980 LAT -116.9761 LONG (19C0724-01) Drinking Water Sampled: 03/21/19 14:17 Received: 03/21/19 15:38									
Iron	**0.211**	0.050	mg/l	1	9040165	04/01/19	04/01/19	EPA 200.8	
Manganese	ND	0.005	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Rock Haven Spring 32.9980 LAT -116.9761 LONG (19C0724-01) Drinking Water Sampled: 03/21/19 14:17 Received: 03/21/19 15:38									
Color	**29**	1	Color Units	1	9032227	03/21/19	03/21/19	SM2120 B	
pH at 25 deg C	**6.67**	0.10	pH Units	"	9032217	03/21/19	03/21/19	SM4500-H+ B	HT-15
Phosphorus, Total	**0.05**	0.05	mg/l	"	9032580	03/25/19	03/25/19	SM4500 P B, E	
Turbidity	**3.40**	0.05	NTU	"	9032220	03/21/19	03/21/19	SM2130 B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040165										
Blank (9040165-BLK1)				Prepared & Analyzed: 04/01/19						
Iron	ND	0.050	mg/l							
Manganese	ND	0.005	"							
LCS (9040165-BS1)				Prepared & Analyzed: 04/01/19						
Iron	0.103	0.050	mg/l	0.100		103	85-115			
Manganese	0.103	0.005	"	0.100		103	85-115			
LCS Dup (9040165-BSD1)				Prepared & Analyzed: 04/01/19						
Manganese	0.102	0.005	mg/l	0.100		102	85-115	1	20	
Iron	0.099	0.050	"	0.100		99	85-115	5	20	
Duplicate (9040165-DUP1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.012	0.005	mg/l		0.010			23	20	QR-02
Iron	0.224	0.050	"		0.226			1	20	
Matrix Spike (9040165-MS1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130			
Iron	0.315	0.050	"	0.100	0.226	88	70-130			
Matrix Spike (9040165-MS2)		**Source: 19C0686-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.123	0.005	mg/l	0.100	0.018	105	70-130			
Iron	0.481	0.050	"	0.100	0.366	115	70-130			
Matrix Spike Dup (9040165-MSD1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130	0.5	20	
Iron	0.324	0.050	"	0.100	0.226	98	70-130	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032217										
Duplicate (9032217-DUP1)		**Source: 19C0698-01**		Prepared & Analyzed: 03/21/19						
pH at 25 deg C	7.47	0.10	pH Units		7.67			3	20	
Reference (9032217-SRM1)				Prepared & Analyzed: 03/21/19						
pH at 25 deg C	5.88	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9032220										
Blank (9032220-BLK1)				Prepared & Analyzed: 03/21/19						
Turbidity	ND	0.05	NTU							
Duplicate (9032220-DUP1)		**Source: 19C0657-02**		Prepared & Analyzed: 03/21/19						
Turbidity	0.10	0.05	NTU		0.10			0	20	
Reference (9032220-SRM1)				Prepared & Analyzed: 03/21/19						
Turbidity	5.50	0.05	NTU	5.97		92	85-112			
Batch 9032227										
Duplicate (9032227-DUP1)		**Source: 19C0657-06**		Prepared & Analyzed: 03/21/19						
Color	ND	1	Color Units		ND				20	
Reference (9032227-SRM1)				Prepared & Analyzed: 03/21/19						
Color	51	1	Color Units	50.0		102	80-120			
Batch 9032580										
Blank (9032580-BLK1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	ND	0.05	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6)
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032580										
LCS (9032580-BS1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500		102	80-120			
LCS Dup (9032580-BSD1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.50	0.05	mg/l	0.500		100	80-120	2	20	
Duplicate (9032580-DUP1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.11	0.05	mg/l		0.11			2	20	
Matrix Spike (9032580-MS1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.62	0.05	mg/l	0.500	0.11	102	80-120			
Matrix Spike Dup (9032580-MSD1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.64	0.05	mg/l	0.500	0.11	106	80-120	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Rock Haven Spring

EMA Log #: 19C0724

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1910724

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: Personal Privacy ex. (b)(6)

Attn:

Samplers(s): Personal Privacy

Address: Personal Privacy ex. (b)(6)

Phone: Personal Privacy ex. Fax:

Email: Personal Privacy ex. (b)(6)

Billing Address: Same

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM 17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform: □ Total (MTF) □ Fecal (MTF)	Coliform, T+E.Coli □ P/A □ Enumeration	Enterococcus □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide				
1	Rock Haven Springs	3/21	2:17											X									X	X	X	X	X
2		19																									
3	32.9980 LAT																										
4	-116.9761 LONG																										
5																											
6																											
7																											
8																											
9																											
10																											

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day ☒ STD (7-business days)

Reporting Requirements: □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

Sample Disposal: ☒ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Container: Yes No N/A

Custody Seals Intact: Yes No N/A

COC/Labels Agree: Yes No N/A

Containers Properly Preserved: Yes No N/A

Temp @ Receipt: 1.8°C

Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature: [illegible]	3/21/19 15:38	Signature: [illegible]
Print: Personal Privacy (b)(6)		Print: Amanda Webster
Company: [illegible]		Company: EMA
Signature:		Signature:
Print:		Print:
Company:		Company:
Signature:		Signature:
Print:		Print:
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments: Sample was preserved in lab. AW - 3/21/19 with HNO3 #2504

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

1910724

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:

Client: [redacted]

Attn:

Samplers(s):

Address:

Phone: Fax:

Email:

Billing Address: Same ↑

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Turbidity	Total Phos	Fe	Mn	Color
1	Rock Haven Spring	3/21/19	2:17											X										X	X	X	X	X
2																												
3	32.9980 LAT																											
4	-116.9761 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS ☒ Client Drop Off □ Other

[1]**Turn-Around-Time:** □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day ☒ STD (7-business days)

[1]**Reporting Requirements:** □ Fax ☒ PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]**Sample Disposal:** ☒ By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A
Custody Seals Intact: Yes No N/A
COC/Labels Agree: Yes No N/A
Containers Properly Preseved: Yes No N/A
Temp @ Receipt: 18°C
Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature	3/21/19 15:38	Signature
Print		Print Amanda Walster
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments: Sample was preserved in lab. AW - 3/21/19 with HNO3 & H2SO4

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

EnviroMatrix Analytical, Inc.

03 April 2019

Personal Privacy ex. (b)(6)

Personal Privacy ex. (b)(6)

EMA Log #: 19C0725

Project Name: Warren Crossing

Enclosed are the results of analyses for samples received by the laboratory on 03/21/19 15:38. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

Dan Verdon
Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: [redacted]

EMA Log #: 19C0725

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Warren Crossing 33.0030 LAT -117.0056 LONG	19C0725-01	Drinking Water	03/18/19 12:04	03/21/19 15:38

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)
Project Name: Warren Crossing

EMA Log #: 19C0725

Total Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT -117.0056 LONG (19C0725-01) Drinking Water Sampled: 03/18/19 12:04 Received: 03/21/19 15:38									
Iron	**0.630**	0.050	mg/l	1	9040165	04/01/19	04/01/19	EPA 200.8	
Manganese	**0.022**	0.005	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Warren Crossing

EMA Log #: 19C0725

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Warren Crossing 33.0030 LAT -117.0056 LONG (19C0725-01) Drinking Water Sampled: 03/18/19 12:04 Received: 03/21/19 15:38									
Color	**40**	1	Color Units	1	9032227	03/21/19	03/21/19	SM2120 B	HT-04
pH at 25 deg C	**7.57**	0.10	pH Units	"	9032217	03/21/19	03/21/19	SM4500-H+ B	HT-15
Phosphorus, Total	**0.12**	0.05	mg/l	"	9032580	03/25/19	03/25/19	SM4500 P B, E	
Turbidity	**6.70**	0.05	NTU	"	9032220	03/21/19	03/21/19	SM2130 B	HT-04

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Warren Crossing

EMA Log #: 19C0725

Total Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9040165										
Blank (9040165-BLK1)				Prepared & Analyzed: 04/01/19						
Iron	ND	0.050	mg/l							
Manganese	ND	0.005	"							
LCS (9040165-BS1)				Prepared & Analyzed: 04/01/19						
Iron	0.103	0.050	mg/l	0.100		103	85-115			
Manganese	0.103	0.005	"	0.100		103	85-115			
LCS Dup (9040165-BSD1)				Prepared & Analyzed: 04/01/19						
Manganese	0.102	0.005	mg/l	0.100		102	85-115	1	20	
Iron	0.099	0.050	"	0.100		99	85-115	5	20	
Duplicate (9040165-DUP1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.012	0.005	mg/l		0.010			23	20	QR-02
Iron	0.224	0.050	"		0.226			1	20	
Matrix Spike (9040165-MS1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130			
Iron	0.315	0.050	"	0.100	0.226	88	70-130			
Matrix Spike (9040165-MS2)		**Source: 19C0686-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.123	0.005	mg/l	0.100	0.018	105	70-130			
Iron	0.481	0.050	"	0.100	0.366	115	70-130			
Matrix Spike Dup (9040165-MSD1)		**Source: 19C0889-01**		Prepared & Analyzed: 04/01/19						
Manganese	0.113	0.005	mg/l	0.100	0.010	103	70-130	0.5	20	
Iron	0.324	0.050	"	0.100	0.226	98	70-130	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Warren Crossing

EMA Log #: 19C0725

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032217										
Duplicate (9032217-DUP1)		**Source: 19C0698-01**		Prepared & Analyzed: 03/21/19						
pH at 25 deg C	7.47	0.10	pH Units		7.67			3	20	
Reference (9032217-SRM1)				Prepared & Analyzed: 03/21/19						
pH at 25 deg C	5.88	0.10	pH Units	5.83		101	6.57-103.4			
Batch 9032220										
Blank (9032220-BLK1)				Prepared & Analyzed: 03/21/19						
Turbidity	ND	0.05	NTU							
Duplicate (9032220-DUP1)		**Source: 19C0657-02**		Prepared & Analyzed: 03/21/19						
Turbidity	0.10	0.05	NTU		0.10			0	20	
Reference (9032220-SRM1)				Prepared & Analyzed: 03/21/19						
Turbidity	5.50	0.05	NTU	5.97		92	85-112			
Batch 9032227										
Duplicate (9032227-DUP1)		**Source: 19C0657-06**		Prepared & Analyzed: 03/21/19						
Color	ND	1	Color Units		ND				20	
Reference (9032227-SRM1)				Prepared & Analyzed: 03/21/19						
Color	51	1	Color Units	50.0		102	80-120			
Batch 9032580										
Blank (9032580-BLK1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	ND	0.05	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Warren Crossing

EMA Log #: 19C0725

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9032580										
LCS (9032580-BS1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.51	0.05	mg/l	0.500		102	80-120			
LCS Dup (9032580-BSD1)				Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.50	0.05	mg/l	0.500		100	80-120	2	20	
Duplicate (9032580-DUP1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.11	0.05	mg/l		0.11			2	20	
Matrix Spike (9032580-MS1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.62	0.05	mg/l	0.500	0.11	102	80-120			
Matrix Spike Dup (9032580-MSD1)		**Source: 19C0587-08**		Prepared & Analyzed: 03/25/19						
Phosphorus, Total	0.64	0.05	mg/l	0.500	0.11	106	80-120	3	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Personal Privacy ex. (b)(6) [redacted]
Project Name: Warren Crossing

EMA Log #: 19C0725

Notes and Definitions

QR-02	The RPD result exceeded the QC limits due to non-homogeneity of sample.
HT-15	This sample was received outside of the EPA's recommended 15 minute holding time for this analysis. However, the sample was analyzed immediately upon receipt.
HT-04	This sample was received outside of the EPA recommended holding time for this analysis.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1960725

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A - San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Page___ of___

Personal Privacy ex. (b)(6)

[redacted]

same

Project ID:

Project #: PO #:

Requested Analysis

ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type	Oil & Grease □ 413.1 □ 413.2 □ 1664	8015 (TPH) □ Gas □ Diesel □ Ext	624/8260 (VOC) Full BTXE MTBE Oxy Nap	625 / 8270 (SVOC) □ PAH only	608 / 8081 (Organochlorine Pesticides)	608 / 8082 (Polychlorinated Biphenyls)	8141 (Organophosphorus Pesticides)	TBT (Organotin Compounds)	pH □ EC □ TSS □ TDS	□ Nitrate □ Nitrite □ N-N □ TKN □ NH3	CAC Title 22/CAM17 Metals □ TTLC □ STLC	TCLP (RCRA) □ Metals □ Organics	Cd Cr Cu Pb Ni Ag Zn □ Dissolved	Coliform, □ Total (MTF) □ Fecal (MTF)	Colilert, T+E.Coli □ P/A □ Enumeration	Enterococcus, □ MTF □ Enterolert	Heterotrophic Plate Count (HPC)	□ BOD □ COD □ Cyanide	Turbidity	Total Phos	Fe	Mn	Color
1	Warren Crossing	3/18/19	12:04 p.m.											X										X	X	X	X	X
2																												
3	33.0030 LAT																											
4	-117.0056 LONG																											
5																												
6																												
7																												
8																												
9																												
10																												

Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid

Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other

[1]Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day X STD (7-business days)

[1]Reporting Requirements: □ Fax X PDF □ Excel □ Geotracker/EDF □ Hard Copy □ EDT □ CEDEN □ SDWIS

[1]Sample Disposal: X By Laboratory □ [2]Return to Client: P/U or Delivery □ Archive

Sample Integrity

Correct Containers: Yes No N/A — Containers Properly Preseved: Yes No N/A

Custody Seals Intact: Yes No N/A — Temp @ Receipt: 1.0°C

COC/Labels Agree: Yes No N/A — Sampled By: Client EMA Autosampler

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature [signature]	3/21/19 15:38	Signature [signature]
Print [redacted]		Print Amanda Walster
Company:		Company: EMA
Signature		Signature
Print		Print
Company:		Company:
Signature		Signature
Print		Print
Company:		Company:

Project/Sample Location/Address:

Project/Sample Comments: Sample was preserved in lab with HNO3 & H2SO4 -AW- 3/21/19

[1]Additional costs may apply. Please note there is a $35 minimum charge for all clients.

[2]EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

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RELIABLE SOLUTIONS IN WATER RESOURCES

MEMORANDUM

Date: August 7, 2018

FROM: Tory R. Walker, PE, CFM, LEED GA, QISP

TO: Personal Privacy ex. (b)(6)
Personal Privacy ex. (b)(6)

RE: Mt. Woodson-Rock Haven Spring Mitigation Bank – Hydrology and Basis of Design

PURPOSE

The proposed Mt. Woodson-Rock Haven Spring Mitigation Bank, including its location, site history and resources, surrounding area and topography, is described in greater detail in a companion document the Mt. Woodson-Rock Haven Spring Mitigation Bank Draft Prospectus.

The prospectus provides a detailed description of the geographical setting for the San Dieguito Watershed, and the potential for water quality benefits and habitat gained with proposed restoration efforts on the Personal Privacy ex. (b)(6) The decline of wetlands nationwide, and in this area in particular, are noted and described. The purpose of this memorandum is to provide a preliminary hydrologic analysis and basis for design of a bioengineered creek restoration and rehabilitation that will:

1) ensure both the interim and long-term success of proposed wetlands within the mitigation bank, and
2) provide water quality improvements to the downstream watershed.

WATERSHED HYDROLOGY

The proposed wetland creation and enhancements within the mitigation bank are located within USGS blue line streams at the west property boundary of the Personal Privacy ex. (b)(6) It is comprised of two separate locations, one on a southerly blue line drainage, and one on a northerly blue line drainage. Each is distinct in design, but also with common elements required for creek stabilization.

One of the elements in common to both is the characteristics of the tributary watersheds; side by side, these two watersheds are very similar in size, shape, soils and geology (high runoff potential), vegetative cover and topography. Because of these similarities, it is reasonable to estimate storm runoff peak flows as approximately the same; with the northerly watershed

being approximately 233 acres and the southerly watershed being approximately 229 acres, we are estimating peak flows at the northerly restoration site to be 1 percent higher. Peak flow rates are estimated from StreamStats (see attached) for the 2-, 5-, 10-, 25-, 50- and 100-year recurrence interval storms and listed in Table 1.

Table 1: Watershed – Hydrologic Data (cfs)

Northerly Drainage (233 Acres)	14	39	60	89	111	134
Southerly Drainage (229 Acres)	14	39	59	88	110	133

On the other hand, seasonal low flows in the northerly drainage are more influenced by the presence of a number of seasonal springs within the watershed, including some perennial springs on the south-facing slopes of Mount Woodson and one spring on the [redacted] upstream of the restoration site. Absent stream gage data, some subjectivity and additional evidence is required to estimate seasonal flows in these two upper watersheds. The presence of wetland vegetation at the northerly restoration site does provide evidence for the viability of a small created wetland. Estimated seasonal average flows (not accounting for baseflows from springs) are listed below in Table 2.

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Table 2: Monthly Average Flows

Jan	0.27	0.26
Feb	0.30	0.29
Mar	0.24	0.24
Apr	0.11	0.11
May	0.03	0.03
Jun	0.01	0.01
Jul	0.00	0.00
Aug	0.01	0.01
Sep	0.02	0.02
Oct	0.05	0.05
Nov	0.15	0.15
Dec	0.18	0.18

These estimated average flowrates are calculated using the rational method, $Q = CiA$, where:

C, runoff coefficient = 0.35 (undeveloped, hydrologic soil group Type D)

i, rainfall intensity (inches per hour) = average per month hourly rainfall intensity (in/hr) from Poway precipitation station data analysis, 1962-2008

A, area (acres) = 233 ac (north); 229 ac (south)

APPROACH AND DESCRIPTION OF CREEK RESTORATION AND REHABILITATION

Due to the near-pristine nature of the site, a bioengineering design approach is taken for both proposed sites; the flexibility afforded by using bioengineering techniques must of course be balanced by the need for both short-term and long-term sustainability and stability of the restoration and rehabilitation. Therefore, natural rock grade stabilization structures are proposed at the downstream end of both sites. A portion of both stabilization structures would lie within 60-foot easements for public utilities appurtenant to APN: 278-210-1800.

Southerly Drainage

The restoration at the southerly drainage location would consist of a natural rock weir, possibly with additional stabilization/reinforcement for potential temporary vehicle access, i.e. Enviroblock® or similar. Enviroblock is a sustainable aggregate building block. The weir elevation would allow for stable slope and other benefits noted below:

- Reestablishes creek profile
- Interim – slows down higher flows that are more erosive by detaining these higher flows; captures sediment, which reduces sedimentation downstream
- Longer term – stable slope with alluvium will increase infiltration of low flow runoff, which will recharge groundwater, facilitate facultative wetland vegetative growth and reduce hydromodification impacts downstream.

Refer to the profile and cross section exhibits attached with this report for reference.

Northerly Drainage

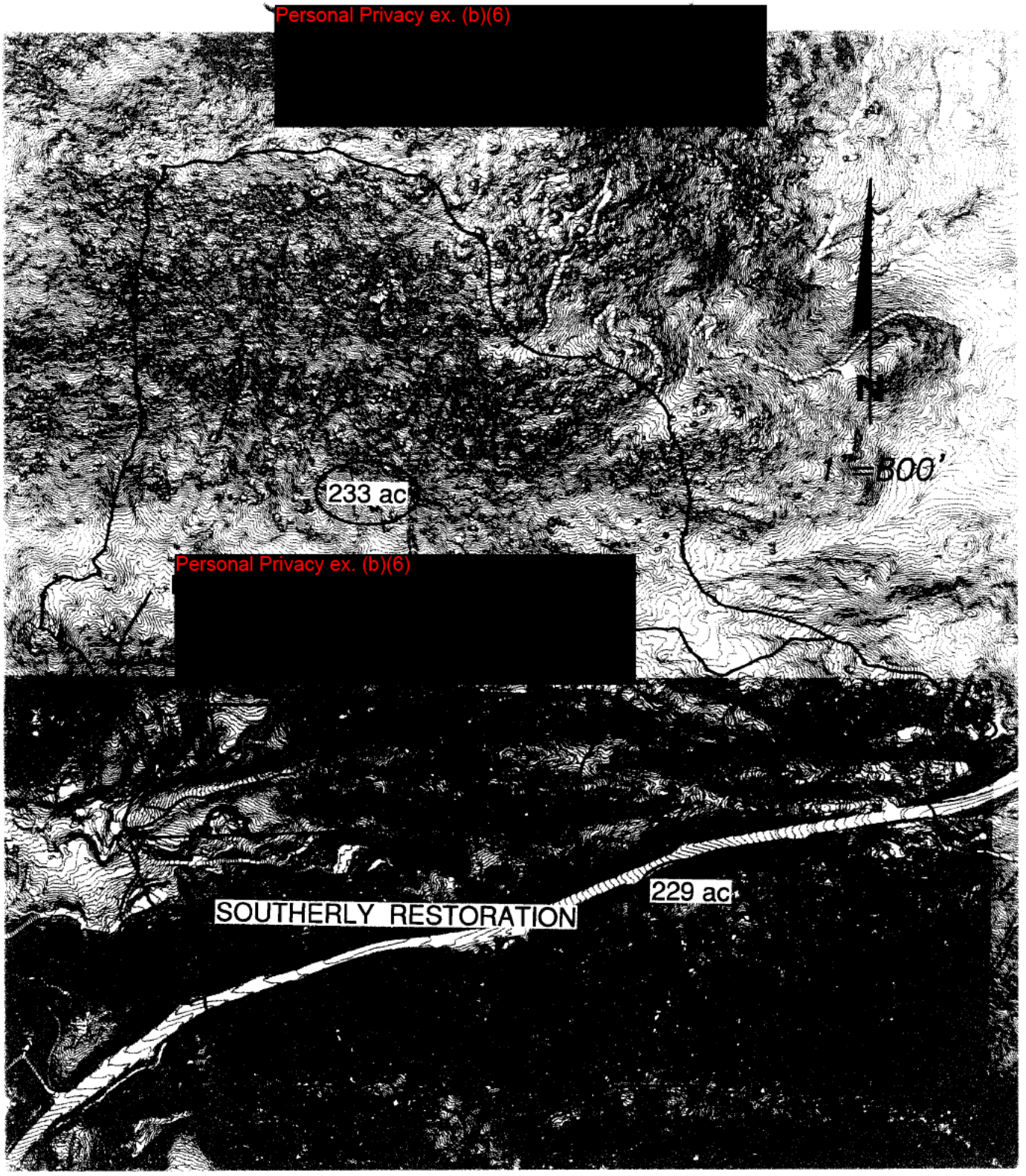
The restoration at the northerly drainage location would again consist of a natural rock weir, along with some minor grading upstream to create a flat area for wetland habitat. The grading is proposed on the northerly bank and is proposed at an area with little or no native habitat. The upland and oak habitat on the south side of the drainage would remain untouched. The incised gully upstream of the weir/existing road would be filled in and covered by new wetland. The weir elevation would allow for stable slope and other benefits noted below:

- Reestablishes creek profile
- Creates 0.03 additional acres of wetland
- Flows will spread out and increase infiltration of low flow runoff, which will recharge groundwater, sustain wetland vegetation and reduce hydromodification impacts downstream.

Refer to the profile and cross section exhibits attached with this report for reference.

CONCLUSIONS

The proposed stream and habitat rehabilitation projects at the southerly and northerly drainages on the [redacted] Personal Privacy ex. (b)(6) would provide restoration, water quality improvement, and wetland creation benefits to the City of Poway and to the overall San Dieguito Watershed. Finding suitable locations for mitigation banks is becoming more challenging, and this report with backup documentation presents a viable mitigation bank location. Rehabilitating the streams on the [redacted] Personal Privacy ex. (b) to be more sustainably configured would slow down storm water flows and provide more assimilative capacity for pollutants while still being supportive of designated beneficial uses of wetlands.



RESTORATION LOCATION MAP
and WATERSHED BOUNDARIES

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AUGUST 7, 2018

StreamStats Report

Region ID: CA
Workspace ID: CA20180726164820736000
Clicked Point (Latitude, Longitude): 32.99765, -116.97571
Time: 2018-07-26 09:48:40 -0700

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.7	square miles
PRECIP	Mean Annual Precipitation	19	inches

Peak-Flow Statistics Parameters [2012 5113 Region 5 South Coast]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.7	square miles	0.04	850

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
PRECIP	Mean Annual Precipitation	19	inches	10	45

Peak-Flow Statistics Flow Report [2012 5113 Region 5 South Coast]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	SEp
2 Year Peak Flood	26	ft^3/s	4.68	144	134
5 Year Peak Flood	74.4	ft^3/s	22	252	83.1
10 Year Peak Flood	116	ft^3/s	43.1	311	64
25 Year Peak Flood	171	ft^3/s	75.3	387	51.5
50 Year Peak Flood	214	ft^3/s	101	455	47.6
100 Year Peak Flood	258	ft^3/s	121	549	47.2
200 Year Peak Flood	306	ft^3/s	142	658	47.7
500 Year Peak Flood	361	ft^3/s	160	817	52

Peak-Flow Statistics Citations

Gotvald, A.J., Barth, N.A., Veilleux, A.G., and Parrett, Charles,2012, Methods for determining magnitude and frequency of floods in California, based on data through water year 2006: U.S. Geological Survey Scientific Investigations Report 2012–5113, 38 p., 1 pl. (http://pubs.usgs.gov/sir/2012/5113/)

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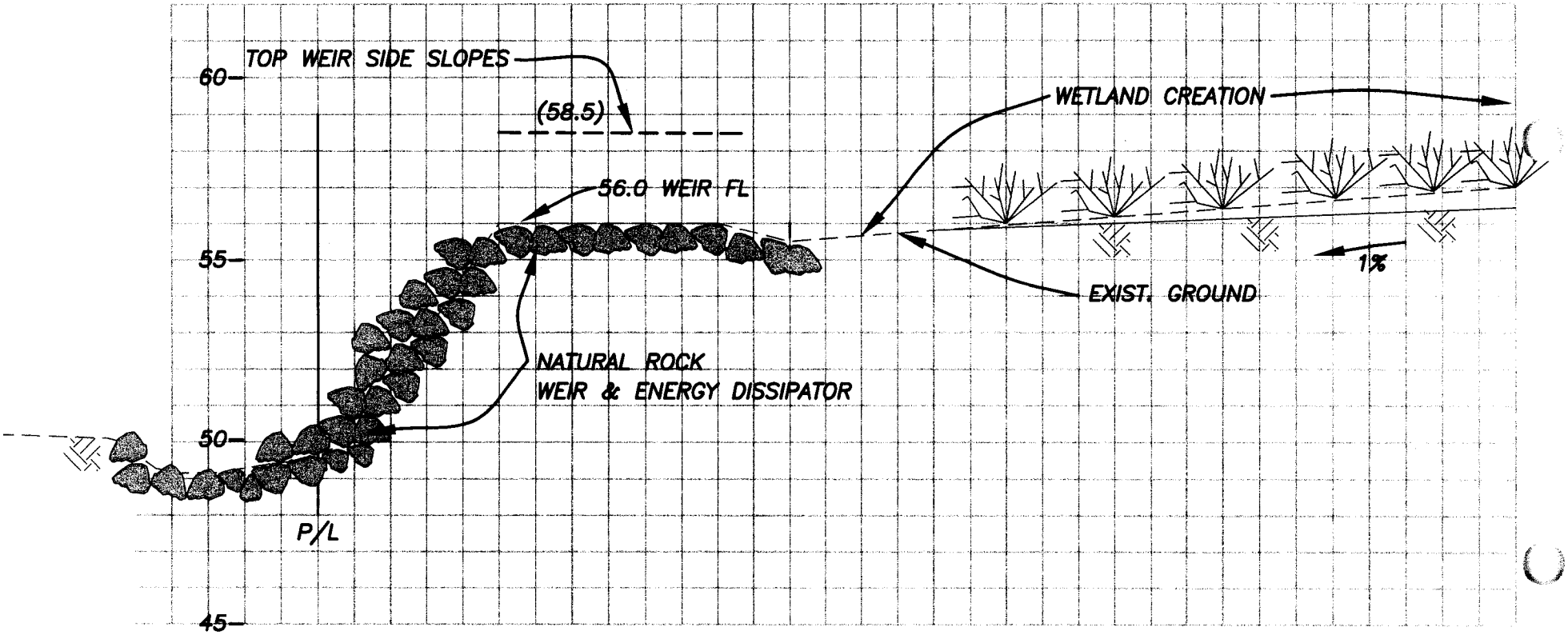
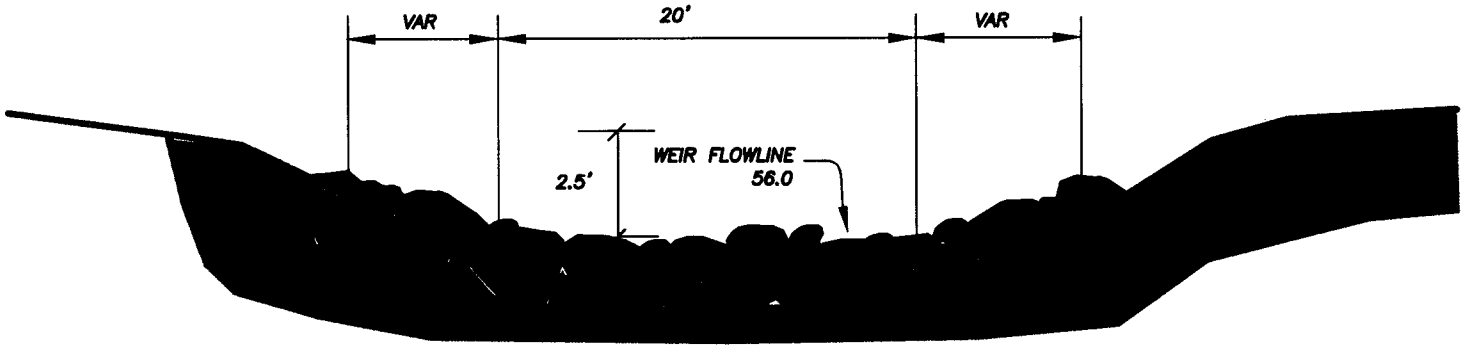
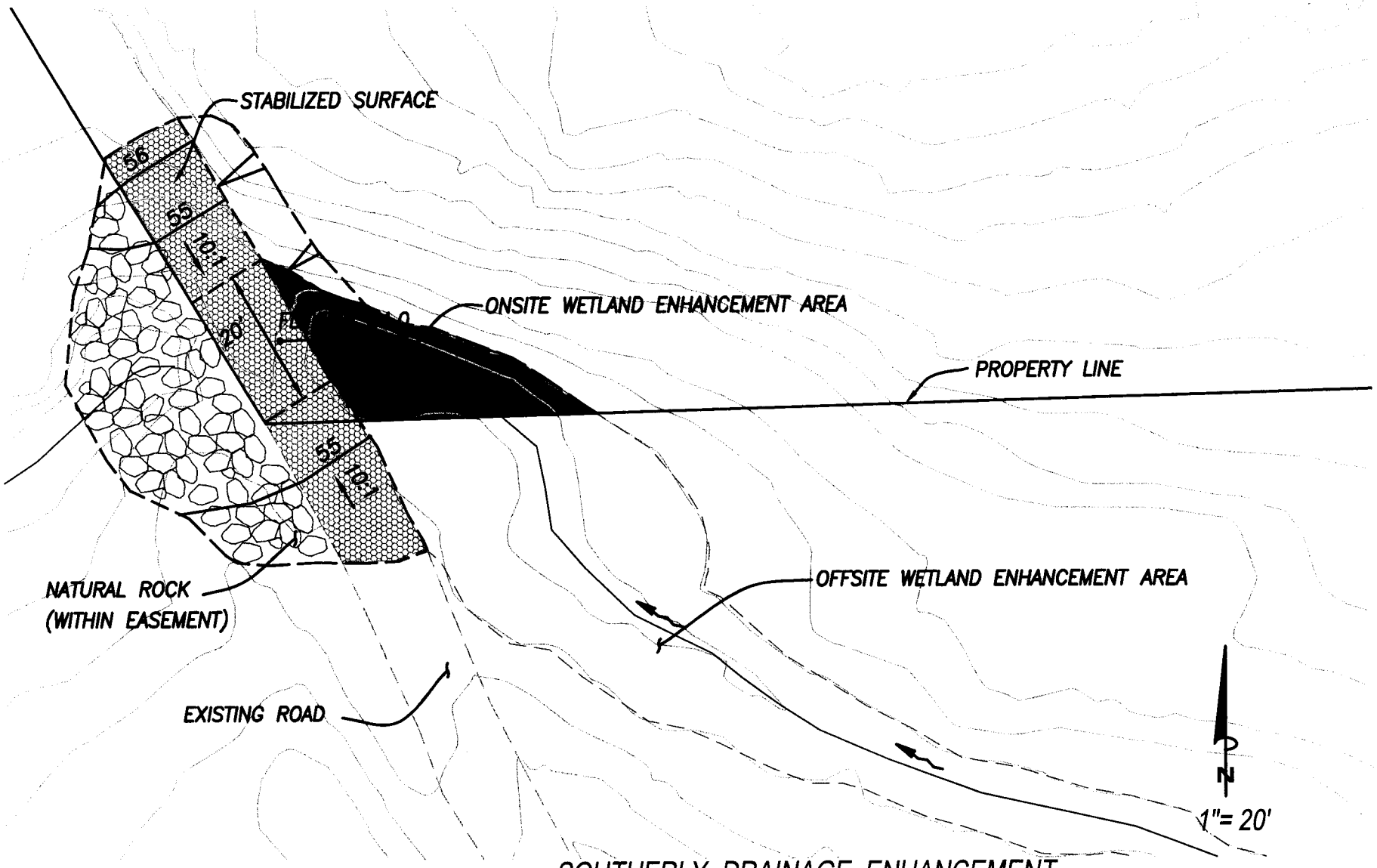
Personal Privacy ex. (b)(6)



PROFILE VIEW
NORTHERLY WEIR



CROSS SECTION
WEIR ⊙ NORTHERLY DRAINAGE



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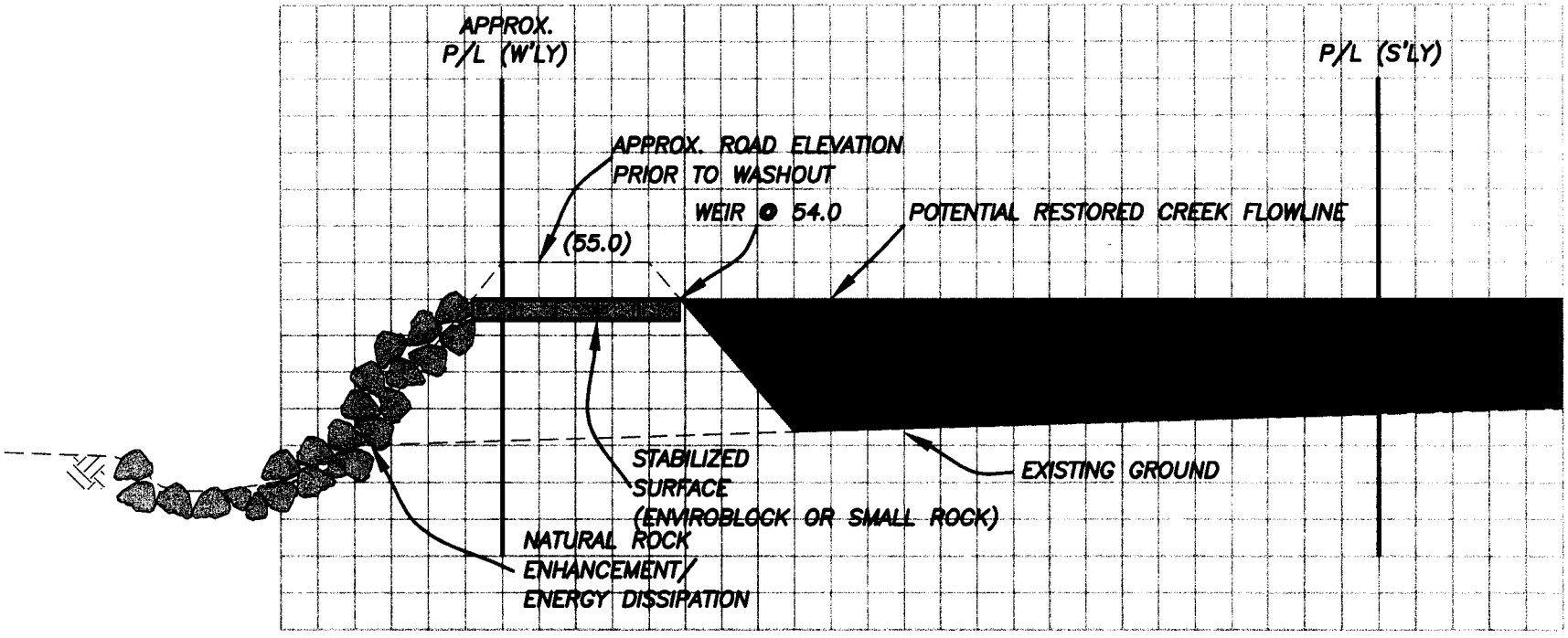
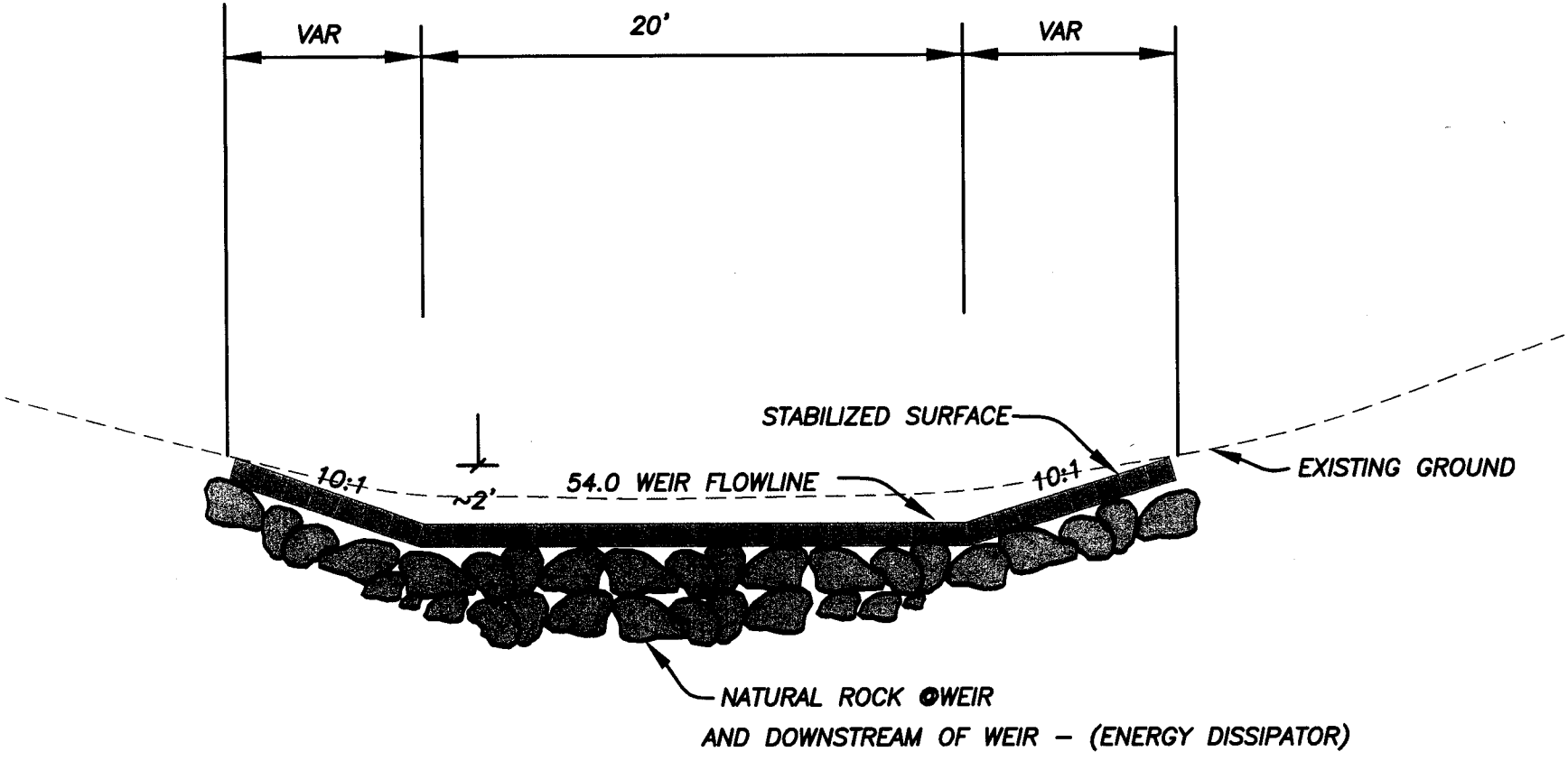
SOUTHERLY DRAINAGE ENHANCEMENT
CONCEPT DRAWING

August 2, 2018

MT. WOODSON - ROCK HAVEN SPRING
MITIGATION PLAN



PROFILE VIEW
SOUTHERLY DRAINAGE ENHANCEMENT



CROSS SECTION
WEIR @ SOUTHERLY DRAINAGE

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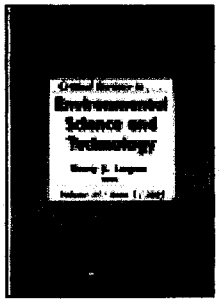

Critical Reviews in Environmental Science and Technology

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Phosphorus Retention in Streams and Wetlands: A Review

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[c] South Florida Water Management District, P. O. Box 24680, West Palm Beach, FL 33416

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Critical Reviews in Environmental Science and Technology, 29(1):83–146 (1999)

Phosphorus Retention in Streams and Wetlands: A Review

K. R. Reddy,[1] R. H. Kadlec,[2] E. Flaig,[3] and P. M. Gale[4]

[1]Soil and Water Science Department, University of Florida, 106 Newell Hall, Gainesville, FL 32611; [2]Department of Chemical Engineering, University of Michigan, DOW Building, Ann Arbor, MI, and Wetland Management Services, Chelsea, MI 48118–9527; [3]South Florida Water Management District, P. O. Box 24680, West Palm Beach, FL 33416; [4]Department of Agriculture and Natural Resources, University of Tennessee—Martin, TN 38238

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ABSTRACT: Wetlands and streams buffer the interactions among uplands and adjacent aquatic systems. Phosphorus (P) is often the key nutrient found to be limiting in both estuarine and freshwater ecosystems. As such, the ability of wetlands and streams to retain P is key to determining downstream water quality. This article reviews the processes and factors regulating P retention in streams and wetlands and evaluates selected methodologies used to estimate P retention in these systems. Phosphorus retention mechanisms reviewed include uptake and release by vegetation, periphyton and microorganisms; sorption and exchange reactions with soils and sediments; chemical precipitation in the water column; and sedimentation and entrainment. These mechanisms exemplify the combined biological, physical, and chemical nature of P retention in wetlands and streams. Methodologies used to estimate P retention include empirical input-output analysis and mass balances, and process kinetics applied at various scales, including micro- and mesocosms to full-scale systems. Although complex numerical models are available to estimate P retention and transport, a simple understanding of P retention at the process level is important, but the overall picture provided by mass balance and kinetic evaluations are often more useful in estimating long-term P retention.

I. INTRODUCTION

Phosphorus (P) is one of the major nutrient-limiting in many freshwater ecosystems. During the last 5 decades, many studies have been conducted to determine the fate of P in freshwater systems, including streams and wetlands (Johnston, 1991; Boers et al., 1993; Reddy and Flaig, 1995). At the landscape level, streams and wetlands form a critical interface between uplands and adjacent water bodies, as all of these ecosystems are hydrologically linked. Water and associated contaminants (such as P) are transported from uplands either by subsurface or surface flow. In the context of adverse environmental and ecological impact, nutrients are considered as contaminants. Surface flow can include first-, second-, and third-order streams as well as the associated riparian floodplains, marshes, and swamps. In low-gradient systems, streams are largely composed of interconnected marshes and swamps. To improve drainage in agricultural areas, ditches are often cut to connect isolated wetlands. The resulting flow of water in the drainage basin

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follows a complex path through wetlands, ditches, and streams. Thus, P loading to the receiving aquatic system depends on the retention capacity of these components of the basin.

Retention is defined as the capacity of streams and wetlands to remove water column P through physical, chemical, and biological processes and retain it in a form not readily released under normal conditions. Retention of nutrients at wetland and stream interfaces decreases the load to downstream aquatic systems (such as lakes, rivers, fjords, and the sea) (Johnston, 1991). Streams and wetlands not only store nutrients but also transform nutrients from biologically available forms into non-available forms and vice versa. Thus, it is important to include the contribution of streams and wetlands in retaining nutrients when developing best management practices for a drainage basin. Land use practices in uplands, along with processes occurring in the streams and wetlands, should all be considered in nutrient management options for a water body. This landscape approach to evaluating the effects of cumulative impacts of wetlands on water quality has been suggested by Whigham et al. (1988).

Best management practices (BMPs) implemented in upland basins may not be adequate to meet discharge water quality requirements. Consequently, to achieve required load reductions, it may be necessary to consider the nutrient retention capacity of wetland and stream systems. The purpose of this article is to: (1) present a critical review of the processes and factors regulating P retention in streams and wetlands, (2) identify and evaluate laboratory and field methods used to estimate P retention, and (3) identify simple models to estimate P assimilation in streams and wetlands.

II. PHOSPHORUS RETENTION MECHANISMS

Phosphorus entering a wetland or stream is typically present in both organic and inorganic forms. The relative proportion of each form depends on soil, vegetation, and land use characteristics of the drainage basin. To trace the transport and transformations of P, it is convenient to classify forms of P entering into these systems as: (1) dissolved inorganic P (DIP), (2) dissolved organic P (DOP), (3) particulate inorganic P (PIP), and (4) particulate organic P (POP) (Figure 1). The particulate and soluble organic fractions may be further separated into labile and refractory components. Dissolved inorganic P is considered bioavailable, whereas organic and particulate P forms generally must undergo transformations to inorganic forms before being considered bioavailable. Other researchers have proposed three size fractions of P: dissolved (DP, < 0.45 μm), fine particulate (FPP, 0.45 μm to 1 mm), and course particulate (CPP > 1 mm) (D'Angelo and Webster, 1991) to help define sedimentation, transportability, and reactivity. However, these size fractions of P are not necessarily indicative of P bioavailability or chemistry. Both biotic and abiotic mechanisms regulate relative pool sizes and

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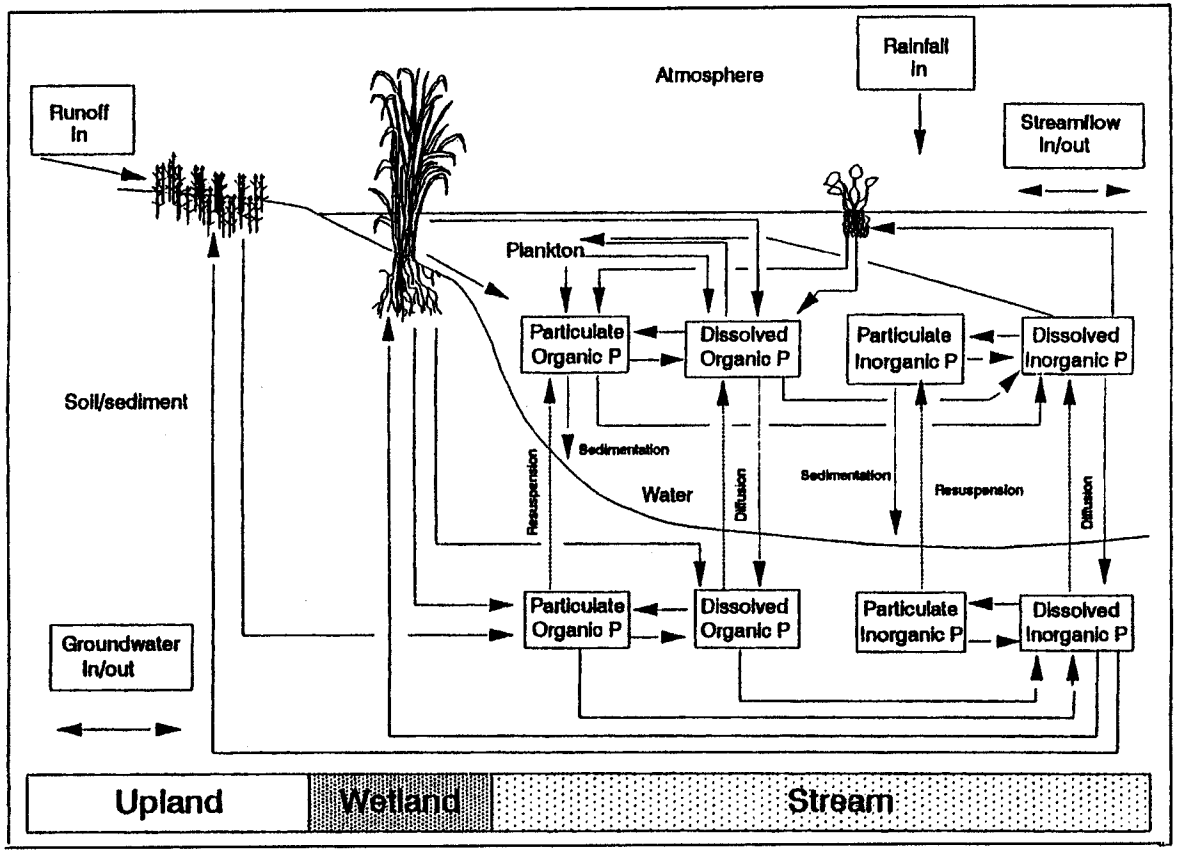

FIGURE 1. Forms and interactions of P in upland, wetland, and stream systems. (From Scinto, 1990.)

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transformations of P compounds within the water column and sediment/soil. Alterations in these fractions can occur during flow in streams and wetlands that depend on the physical, chemical, and biological characteristics of the systems (Meyer and Likens, 1979). Thus, when evaluating P retention capacities of wetlands and streams, both biotic and abiotic processes must be considered. Biotic processes include assimilation by vegetation, plankton, periphyton, and microorganisms. Abiotic processes include sedimentation, adsorption by sediments/soils, precipitation, and exchange processes between soil/sediment and the overlying water column.

A. Assimilation and Release by Vegetation

Phosphorus assimilation and storage in plants depends on vegetative type and growth characteristics. Floating and emergent macrophytes are usually present near shorelines of streams, and the P transported in the stream may not be in direct contact with the plant roots. Submerged vegetation has limited potential for P storage, but can alter the physicochemical environment of water, resulting in chemical precipitation (Reddy et al., 1987). Thus, uptake of P by vegetation is typically minimal in stream systems.

In wetlands, however, vegetation often plays a significant role in P assimilation and storage (Figure 2). Floating macrophytes usually are present in areas with deep water and absorb P directly from the water column. Because of rapid turnover, P storage is short-term, and much of the P is released back into water after upon vegetative decomposition (Reddy and DeBusk, 1987; 1991; Mitsch et al., 1995). Emergent macrophytes have an extensive network of roots and rhizomes and have great potential to store P. They have more supportive tissue than floating macrophytes and have a high ratio of below-ground biomass (roots and rhizomes) to above-ground biomass (stem and leaves), providing ideal anatomical structures for P storage.

Although emergent macrophytes effectively store P, very little of the water column P is directly assimilated by these plants (Richardson and Marshall, 1986). Such plants are rooted in soil, and the majority of their P requirements is usually met from soil porewater P. For example, Correll et al. (1975) found surface roots of *Typha* to be responsible for removal of added ^{32}P, but there was no evidence of direct absorption from the water column. Similarly, Davis (1982) detected only 2 to 4% of added ^{32}P in the living tissue of *Cladium* and *Typha*. Although water column P is not assimilated directly by these plants, active uptake of soil porewater P can potentially establish gradients between the water column and soil/sediment, thus improving overall P retention.

Phosphorus uptake by macrophytes is maximum during the peak growing season, followed by decrease or even cessation in the fall/winter (Wilkins, 1984). Other researchers (Boyd, 1969, 1970, 1971; Garver et al., 1988; Smith et al., 1988) observed that uptake rates of essential nutrients by many aquatic macrophytes are

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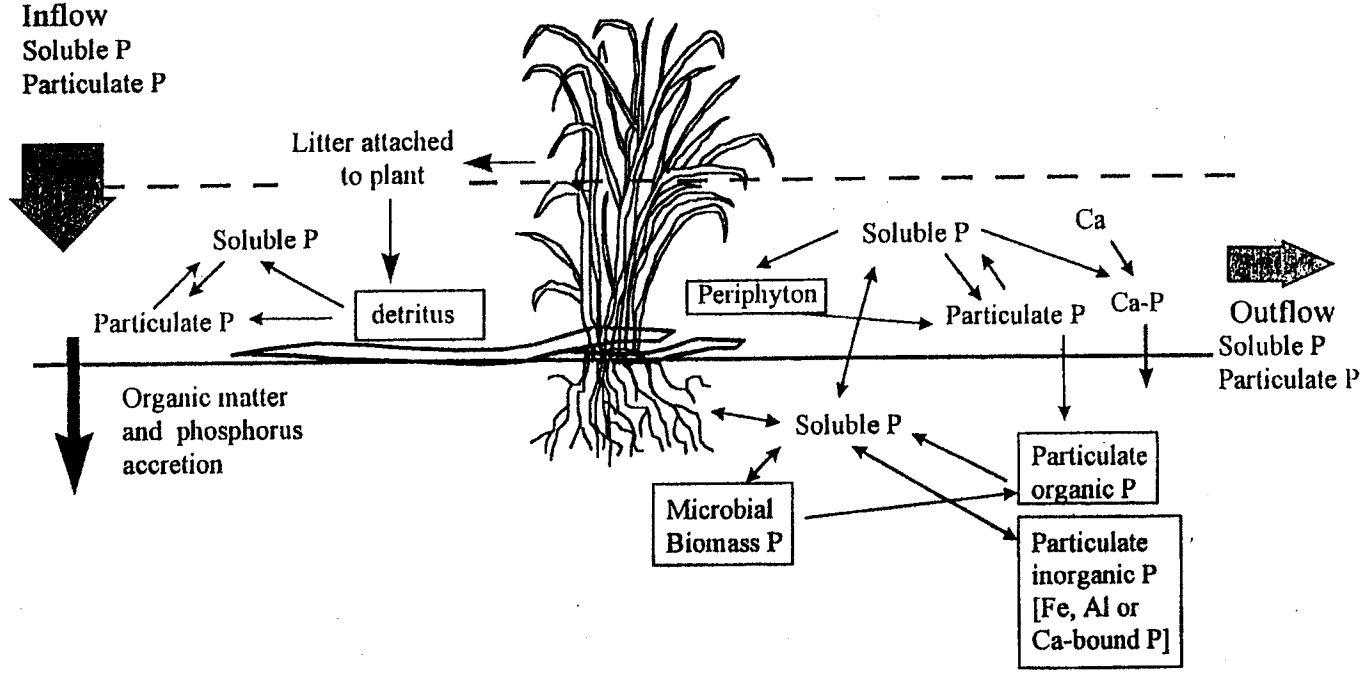

FIGURE 2. Schematic of P cycling as influenced by vegetation components of streams and wetlands.

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highest during early spring growth, before maximum growth rate is attained. This early uptake and storage of nutrients provide a competitive edge for growth-limiting nutrients during the periods of maximum demand (Boyd and Vickers, 1971).

Another important response to seasons is the translocation of nutrients within the plant. Prior to fall senescence, the majority of important ions is translocated from shoot portions to the roots and rhizomes. These stored nutrients are used during early spring growth (Dykyjova and Kvet, 1978; Garver et al., 1988; Smith et al., 1988). Phosphorus storage in vegetation can range from short to long term, depending on type of vegetation, litter decomposition rates, leaching of P from detrital tissue, and translocation of P from above-ground to below-ground biomass. Phosphorus storage in the above-ground biomass of emergent macrophytes is usually short term, with a large amount of P being released during decomposition of detrital tissue. The above-ground parts of most macrophytes grow and die on a cycle ranging from the annual growing season in northern climates to faster cycles in southern climates. Shoot turnover times in subtropical zones are as short as 2 to 3 months (Davis, 1994). Root turnover times are largely unstudied, but are estimated at 1.5 to 3 years (Prentki et al., 1978). In addition, many macrophytes possess the ability to translocate nutrients from above-ground parts to their roots, and to use these stored materials to foster growth during the early part of the growing season. Approximately 45% of the P lost from living *Typha* sp. shoots was translocated to roots and rhizomes (Davis and van der Valk, 1983). Below-ground storage of P is often underestimated, and its fate and stability are not clearly understood.

Unlike emergent vegetation, trees in forested wetlands provide long-term storage. Reported P uptake rates in forested wetlands are 1 to 15 kg ha^{-1} yr^{-1} (Reddy and DeBusk, 1987). Mitsch et al. (1979) reported that net annual uptake of P in a cypress swamp represented 10% of the gross retention by the wetland. Net assimilation of P in wood is small, when compared with leaves, thus a substantial portion of P is recycled in litter fall.

Above-ground vegetation produces detrital material as a result of senescence and frost damage. Most of this detrital material is either attached to the primary plant or detached and deposited on the soil surface. In forested wetlands, detrital production occurs primarily through litter fall. A number of studies have been reported on the breakdown of detrital tissue in lakes, streams, and wetlands (Brinson et al., 1981; Carpenter et al., 1983; Godshalk and Wetzel, 1978; Polunin, 1984; Reddy and DeBusk, 1991; Reddy and Sacco, 1981; Wetzel, 1990). Many studies employed litter bag techniques and measured rapid turnover rates, based on loss in dry weight of detrital tissue. However, this technique may only provide information on the breakdown of large organic compounds into low-molecular-weight organic compounds. These low-molecular-weight organic compounds may readily leach out of the litter bags, thus overestimating the decomposition (mineralization) rate. The detrital tissue deposited on the soil surface is subject to aerobic and anaerobic decomposition, depending on hydrology and availability of alternate electron acceptors (D'Angelo and Reddy, 1994a,b).

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Above-ground plant parts return leached P to the water after death and decomposition and deposit refractory residuals on the soil/sediment surface. However, dead roots decompose underground, therefore adding refractory compounds to subsurface soils and leachates to the porewater in the root zone. Thus, the above-ground portion of the macrophyte cycle returns P to the water, while the below ground biomass returns P to the soil. Nutrient loading to wetlands produces a larger standing crop and stimulates the entire biocycle. Incremental storage of P in biomass occurs due to the stimulation of growth, producing larger quantities of leaves, roots, and litter. Relative rates of biological processes regulating P cycle are speeded up in a system receiving sustained addition of nutrients.

The net effect of vegetation on P retention depends on type of vegetation, root-shoot ratio, turnover rates of detrital tissues, C/P ratio of the detrital tissue, type of metabolic pathways, and physicochemical properties of the water column. Phosphorus is cycled in soil-water-plant components as follows: herbaceous vegetation rooted in soil obtains most of its P needs from the soil porewater and translocates it to above-ground vegetation to support active vegetative growth. After maturity and senescence, a substantial portion of P present in above-ground vegetation is translocated into below-ground biomass (roots and rhizomes). In nutrient-rich systems, up to 80% of the P stored in some aquatic macrophytes detrital tissue is released into the water column either by initial leaching or as a result of decomposition (Reddy et al., 1995a). The residual detrital material is deposited on the soil surface and becomes an integral part of the soil, thus providing long-term storage. However, over the short term, rapid turnover rates and cycling can contribute bioavailable P to the water column and influence water quality.

B. Assimilation and Release of Phosphorus by Periphyton and Microorganisms

Periphyton can be present as floating mats attached to macrophytes or as benthic layer at soil/sediment and floodwater interface. Benthic periphyton utilizes P from both soil/sediment and from the water column (Hansson, 1989). Epiphytic periphyton receive P largely from water column and P released from senescent macrophyte tissue (Riber et al., 1983). A small amount of P is also derived by epiphytic periphyton from living tissue of macrophytes (Carignan and Kalff, 1982). The floating periphyton derives P essentially from the water column. Chemical composition of periphyton varies depending on water column P, water flow, and type of macrophytes (Hansson, 1989). Phosphorus content of periphyton was shown in the range of 0.1 to 4.5 mg g^{1} (dry wt), but the P content of 1.1 to 2.2 mg g^{-1} is necessary for normal growth (Muller, 1983; Riber et al., 1993; Swift and Nicholas, 1987; Grimshaw et al., 1993). High P concentrations reported were the result of 'luxury uptake', which is commonly observed in P-enriched water (Muller, 1983; Riber et al., 1983; Cotner and Wetzel, 1992; Adey et al., 1993).

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Adey et al. (1993) observed P saturation at water column P concentration of 0.025 mg L^{-1}, suggesting that mass loading is more important than water column P concentrations.

Periphyton can play a major role in regulating P concentrations of the water column (Figure 2). Periphyton can assimilate both organic and inorganic forms of P (Bentzen et al., 1992) and can induce marked changes in pH and dissolved oxygen concentration of the water column and the soil-floodwater interface (Carlton and Wetzel, 1988). These changes can potentially influence the solubility of P, especially in streams and wetlands. Periphyton is known to mediate the precipitation of $CaCO_3$ (Gleason, 1972) and to co-precipitate P (Otsuki and Wetzel, 1972). However, in a recent chemical analysis of periphyton obtained from the Florida Everglades, it was found that < 20% of the total P in periphyton was present as P associated with Ca and Mg, whereas the remaining P was in organic forms (Scinto and Reddy, 1995). These results suggest active biological uptake by periphyton.

In wetlands and streams with abundant periphyton activity, much of the P in the water column is intensively recycled within the periphyton component of the system (Wetzel, 1990). Under these conditions, very little of the water column P is assimilated by macrophytes. Additionally, flux of P from the soil to the overlying water column is influenced by periphyton at the soil-floodwater interface, which incorporates much of the P into periphyton mats. During macrophyte senescence, dormancy and decomposition of detrital tissue released P is actively utilized by periphyton communities (Carlton and Wetzel, 1988). In systems dominated by high Ca^{+2} activity, periphyton-induced pH changes can co-precipitate P with $CaCO_3$ within periphyton mats. The periphyton and Ca-P complex is eventually incorporated into soil mass, as evidenced by a linear relationship between long-term Ca and P accumulation in the Everglades ecosystem (Reddy et al., 1993).

The role of microorganisms in the transformation of organic P to inorganic P in soils and sediments has long been recognized. The catabolic activities catalyze the mineralization of organic P, while during growth microorganisms assimilate and transiently store P in their biomass. Bacterial biomass C/P ratio of < 20 indicates P is not limiting in the systems. The biomass C/P ratios were found to be influenced by the redox condition and the presence of selected electron acceptors. For example, C/P ratios of 56, 43, 9, and 6 were observed in a wetland soil maintained under aerobic-, nitrate-, and sulfate-reducing conditions, and methanogenic conditions, respectively (McLatchy and Reddy, 1996). In lake sediments, bacterial biomass P was positively correlated to primary production or organic matter-settling rate (Gachter and Meyer, 1993).

Microorganisms also can play a major role in retaining P in streams with organic matter inputs, such as those receiving leaf litter material from shoreline littoral zone or organic loading from waste effluent (Cooke, 1992; Gachter and Meyer, 1993). Although bacteria are generally considered decomposers that simply mineralize organic P, they have also been shown to regulate the P flux across the sediment-water interface (Kleeberg and Schlungbaum, 1993) and contribute to terminal

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City of Poway
COUNCIL AGENDA REPORT

APPROVED	■
APPROVED AS AMENDED (SEE MINUTES)	☐
DENIED	☐
REMOVED	☐
CONTINUED _____	
Resolution No.	

DATE: January 10, 2017

TO: Honorable Mayor and Members of the City Council

FROM: Robert Manis, Director of Development Services RM

CONTACT: Jeff Beers, Special Projects Engineer
(858) 668-4624 or jbeers@poway.org

SUBJECT: Award of Contract for the Lake Poway Boat Dock Replacement Project; Bid No. 17-011

Summary:
The Lake Poway Boat Dock Replacement Project will replace the existing wooden boat dock with a concrete boat dock, including metal roof shade structures with new lighting and power.

Recommended Action:
It is recommended that the City Council appropriate $96,500 from the Unappropriated General Fund balance (100-8912) to the Lake Poway Boat Dock Replacement capital improvement project bringing the total funds appropriated for this project to $401,500, and award the contract for the Lake Poway Boat Dock Replacement Project to Bellingham Marine Industries, Inc., the lowest responsible bidder, in the amount of $364,100.

Discussion:
The existing boat dock at Lake Poway has outlived its useful life. After years of effort to maintain the existing deteriorated deck, it was determined that the dock was in need of replacement. Staff designed a replacement dock using the existing dock as the model, and advertised for bid in July 2016. The City received three bids ranging from $573,000 to $651,745, exceeding the original project budget of $305,000. Feedback from the bidders indicated that the design did not reflect current industry standards and the design utilized a type of construction that limited flexibility and competition from dock fabricators.

Staff redesigned the project, specifying industry standard components, and opening up the specifications to allow for a wider variety of dock systems. In doing this, the City provided the opportunity for greater bid competition. The bids submitted are much lower but still exceed the project budget.

The replacement dock will have the same number of slips as the current dock and is approximately the same length. The design includes two additional shade structures to protect the battery storage areas and staff from the elements.

The contract time for this project is 170 working days with an Engineer's estimate of $275,000. Construction is scheduled to be complete in early October, 2017. Bids were opened on December 1, 2016. The City received the following four bids:

Company	Bid Amount
Bellingham Marine Industries, Inc.	$364,100.00
Falcon Construction Co.	$476,500.00
London Bridge Marine Corp.	$487,158.56
AToM Engineering Construction, Inc.	$498,398.00

Council Goal:
This item supports Strategy 5.2 "Maintain and refresh City parks, open space, trails and facilities to provide exceptional experiences", as stated in the City's Strategic Plan, and moves the City closer to Goal 5 "Maintain Quality of Life"

Environmental Review:
The proposed dock replacement project is Categorically Exempt from the California Environmental Quality Act (CEQA) as a Class 2 Categorical Exemption pursuant to Section 15302 of the 2016 CEQA Guidelines, in that this project will replace an existing structure with a new structure of substantially the same size, purpose, and capacity.

Fiscal Impact:
Approval of staff recommendation authorizes the appropriation of $96,500 from the Unappropriated General Fund balance (100-8912) to the Lake Poway Boat Dock Replacement capital improvement project (account 1634), bringing the total funds appropriated for this project to $401,500.

Public Notification:
Bellingham Marine Industries, Inc., 8810 Sparling Lane, Dixon, CA 95620

Attachments:
None

Reviewed By:	Reviewed By:	Approved By:
Wendy Kaserman Assistant City Manager	Morgan Foley City Attorney	Tina M. White City Manager

City of Poway
COUNCIL AGENDA REPORT

APPROVED	■
APPROVED AS AMENDED (SEE MINUTES)	☐
DENIED	☐
REMOVED	☐
CONTINUED _____	
RESOLUTION NO.	

DATE: November 21, 2017

TO: Honorable Mayor and Members of the City Council

FROM: Robert Manis, Director of Development Services

CONTACT: Jeff Beers, Special Projects Engineer
(858) 668-4624 or jbeers@poway.org

SUBJECT: Acceptance of the Lake Poway Boat Dock Replacement Project; Bid No. 17-011

Summary:
On January 10, 2017, the City Council awarded the contract for the Lake Poway Boat Dock Replacement Project; Bid No. 17-011, to Bellingham Marine Industries, Inc., in the amount of $364,100.00. This action will accept the project as complete.

Recommended Action:
It is recommended that the City Council:

(1) Accept the Lake Poway Boat Dock Replacement Project as complete;
(2) Authorize the City Clerk to file and record the Notice of Completion;
(3) Authorize the release of the retention in the amount of $18,863.10, if unencumbered, 45 days after City Council acceptance;
(4) Release the Western Surety Company Bond for Material and Labor in the amount of $364,100.00, after the release of retention; and
(5) Retain the Western Surety Company Bond for Faithful Performance for a period of one year.

Discussion:
This project consisted of replacing the existing 40 slip wood boat dock with a concrete dock, the addition of a new metal roof shade structure and a new entry gate.

There were two Change Orders totaling $13,162.13. The Change Orders added roof extensions to the shade structure and grab posts to 14 boat slips. The final contract amount is $377,262.13.

Environmental Review:
The matter of acceptance of public improvements that have been completed, which were the subject of a prior environmental determination, is not subject to the California Environmental Quality Act.

Fiscal Impact:
Sufficient funds are available in Lake Poway Boat Dock Replacement Project account (CIP #1634) for the release of retention.

Public Notification:
Bellingham Marine Industries, Inc., 8810 Sparling Lane, Dixon, CA 95620

Attachments:
None

Reviewed/Approved By	Reviewed By:	Approved By
		Tina M White
Wendy Kaserman Assistant City Manager	Morgan Foley City Attorney	Tina M White City Manager

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone (619) 516-1990 • Fax (619) 516-1994
http://www.waterboards.ca.gov/sandiego/

Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

PROJECT: **Bristol Cove Home Owners Association Dock Replacement**
Certification Number R9-2017-0193
WDID: 9000003247

Reg. Meas. ID: 417989
Place ID: 842734
Party ID: 571032
Person ID: 571033

APPLICANT: **Bristol Cove Home Owners Association**
4525 Cove Drive
Carlsbad, CA 92008

ACTION:

☑ Order for Low Impact Certification	☐ Order for Denial of Certification
☐ Order for Technically-conditioned Certification	☐ Waiver of Waste Discharge Requirements
☑ Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	☐ Enrollment in Isolated Waters Order No. 2004-004-DWQ

PROJECT DESCRIPTION

An application dated December 11, 2017 was submitted by the Bristol Cove Home Owners Association (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Bristol Cove Home Owners Association Dock Replacement Project (Project). The Applicant has also applied for Clean Water Act section 404 Nationwide Permit No. 3 from the United States Army Corps of Engineers for the Project (USACE File Nos. SPL-2017-006604-MRL).

The Project is located within the City of Carlsbad, San Diego County at 4525 Cove Drive. The Project's center reading is at latitude 33.084041, longitude -117.192343

The Applicant has paid all required fees for this Certification in the amount of $1,500.00. On February 21, 2018, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to redeck the 1,140 square foot marina and replace two existing gangways with similar gangways. Proposed work entails the removal of the existing wood deck boards and replace the boards with TREX decking material cut to match each individual slot. The existing 4 foot by 20 foot gangways will be lifted out of the existing hinges and placed on a floating barge that will then be towed to a public launch ramp for removal. New gangways will be placed on the floating barge and towed back to the Project site and inserted into the existing hinges. Work also includes replacement of fascia with douglas fir fascia and installation of new rub strip and rubber corners to the docks. The old dock pieces, fascia, rub strip, and gangways will be recycled and/or properly disposed.

The docks wooden framing is in good condition and will be re-used therefore the marina will be the same dimensions as the existing docks and gangways. There will be no increase in the overwater shade coverage. The Project does not propose to reconfigure the docks and gangways or propose maintenance or installation of pier piles. Project construction will begin once all permits are received and is expected to take one week to complete. No compensatory mitigation is required.

Additional Project details are provided in Attachments 2 of this Certification.

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Attachments:

1. **Definitions**
2. **Project Figures and Plans**

The San Diego Water Board has independently reviewed the record of the Project to analyze the extent and nature of proposed Project impacts to the water quality and beneficial uses of waters of the United States and/or State and associated compensatory mitigation required to offset impacts attributed to the Project. In accordance with this Certification, the Applicant may proceed with the Project under the following terms and conditions:

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.

B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

A. **Term of Certification**. Water Quality Certification No. R9-2017-0193 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.

B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.

C. **General Waste Discharge Requirements**. The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf

D. **Project Conformance with Application**. All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

E. **Project Conformance with Water Quality Control Plans or Policies**. Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.). The Basin Plan is accessible on-line at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

F. **Project Modification**. The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification

G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.

H. **Inspection and Entry**. The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

I. **Enforcement Notification**. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

J. **Certification Actions**. This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:

1. Violation of any term or condition of this Certification;

2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the unnamed tributary to La Posta Creek, the unnamed tributary to the Upper Sweetwater River Water Body, or their tributaries;

3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;

4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and

5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

K. **Duty to Provide Information**. The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.

L. **Property Rights**. This Certification does not convey any property rights of any sort, or any exclusive privilege.

M. **Petitions**. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. PROJECT IMPACTS AND COMPENSATORY MITIGATION

A. **Project Impacts Avoidance.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable. In-water work must not cause a discharge of waste to Agua Hedionda Lagoon.

B. **Eelgrass Impacts and Mitigation**. A pre-construction eelgrass survey must be completed in accordance with the requirements of the California Eelgrass Mitigation Policy (CEMP; National Marine Fisheries Service 2014) by a qualified biologist, prior to initiation of construction activities at the site. This survey must include both aerial and density characterization of the beds. If eelgrass is found during the pre-construction survey, a post-construction survey must be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts must then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, must be mitigated through conformance with the CEMP, which defines the mitigation ratio and other requirements to achieve mitigation for significant eelgrass impacts. If required following the post-construction survey, the CEMP defined mitigation must be developed; submitted and approved by the San Diego Water Board, U.S. Army Corps of Engineers, and National Marine Fisheries Service; and implemented to offset losses to eelgrass.

C. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

IV. MONITORING AND REPORTING REQUIREMENTS

A. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing compliance with all requirements of this Certification to the San Diego Water Board prior to **May 1** of each year following the issuance of this Certification, until the Project has reached completion. The report must include the following information:

1. The names, qualifications, and affiliations of the persons contributing to the report;

2. The status, progress, and anticipated schedule for completion of Project construction activities;

3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and

4. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

B. **Final Project Completion Report**. The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion** of the Project. The final report must include the following information:

1. Date of construction initiation;

2. Date of construction completion;

3. As-built drawings of the Project, no bigger than 11"X17"; and

4. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced.

C. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.

D. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2017-0193:842734:amonji
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), converted to text searchable format using Optical Character Recognition (OCR), and not be password protected. All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Please direct

questions about large document submittal procedures to Mission Support Services staff at (619) 516-1990. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2017-0193:842734:amonji.

E. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

4. A duly authorized representative may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described above.

   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.

   c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

F. **Document Certification Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

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

V. NOTIFICATION REQUIREMENTS

A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be

provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

B. **Caulerpa Taxifolia.** The Applicant must conduct a surveillance-level survey for *Caulerpa taxifolia*, in accordance with the requirements in the National Marine Fisheries Service's *Caulerpa* Control Protocol (version 4), dated February 25, 2008, not more than 90 days before the initiation of construction to determine presence/absence of this species within the immediate vicinity of the project. If *Caulerpa taxifolia* is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both National Marine Fisheries Service and California Department of Fish and Wildlife must be contacted within 24 hours of first noting the occurrence. In the event *Caulerpa taxifolia* is detected, all disturbing activity must cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol.

C. **Anticipated Noncompliance**. The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

D. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:

1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**

3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

E. **Discharge Commencement**. The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

VI. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

A. The City of Carlsbad is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has determined the Project is categorically exempt.

B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has independently determined that the Project is categorically exempt because the Project replaces existing structures located on the same site and the replacement structures will have substantially the same purpose and capacity as the structures being replaced.

C. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Exemption in accordance with CEQA Guidelines section 15062.

VII. SAN DIEGO WATER BOARD CONTACT PERSON

Alan Monji, Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: 619-521-3968
Email: Alan.Monji@waterboards.ca.gov

VIII. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the Bristol Cove HOA Dock Replacement Project (Certification No. R9-2017-0193) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2017-0193 issued on March 14, 2018.

David W. Gibson

DAVID W. GIBSON
Executive Officer
San Diego Water Board

14 March 2018
Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resourcé. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

ATTACHMENT 2

LOCATION MAPS and FIGURES

1. Aerial Image of 4525 Cove Drive, Agua Hedionda Lagoon, Carlsbad, CA.
2. Swift Slip Dock and Pier Builders, Scope of Work, Figure 2, 4525 Cove Dr.

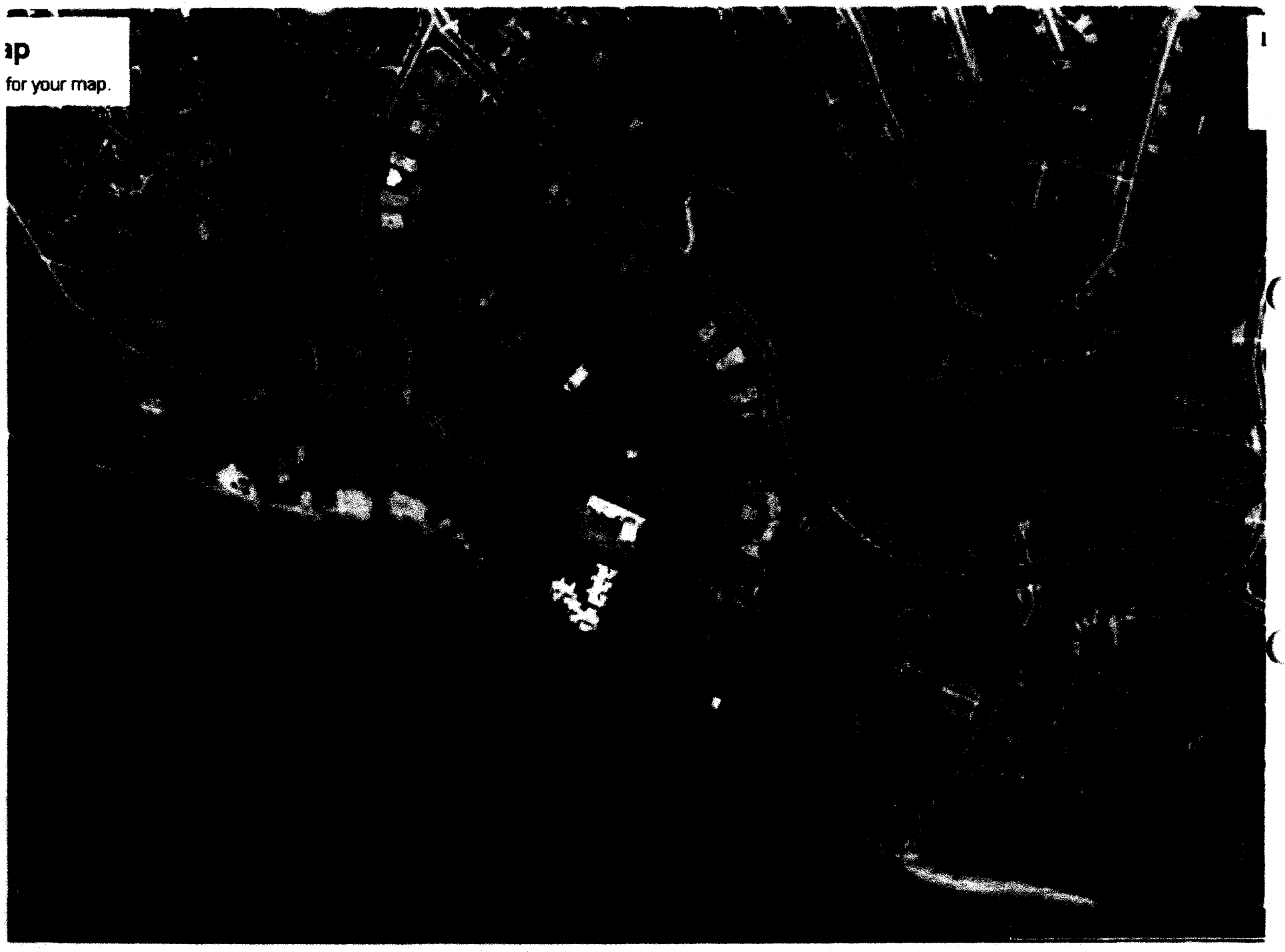
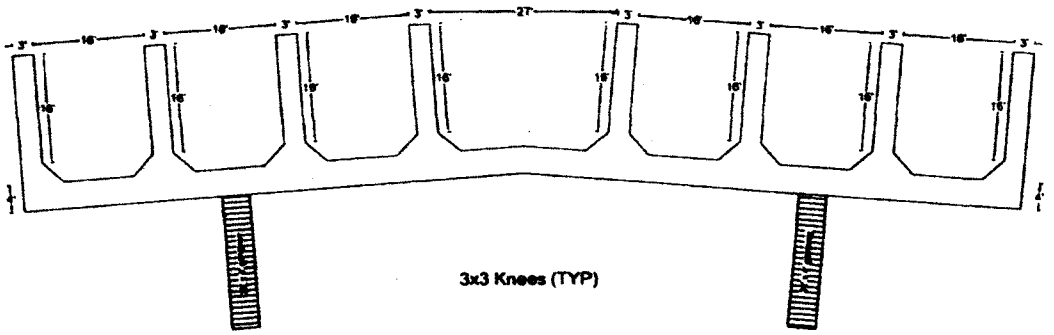

ap
for your map.

Figure 2

SCOPE OF WORK –

Re-deck existing 1,140 sq. ft. marina at 4525 Cove Drive with TREX decking material. No framing work will be performed. Install new Douglas Fir fascia and new rubstrip.

Remove and replace (2) existing 4 x 20 gangways – LIKE FOR LIKE. Re-use good existing gangway hangars in their existing location.



642 Baker St
Costa Mesa, CA. 92626
Phone: (949) 631-3121
Fax: (714) 509-0618

PROJECT: 4525 Cove Drive, Carlsbad, CA				
TITLE: Kuhl	CSE (DRAWN)	(CHECKED)	(REVISION)	8/16/17 (DATE)

REV.	DESCRIPTION:	BY:	DATE:
	AMENDMENTS:		

California Regional Water Quality Control Board

Los Angeles Region

Linda S. Adams
Agency Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Arnold Schwarzenegger
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.waterboards.ca.gov/losangeles

Gary L. Faulconer
Department of Water Resources
34534 116th Street East
Pearblossom, CA 93543

WATER QUALITY CERTIFICATION FOR PROPOSED PYRAMID LAKE BOAT DOCK SEDIMENT REMOVAL PROJECT (Corps' Project No. 2007-01172-KW), PYRAMID LAKE, CITY OF PYRAMID LAKE, LOS ANGELES COUNTY (File No. 07-175)

Dear Mr. Faulconer:

Board staff has reviewed your request on behalf of USDA, Department of Water Resources for a Clean Water Act Section 401 Water Quality Certification for the above-referenced project. Your application was deemed complete on October 26, 2007.

I hereby issue an order certifying that any discharge from the referenced project will comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003 - 0017 - DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges that have received State Water Quality Certification" which requires compliance with all conditions of this Water Quality Certification.

The Applicant shall be liable civilly for any violations of this Certification in accordance with the California Water Code. This Certification does not eliminate the Applicant's responsibility to comply with any other applicable laws, requirements and/or permits.

Should you have questions concerning this Certification action, please contact Valerie Carrillo, Lead, Section 401 Program, at (213) 576-6759.

[Original Signed By]
Tracy J. Egoscue
Executive Officer

February 19, 2008
Date

DISTRIBUTION LIST

Bill Orme
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130

Jeff Humble
California Department of Fish and Game
Streambed Alteration Team
4949 View Ridge Avenue
San Diego, CA 92123

Kenneth Wong
U.S. Army Corps of Engineers
Regulatory Branch, Los Angeles District
P.O. Box 532711
Los Angeles, CA 90053-2325

Eric Raffini (via electronic copy)
U.S. Environmental Protection Agency
600 Wilshire Boulevard, Suite 1460
Los Angeles, CA 90017

Dave Smith
Supervisor, Wetlands Regulatory Office (WTR-8)
US EPA, Region 9
75 Hawthorne
San Francisco, CA 94105

Jim Bartel
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92009

ATTACHMENT A

Project Information
File No. 07-175

1. Applicant: USDA, Department of Water Resources
34534 116th street East
Pearblossom, CA 93543

Phone: (661) 702-1136 x30 Fax: (661) 294-3651

2. Applicant's Agent: Gary Faulkner

3. Project Name: Pyramid Lake USDA Forest Service Boat Dock Sediment Removal

4. Project Location: Pyramid Lake area, Los Angeles County

Longitude in D°M'S"	Latitude in D°M'S"
118°47'4.09"	34°40'44.2"
118°47'4.02"	34°40'42.4"
118°47'3.65"	34°40'40.5"
118°47'2.76"	34°40'40.1"
118°47'2.04"	34°40'44.1"
118°47'1.63"	34°40'42.4"
118°47'1.41"	34°40'40.5"
118°47'1.94"	34°40'40.1"

5. Type of Project: Boat dock maintenance

6. Project Purpose: The purpose of the proposed project is to restore navigation and maintain the areas surrounding the boat dock used by the Forest Service and L.A. County Sheriffs at Pyramid Lake, Emigrant Landing, during normal, low water reservoir levels.

7. Project Description: The proposed project is located at the US Forest Service boat dock, at Pyramid Lake's main boat launch facility. The navigation around the boat dock was severely impaired by the deposition from the bed load which is carried by the Canada de Los Alamos Creek, a tributary to Pyramid Lake.

The construction will include temporary relocation of the boat dock to deeper water, lowering of the reservoir water level to 2554 feet to expose the lakebed and mechanical removal of deposited sediment debris to the upland spoil sites. The sediment removal will occur from the lakebed elevation of 2,568 down to 2,560 feet in the surrounding area of the boat dock. After the reservoir has been lowered to 2554 feet, the "swamp-cat" bulldozers will enter the exposed lakebed and begin moving the sediment material to the crane drag-lone bucket. The crane will remove the material from the lakebed and load it into the waiting dump trucks located on the existing helicopter pad. Upon completion of the sediment removal, the equipment access ramp will be removed, and the surrounding area will be restored to its pre-project conditions; the boat dock will also be moved back to its original location. The proposed project is expected to begin in February 2008 and will take approximately 21 days to complete.

8. Federal Agency/Permit:	U.S. Army Corps of Engineers Individual Permit (Permit No. 2004-01172-KW)
9. Other Required Regulatory Approvals:	California Department of Fish and Game Streambed Alteration Agreement
10. California Environmental Quality Act Compliance:	The proposed project is Categorically Exempt from CEQA pursuant to the CEQA Guidelines, Section (e.g., 15302 Replacement or Reconstruction).
11. Receiving Water:	Pyramid Lake (Hydrologic Unit No. 403.42)
12. Designated Beneficial Uses:	MUN*, IND, PROC, AGR, GWR, FRSH, POW, REC-1, REC-2, WARM, COLD, WILD, RARE *Conditional beneficial use
13. Impacted Waters of the United States:	Lake/Reservoir: 1.60 temporary acres (due to drawdown of the reservoir)

ATTACHMENT A

Project Information
File No. 07-175

14. Dredge Volume:	15000 cubic yards
15. Related Projects Implemented/to be Implemented by the Applicant:	Within the last 2 years, DWR with the assistance of Department of Boating and Waterways has been repairing and upgrading several recreational sites at Pyramid Lake. These include the Vaquero Boat Launch Ramp, the sites at Bear Trap, Yellowbar, Spanish Point and Serrano Beaches. The work included the upgrades of the courtesy boat docks and abutments and at some sites, the armoring of the shoreline with riprap. These were conducted under 401 Certification File No. 04-085.
16. Avoidance/ Minimization Activities:	The Applicant has proposed to implement several Best Management Practices, including, but not limited to, the following:

- Disturbance or removal of vegetation shall not exceed the limits needed to complete the project.
- The work area shall be flagged to identify its limits within the lakebed and shoreline. Vegetation shall not be removed or impacted beyond these limits.
- Staging/storage areas for equipment and materials shall be located outside of the reservoir shoreline and its embankments.
- Vehicles shall not be driven or equipment operated in water covered portions of the reservoir.
- Access to the work site shall be via existing roads and access ramps. A temporary equipment access ramp will be constructed to access the lakebed and will be within the project footprint. Upon project completion, all access ramps will be restored to pre-project condition.
- Spoil storage sites shall not be located within the reservoir or any stream, or where spoil can be washed into the reservoir or stream.
- Preconstruction biological surveys will be conducted one week before work begins. Construction will be monitored by a

qualified biologist.

- During reservoir water level drawdown period, the lake shoreline will be monitored by the resident biologist, and if necessary, any stranded fish will be rescued from any isolated pools created by the receding shoreline.
- All spills will be cleaned up immediately.
- A silt fence and sand bag barriers will be installed around the work and temporary spoil areas before any sediment removal begins.
- No work will take place during any periods of rain events.
- To prevent turbidity, a Storm Water Pollution Prevention Plan will be developed and implemented, and a Notice of Intent will be filed.

17. Proposed Compensatory Mitigation:

The Applicant has proposed to restore all temporarily impacted areas back to pre-project conditions. The proposed project will remove sediment from the reservoir and restore capacity, as well as allow for better boat dock access during low-elevation water levels.

18. Required Compensatory Mitigation:

Since the project impacts are temporary in nature, the Regional Board will not require any additional compensatory mitigation.

See *Attachment B, Conditions of Certifications, Additional Conditions* for modifications and additions to the above proposed compensatory mitigation.

ATTACHMENT B

Conditions of Certification
File No. 07-175

STANDARD CONDITIONS

Pursuant to §3860 of Title 23 of the California Code of Regulations (23 CCR), the following three standard conditions shall apply to this project:

1. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and Article 6 (commencing with 23 CCR §3867).

2. This Certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR Subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. Certification is conditioned upon total payment of any fee required pursuant to 23 CCR Chapter 28 and owed by the Applicant.

ADDITIONAL CONDITIONS

Pursuant to 23 CCR §3859(a), the Applicant shall comply with the following additional conditions:

1. The Applicant shall submit to this Regional Board copies of any other final permits and agreements required for this project, including, but not limited to, the U.S. Army Corps of Engineers' (ACOE) Section 404 Permit and the California Department of Fish and Game's (CDFG) Streambed Alteration Agreement. **These documents shall be submitted prior to any discharge to waters of the State**.

2. The Applicant shall adhere to the most stringent conditions indicated with either this Certification, the CDFG's Streambed Alteration Agreement, or the ACOE Section 404 Permit.

3. The Applicant shall comply with all water quality objectives, prohibitions, and policies set forth in the *Water Quality Control Plan, Los Angeles Region (1994).*

4. The Avoidance/Minimization activities proposed by the Applicant as described in Attachment A, No. **16**, are incorporated as additional conditions herein.

5. The Applicant and all contractors employed by the Applicant shall have copies of this Certification, the approved maintenance plan, and all other regulatory approvals for this project on site at all times and shall be familiar with all conditions set forth.

6. Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the State. At no time shall the Applicant use any vehicle or equipment which leaks any substance that may impact water quality. Staging and storage areas for vehicles and equipment shall be located outside of waters of the State.

7. All excavation, construction, or maintenance activities shall follow best management practices to minimize impacts to water quality and beneficial uses. Dust control activities shall be conducted in such a manner that will not produce downstream runoff.

8. No construction material, spoils, debris, or any other substances associated with this project that may adversely impact water quality standards, shall be located in a manner which may result in a discharge or a threatened discharge to waters of the State. Designated spoil and waste areas shall be visually marked prior to any excavation and/or construction activity, and storage of the materials shall be confined to these areas.

9. All waste and/or dredged material removed shall be relocated to a legal point of disposal if applicable. A legal point of disposal is defined as one for which Waste Discharge Requirements have been established by a California Regional Water Quality Control Board, and is in full compliance therewith. Please contact Rodney Nelson, Land Disposal Unit, at (213) 620-6119 for further information.

10. The Applicant shall implement all necessary control measures to prevent the degradation of water quality from the proposed project in order to maintain compliance with the Basin Plan. The discharge shall meet all effluent limitations and toxic and effluent standards established to comply with the applicable water quality standards and other appropriate requirements, including the provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act. This Certification does not authorize the discharge by the applicant for any other activity than specifically described in the 404 Permit.

11. The discharge shall not: a) degrade surface water communities and populations including vertebrate, invertebrate, and plant species; b) promote the breeding of mosquitoes, gnats, black flies, midges, or other pests; c) alter the color, create visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters; d) cause formation of sludge deposits; or e) adversely affect any designated beneficial uses.

ATTACHMENT B

Conditions of Certification
File No. 07-175

12. The Applicant shall allow the Regional Board and its authorized representative entry to the premises, including all mitigation sites, to inspect and undertake any activity to determine compliance with this Certification, or as otherwise authorized by the California Water Code.

13. Application of pesticides must be supervised by a certified applicator and be in conformance with manufacturer's specifications for use. Compounds used must be appropriate to the target species and habitat. All pesticides directed toward aquatic species must be approved by the Regional Board. Pesticide utilization shall be in accordance with State Water Resources Control Board Water Quality Order Nos. 2004-0008-DWQ and 2004-0009-DWQ.

14. The Applicant shall not conduct any construction activities within waters of the State during a rainfall event. The Applicant shall maintain **a five-day (5-day) clear weather forecast** before conducting any operations within waters of the State.

15. If rain is predicted after operations have begun, activities must cease immediately and the site must be stabilized to prevent impacts to water quality, and minimize erosion and runoff from the site.

16. The Applicant shall utilize the services of a qualified biologist with expertise in riparian assessments as specified in the Project Summary provided with the Certification application. The biologist shall be available on site during project activities as specified in order to ensure that all protected areas are marked properly and ensure that no vegetation outside the specified areas is removed. The biologist shall have the authority to stop the work, as necessary, if instructions are not followed. The biologist shall be available upon request from this Regional Board for consultation within 24 hours of request of consultation.

17. No activities shall involve wet excavations (i.e., no excavations shall occur below the seasonal high water table). A minimum **5-foot** buffer zone shall be maintained above the existing groundwater level. If construction or groundwater dewatering is proposed or anticipated, the Applicant shall file a **Report of Waste Discharge** to this Regional Board and obtain any necessary NPDES permits/Waste Discharge Requirements prior to discharging waste. Sufficient time should be allowed to obtain any such permits (generally 180 days). If groundwater is encountered without the benefit of appropriate permits, the Applicant shall cease all activities in the areas where groundwater is present, file a Report of Waste Discharge to this Regional Board, and obtain any necessary permits prior to discharging waste.

18. All project activities not included in this Certification, and which may require a permit, must be reported to the Regional Board for appropriate permitting. Bank stabilization and grading, as well as any other ground disturbances, are subject to restoration and revegetation requirements, and may require additional Certification action.

19. All surface waters, including ponded waters, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. If surface water diversions are anticipated, the Applicant shall develop and submit a **Surface Water Diversion Plan** (plan) to this Regional Board. The plan shall include the proposed method and duration of diversion activities, structure configuration, construction materials, equipment, erosion and sediment controls, and a map or drawing indicating the locations of diversion and discharge points. Contingency measures shall be a part of this plan to address various flow discharge rates. The plan shall be submitted prior to any surface water diversions. If surface flows are present, then upstream and downstream monitoring for the following shall be implemented:
    - pH
    - temperature
    - dissolved oxygen
    - turbidity
    - total suspended solids(TSS)
    - Downstream TSS shall be maintained at ambient levels
    - Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

    Analyses must be performed using approved US Environmental Protection Agency methods, where applicable. These constituents shall be monitored for on a daily basis during the first week of diversion and/or dewatering activities, and then on a weekly basis, thereafter, until the in-stream work is complete.

    Results of the analyses shall be submitted to this Regional Board by the 15th day of each subsequent sampling month. A map or drawing indicating the locations of sampling points shall be included with each submittal. Diversion activities shall not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any such violations may result in corrective and/or enforcement actions, including increased monitoring and sample collection.

20. The Applicant shall restore **ALL AREAS** of TEMPORARY IMPACTS to waters of the United States and all other areas of temporary disturbance which could result in a discharge or a threatened discharge to waters of the State. Restoration shall include grading of disturbed areas to pre-project contours and revegetation with native species. Restored areas shall be monitored and maintained with native species as necessary for five years. The Applicant shall implement all necessary Best Management Practices to control erosion and runoff from areas associated with this project.

ATTACHMENT B

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21. The Applicant shall submit to this Regional Board **Annual Monitoring Reports** (Annual Reports) by **January 1st /May 1st** of each year for a minimum period of **five (5) years** following this issuance of 401 Certification. The Annual Reports shall describe in detail all of the project/construction activities performed during the previous year and all restoration efforts; including percent survival by plant species and percent cover. At a minimum the Annual Reports shall include the following documentation:

    (a) Color photo documentation of the pre- and post-project site conditions;

    (b) Geographical Positioning System (GPS) coordinates in decimal-degrees format outlining the boundary of the project areas;

    (c) The overall status of project including a detailed schedule of work;

    (d) Copies of all permits revised as required in Additional Condition 1;

    (e) Water quality monitoring results for each reach (as required) compiled in an easy to interpret format;

    (f) A certified Statement of "no net loss" of wetlands associated with this project;

    (g) Discussion of any monitoring activities and exotic plant control efforts; and

    (h) A certified Statement from the permittee or his/her representative that all conditions of this Certification have been met.

22. Prior to any subsequent maintenance activities within the project areas, including clearing, maintenance by-hand, and/or the application of pesticides, the Applicant shall submit to this Regional Board a NOTIFICATION of any such activity. Notification shall include: (a) the proposed schedule; (b) a description of the existing condition/capacity; (c) the area of proposed temporary impact within waters of the State; (c) a description of any existing aquatic resources (e.g., wetland/riparian vegetation); and (d) any proposed compensatory mitigation. Notifications must be submitted a minimum of **three (3) weeks** prior to commencing work activities.

23. All applications, reports, or information submitted to the Regional Board shall be signed:

    (a) For corporations, by a principal executive officer at least of the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates.

    (b) For a partnership, by a general partner.

(c) For a sole proprietorship, by the proprietor.

(d) For a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

24. Each and any report submitted in accordance with this Certification shall contain the following completed declaration:

"I declare under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the _____ day of _____ at _____.

_____ (Signature)
_____ (Title)"

25. All communications regarding this project and submitted to this Regional Board shall identify the Project File Number **07-175**. Submittals shall be sent to the attention of the 401 Certification Unit.

26. Any modifications of the proposed project may require submittal of a new Clean Water Act Section 401 Water Quality Certification application and appropriate filing fee.

27. The project shall comply with the local regulations associated with the Regional Board's **Municipal Stormwater Permit** issued to Los Angeles County and co-permittees under NPDES No. CAS004001 and Waste Discharge Requirements Order No. 01-182. This includes the Standard Urban Storm Water Mitigation Plan (SUSMP) and all related implementing local ordinances and regulations for the control of stormwater pollution from new development and redevelopment. The project shall also comply with all requirements of the National Pollutant Discharge Elimination System (NPDES) **General Permit** for Storm Water Discharges Associated with Construction Activity, Order No. 99-08-DWQ. All stormwater treatment systems shall be located outside of any water of the State and shall not be used as a wetland or riparian mitigation credit.

28. Coverage under this Certification may be transferred to the extent the underlying federal permit may legally be transferred and further provided that the Applicant notifies the

Executive Officer at least 30 days before the proposed transfer date, and the notice includes a written agreement between the existing and new Applicants containing a specific date of coverage, responsibility for compliance with this Certification, and liability between them.

29. The Applicant or their agents shall report any noncompliance. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

30. *Enforcement:*

    (a) In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

    (b) In response to a suspected violation of any condition of this Certification, the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB) may require the holder of any permit or license subject to this Certification to furnish, under penalty of perjury, any technical or monitoring reports the SWRCB deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

    (c) In response to any violation of the conditions of this Certification, the SWRCB or RWQCB may add to or modify the conditions of this Certification as appropriate to ensure compliance.

31. This Certification shall expire **five (5) years** from date of this Certification. The Applicant shall submit a complete application prior to termination of this Certification if renewal is requested.