Prepared for

CG Roxane, LLC

1210 South Highway 395 Olancha, California 93549

# PHASE 3 SITE GROUNDWATER INVESTIGATION REPORT

Olancha Spring Water Bottling Facility 1210 South U.S. Highway 395 Olancha, California

Prepared by



engineers | scientists | innovators

924 Anacapa Street, Suite 4A Santa Barbara, California 93105

October 20, 2016

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#### **Olancha Spring Water Bottling Facility**

1210 South U.S. Highway 395 Olancha, California

Prepared for

**Crystal Geyser Roxane** 

October 20, 2016

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#### **EXECUTIVE SUMMARY**

Geosyntec Consultants, Inc. (Geosyntec), on behalf of Crystal Geyser Roxane (CGR) has completed this *Phase 3 Site Groundwater Investigation Report* (Phase 3 Report) for the CGR Spring Water Bottling Facility (Site) located at 1210 South U.S. Highway 395, near Olancha, California. The Phase 3 Site investigation was conducted in general accordance with the Lahontan Regional Water Quality Control Board's (RWQCB's) Amended Investigative Order R6V-2014-0063A1. The Phase 3 Site investigation was conducted to further evaluate the soil and groundwater conditions in the areas around the former Arsenic Pond, the East Pond, and the Fire Pond. Additionally, the investigation was completed to evaluate groundwater gradient and flow patterns in the upper-most shallow groundwater aquifer. During the Phase 3 Site investigation, soil sampling was conducted near the Fire Pond, groundwater grab samples were collected near the former Arsenic Pond, six additional groundwater monitoring wells were installed, and the third quarter 2016 monitoring event was conducted.

Results of soil samples collected near the Fire Pond indicate concentrations of arsenic and molybdenum are representative of naturally occurring regional background levels that are higher than the median California background levels. The distribution and concentrations of the detected metals in soil and groundwater indicate that there have been no significant impacts due to waste water discharges near the Fire Pond.

The RWQCB required soil samples near the Fire Pond due to an unsubstantiated thirdparty report that CGR allegedly disposed of arsenic filter media in the area. Surface soil samples were collected in an area northeast of the southern bottling facility as a split sample with the RWQCB to determine whether uncontrolled releases of arsenic containing materials historically occurred in this area. There was no evidence of a release was found based on the soil sampling.

Soil vapor sampling was conducted near the valve distribution box. Low detections of several volatile organic compounds (VOCs) were detected; however, all soil vapor sample results were consistently lower than the most conservative screening levels for residential vapor intrusion concerns. Based on the soil vapor sample results and the soil and groundwater sample results, there has not been a significant release of VOCs.

The groundwater gradient in the area of the former Arsenic Pond and East Pond was calculated to be towards the northeast at a magnitude of approximately 0.009 feet/ft. A significant upward groundwater gradient is observed in the vicinity of the former Arsenic Pond. The groundwater gradient in the area of the Fire Pond is towards the northeast at a magnitude of approximately 0.005 feet/ft.

The groundwater grab results from the Phase 3 investigation indicate that elevated dissolved arsenic concentrations are present at the Site. The results suggest that naturally occurring arsenic concentrations associated with the fine-grained lacustrine (lake bed)

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deposits are highly elevated. Elevated concentrations of arsenic are also detected near the former Arsenic pond. Based on the naturally occurring arsenic concentrations in the Site vicinity (Cabin Bar Ranch and nearby Owens Dry Lake areas), any potential impacts from the former Arsenic Pond to shallow site groundwater appear to be within natural background concentrations. The basis for natural background concentrations of arsenic are presented in Geosyntec's *Technical Memorandum – Arsenic Distribution and Background Analysis at the CGR Facility in Olancha, CA*, (Geosyntec, 2016b). Gradient data and groundwater modeling indicate that groundwater near the former Arsenic Pond will migrate any high concentrations of arsenic to an area beneath the Owens Dry Lake where concentrations of arsenic are one to two orders of magnitude higher than concentrations found on Site. Groundwater originating at and near the former Arsenic Pond will not impact any water supply wells in the area and, based on current information, no known material harm to the environment or reasonably foreseeable beneficial uses for waters of the State have occurred.

#### 1.0 INTRODUCTION, OBJECTIVES, AND REPORT ORGANIZATION

Geosyntec Consultants, Inc. (Geosyntec), on behalf of Crystal Geyser Roxane (CGR), is pleased to present the following *Phase 3 Site Groundwater Investigation Report* (Phase 3 Report) for the CGR Spring Water Bottling Facility (Site) located at 1210 South U.S. Highway 395, near Olancha, California.

The Phase 3 groundwater investigation was performed to address the requirements of the Lahontan Regional Water Quality Control Board (RWQCB) Investigative Order Number R6V-2014-0063 (Order) dated July 24, 2014 and an e-mail from Ms. Lisa Scoralle of the RWQCB dated October 26, 2015. The October 2015 e-mail presented comments on Geosyntec's Phase 2 Site Investigation (Geosyntec, 2015b) and requested additional investigation related to soil, soil vapor, and groundwater at and near the Facility.

The scope of work for the Phase 3 investigation was presented in the *Revised Additional Site Investigation Work Plan* (workplan) dated December 29, 2015 and revised July 13, 2016 (Geosyntec, 2016). The workplan was approved by the RWQCB in correspondence dated July 11, 2016.

The scope and objectives of the work implemented were in general accordance with the approved workplan and included:

- Sample soil adjacent to the Fire Pond (B-01) to evaluate elevated concentrations detected during the Phase 2 Investigation;
- Collection of groundwater grab samples and installation of an upgradient monitoring well (MW-15) screened in the deeper portion of the shallow aquifer to evaluate vertical distribution of arsenic in groundwater in the vicinity of the former Arsenic Pond;
- Install five additional groundwater monitoring wells (MW-10 through MW-14) to further characterize the shallow groundwater quality around the Fire Pond, former Arsenic Pond, and East Pond; and
- Continue routine groundwater monitoring including collection of groundwater samples from fifteen groundwater monitoring wells and soil vapor from one soil vapor probe.

In addition to the approved written scope of work, additional groundwater grab samples were collected from new monitoring well locations based on RWQCB correspondence in areas upgradient, cross-gradient, and downgradient to the former Arsenic Pond.

#### The Phase 3 Report has been organized as follows:

- Section 1. *Introduction, Objectives, and Report Organization.*
- Section 2.0. –*General Site Information*. This section includes a general description of the site location, site topography and site features such as surface water, structures, and wells.
- Section 3.0 *Previous Site Hydrogeologic Studies*. A summary of the previous investigations is presented.
- Section 4.0. *Site Geology and Hydrogeology*. This section includes a brief description of the regional and Site geology and hydrogeology including regional watershed information.
- Section 5.0. *Field Methodology*. Procedural information on drilling and well installation in addition to soil, soil vapor, and water sampling is presented.
- Section 6.0. *Investigation Results*. This section presents the results of the drilling, groundwater monitoring well installation, groundwater level gauging, and soil, soil vapor, and groundwater sample analyses.
- Section 7.0. *Data Evaluation and Conclusions*. A discussion of the Site hydrogeology, soil conditions, soil vapor conditions, and groundwater quality conditions is presented, including comparison of sample results to established screening levels and maximum contaminant levels (MCLs). This section also provides conclusions regarding potential impacts based on the investigative data generated to date.
- Section 8.0. *Recommendations*. This section provides recommendations for additional Site monitoring work.
- Section 9.0. *References*

#### 2.0 GENERAL SITE INFORMATION

The Site is an irregularly-shaped property that consists of approximately 170 acres adjacent to Highway 395 approximately 3 miles north of Olancha, California (**Figure 1**). CGR operates a spring water bottling facility using groundwater production wells for bottled spring water supply and for domestic and industrial purposes. The facility consists of two large bottling-production and warehouse buildings, CGR North and CGR South, containing a total of six main bottling production lines. A full description of the bottling facility waste discharge systems and processes was submitted in the *Facility Waste Generation and Discharge Systems Report* (CGR, 2014). The facility pumps groundwater from production wells located on the property for spring water bottling and domestic/industrial uses.

Regionally, the Site is located in the southern portion of the Owens Valley. Owens Lake (dry lake bed) is located east of the Site, and the base of the Sierra Nevada Mountains is located 1 mile west of the Site. Highway 395, which runs north-south, crosses the western portion of the Site (**Figure 1**). The Los Angeles Aqueduct is located approximately ½-mile west of the Site.

In 2010, CGR purchased the Cabin Bar Ranch property located directly to the north of the Site. The town of Cartago is located to the north of the Cabin Bar Ranch. The Cartago Mutual Water Company (CMW) owns two wells, CMW-1 and CMW-2, located approximately 3,500 feet north of the northern Site boundary in the town of Cartago. CMW-1 was installed to a depth of approximately to 250 or 325 feet. CMW reports that CMW-2 is currently used to supply water to approximately 43 residences in the town of Cartago.

There are numerous other private domestic wells located in the town of Cartago. Based on a survey conducted by CGR in which available County files were reviewed (by permission of the individual residences) and a private residence survey was completed, it is estimated that there are currently 14 active private wells in Cartago. The pumping in the CMW wells and the 14 active private wells are the only known significant groundwater withdrawals in the area surrounding the Site. These wells are all located a minimum of approximately 3,500 feet north of the Site. A summary of CGR production wells and observation wells for the Site and municipal/private wells in the surrounding area were presented in Geosyntec's *Phase 2 Site Groundwater Investigation Report*, dated August 14, 2015 (Geosyntec, 2015b).

#### 3.0 PREVIOUS SITE HYDROGEOLOGIC STUDIES

There have been numerous previous hydrogeologic Site studies relating to the CGR spring water bottling operations. These hydrogeologic studies and associated reports were listed in the Phase 2 Report (Geosyntec, 2015b). More recently, several workplans and investigation reports were prepared in response to orders by the RWQCB. These work plans and reports were listed in the Phase 3 workplan (Geosyntec, 2016).

To date, there have been three phases of site investigation in response to RWQCB requirements. The Phase 1 field investigation as documented in the *Phase 1 Site* Groundwater Investigation Report, dated February 16, 2015 (Geosyntec, 2015a), was completed as a screening evaluation to preliminarily evaluate the groundwater conditions in the areas around the former Arsenic Pond, the East Pond, and the Fire Pond, as well as near the cooling tower on the north side of the northern site bottling facility. A total of ten grab groundwater samples were collected to gather screening level data in order to better evaluate groundwater quality conditions and identify appropriate locations for groundwater monitoring wells. Additionally, production waste water samples were collected from both the northern and southern bottling plants and at water discharge locations of the former Arsenic Pond, the East Pond, and the Fire Pond for characterization and comparison to groundwater quality. The results of the Phase 1 investigation indicated that the primary constituents of concern in groundwater in the investigation areas are metals. Of the metals detected, the primary metal of concern exceeding its corresponding Maximum Contaminant Level (MCLs) was arsenic. Additionally, elevated concentrations of sulfate and total dissolved solids (TDS) were also detected at concentrations exceeding their secondary MCLs in borings adjacent to the former Arsenic Pond. Based on the data collected during the Phase 1 investigation, installation of groundwater monitoring wells was recommended for the areas surrounding the former Arsenic Pond, the East Pond, and the Fire Pond to verify the Phase 1 screening data.

The Phase 2 field investigation was conducted in June and July 2015 to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the former Arsenic Pond, the East Pond, and the Fire Pond. The monitoring wells and soil vapor probe sampling locations were selected based on data obtained from the Phase 1 investigation. Additionally, quarterly groundwater monitoring was begun in 2015. During the Phase 2 investigation, a total of nine groundwater monitoring wells and one temporary soil vapor probe were installed and soil, soil vapor, and groundwater samples were collected and analyzed. Findings from the Phase 2 investigation include the following:

• The groundwater gradient in the area of the East Pond and former Arsenic Pond was calculated to be 0.006 to 0.007 ft/foot towards the northeast.

- Of the metals detected in soil, only detections of arsenic and molybdenum exceeded the California median background for soil concentrations (UCR/DTSC, 1996). Arsenic exceeded the median background concentration in soil samples collected across the site; however, the potential for higher naturally occurring arsenic in site soil are discussed in Section 4. Molybdenum exceeded the medium background concentration in one sample collected from boring MW-01. Geosyntec concluded that the distribution and concentrations of the detected metals did not indicate a significant release to soil due to waste water discharges at the Site. However, the RWQCB, in their e-mail dated October 26, 2015, opined that anomalously high metal concentrations were detected in a soil sample collected near the Fire Pond relative to other soil samples collected at the site.
- Soil vapor sample results from probe SV-01 located adjacent to the former Arsenic Pond were lower than conservative residential screening levels used to assess vapor intrusion potential.
- The groundwater sample analytical results did not contain detections of VOCs or SVOCs indicating there are no significant VOC or SVOC impacts to groundwater due to waste water discharges at the site.
- Concentrations of metals in groundwater, in particular, antimony and arsenic were detected at concentrations exceeding their MCLs of 6 and 10 micrograms per liter (μg/L), respectively. The elevated occurrences of antimony and arsenic, as documented in quarterly groundwater sampling events, were primarily located in wells located adjacent and downgradient of the former Arsenic Pond (wells MW-04, MW-05, and MW-09) and in an area of lower quality groundwater toward Owens Dry Lake.
- Elevated concentrations of sulfate and TDS were also detected at concentrations exceeding their upper secondary MCLs in monitoring wells located adjacent to the former Arsenic Pond (MW-04, MW-05, and MW-09). Chloride was also detected above the secondary MCL in MW-06.

Groundwater monitoring has occurred on a quarterly basis since the third quarter of 2015. The documented groundwater gradient is consistently towards the northeast (Owens Dry Lake) and groundwater elevations fluctuate seasonally, with decreases observed during the second and third annual quarters and increases observed during the first and fourth annual quarters. In general, arsenic concentrations in the Site monitoring wells are stable or decreasing and other detected compounds are generally similar between monitoring events.

#### 4.0 SITE GEOLOGY AND HYDROGEOLOGY

#### 4.1 <u>Regional Geology</u>

The Site is located in the southern portion of the Owens Valley which has a length of 150 miles and width of generally less than 8 miles. The Owens Valley is the westernmost valley of the Basin Range Province and is formed by the Sierra Nevada Mountains to the west and the White/Inyo Mountains to the east. The Sierra Nevada Mountains are generally composed of Mesozoic age igneous rocks of granodiorite-granite composition whereas the White/Inyo Mountains, to the east, consist of Pre-Cambrian to Triassic sedimentary rock locally intruded with Mesozoic granitic rocks.

Structurally, the Owens Valley is a graben bounded by the Sierra Nevada Frontal fault and the Inyo Mountain Frontal fault. These faults are considered active and the offset on these faults is the cause of the dramatic relief in the Owens Valley area. The Site is located on the valley floor at an elevation of approximately 3,640 feet, while Olancha peak, to the west of the Site in the Sierra Nevada Mountains, stands at an elevation of over 12,000 feet. The Inyo Mountains east of the Site have an elevation greater than 8,000 feet.

The California Department of Water Resources (DWR, 2003) shows the Site to be located in the southern portion of the Owens Valley Groundwater Basin. The groundwater basin has a surface area of 1,030 square miles and includes valleys in both Mono and Inyo County. The basin, as defined by the Department of Water Resources, is bounded to the south by the Coso Range, the Sierra Nevada to the west, the White/Inyo Mountains to the east, and the Benton Range to the north. Groundwater occurs in the sediments that fill the valley.

#### 4.2 Site Hydrogeology

Based on the previous investigations, (see Section 3.0), the following description provides the basis of understanding for the Site hydrogeology. Further discussion of the Site hydrogeology based on the results of the Phase 3 investigation is presented in Section 6.2.3.

The most important water bearing formation in the vicinity of the Site is alluvium consisting of sands and gravels derived from erosion of Sierra Nevada Mountains to the west. The upper zone of the alluvial aquifer, in which the westernmost Site production wells are installed, is unconfined. Deeper zones of water bearing alluvium beneath the Site are under semi-confined conditions. The sandy and gravelly alluvium is locally interbedded or interfingered with fine-grained lacustrine (lake) deposits. Fine-grained lacustrine deposits increase in occurrence and thickness to the east towards Owens Dry Lake (GSI, 1983). The thickness of the alluvial and lacustrine sequence is thought to be

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several thousand feet thick and up to 6,000 feet or more in the middle of the Owens Dry Lake (Pakiser et. al., 1964).

The primary source of groundwater recharge in the Owens Valley Groundwater basin is from percolation of stream flow from the Sierra Nevada range. In the case of the Site and the Cartago area, the main aquifer is thought to recharge primarily by flow in Olancha Creek, Cartago Creek, and Walker Creek that have watersheds to the west of the Site in the Sierra Nevada Mountains. Stream flow in these creeks is derived from precipitation in the mountains and infiltrates through relatively permeable alluvium closer to the valley floor. There is also thought to be some recharge of the alluvium from underflow of groundwater in fractures in the mountain bedrock, although the volume of such recharge is not known. Recharge of direct precipitation into the alluvium may also contribute a relatively small component of recharge into the groundwater basin.

Groundwater in the shallow unconfined aquifer is the source for numerous springs and seeps that collectively form along a north-south trending fault (a part of the Sierra Nevada Frontal fault system). The north-south trending fault is known locally as the "Spring-line fault" (**Figure 2**). The former Arsenic Pond and East Pond are located east of the fault, whereas the Fire Pond is located west the fault. The fault is inferred to cause a "damming" effect and the subsequent rise of groundwater to the surface creates the large linear spring areas or spring seeps (Dames and Moore, 1991). Production wells that have been installed by CGR draw water from the shallow unconfined aquifer in hydraulic connection with the spring water. Wells used for spring water production are all located west of the Spring-line fault.

Monitoring wells, OW-8U, OW-8US, OW-8D and OW-9U were installed east of the Spring-line fault. These wells are screened at depths of 55 – 75 feet below ground surface (ft bgs) for wells OW-8US and OW-9U, to 190 – 230 ft bgs for well OW-8U, and 582 – 642 ft bgs for well OW-8D. Groundwater in these wells has a significant upward gradient (potentiometric surface higher than ground level) and the well screens were not installed in the upper-most portion of the aquifer; therefore, the groundwater from these wells is not representative of the conditions of the upper-most aquifer.

Based on an extensive hydrogeological investigation conducted at the Site in 1991 by Dames and Moore, the groundwater gradient west of the Spring-line fault in the Site vicinity was calculated to be to the northeast towards Owens Dry Lake at a gradient of approximately 0.007 (see Figures 3 and 4 in Dames and Moore, 1991). More recently the groundwater gradient in the central portion of the Cabin Bar Ranch located north of the Site was calculated to be 0.015 to the east also toward Owens Dry Lake (Geosyntec, 2011). Additional discussion of the shallow groundwater gradient from data collected during the Phase 3 investigation areas is discussed further in Section 6.2.3.

Groundwater quality is an important component of the Phase 3 groundwater investigation. Generally, concentrations of TDS, sodium, carbonate, and metals, including arsenic in the Shallow Zone substantially increase to the east toward Owens Dry Lake where up-flow of groundwater and evaporation processes have created salt pans. As noted in previous reports (Geosyntec, 2015a and 2015b) and based on previous investigations at the site, arsenic is well known to be a naturally occurring element in the soil, alluvium, and groundwater in the region of the Site. Generally, elevated arsenic concentrations (> the MCL) are characteristic of groundwater derived from the Eastern Sierra Nevada watershed. Site production wells located west of the Spring-line fault, which produce from deeper portions of the Shallow Zone, have arsenic in the approximate range of 16 to 28 μg/L<sup>1</sup>. It is reasonably concluded that naturally occurring arsenic concentrations in groundwater increases eastward of the Spring-line fault as a result of the increasing presence of the lacustrine sediments toward Owens Dry Lake. Shallow groundwater sampling (< ~10 feet) by others beneath the eastern portion of Owens Dry Lake documented arsenic concentrations in the range of 1,400 –163,000 µg/L (Levy et. al., 1999). Levy et. al. also reports very high salinity [up to 300,000 milligrams per liter (mg/L)] in the shallow Owens Dry Lake groundwater. Further, arsenic concentrations in shallow groundwater in the southern Owens Dry Lake area, i.e. the Dirty Socks-Cartago Creek Area near the Site, average 32,055 µg/L at 4 ft bgs and 5,596 µg/L at 10 ft bgs (Great Basin Unified APCD, 2009). Again, it is very likely that these elevated concentrations are associated with the fine-grained lacustrine deposits and salt deposits. Thus, as the presence of these layers increases, it is expected that naturally occurring arsenic concentrations as well as TDS will likewise increase substantially. However, this expected eastward increase in arsenic and salinity is a general trend that is locally dependent on the volume of fine-grained lacustrine sediment and its impact of groundwater encountered in each area.

As noted in the previous paragraphs, the former Arsenic Pond and East Pond are located east of the Spring-line fault. The groundwater gradient in this area is towards the northeast. Therefore, migration of groundwater containing elevated arsenic and other compounds is towards Owens Dry Lake where groundwater is extremely saline with elevated natural concentrations of arsenic in the shallow groundwater. Although the shallow groundwater in the Owens Valley Groundwater Basin is designated for beneficial use, the groundwater beneath the Owens Dry Lake proximal to the Site is not currently nor can foreseeably be used as a drinking water or agricultural resource.

As presented in Geosyntec's *Phase 3 – Additional Site Investigation Work Plan Addendum*, dated March 30, 2016 (Geosyntec, 2016), the Site groundwater model was updated to determine the following:

<sup>1</sup> Range of arsenic concentrations based on annual sample results in 2012 and 2013 from CGR production wells CGR-1, CGR-3, CGR-5, CGR-6, and CGR-7.

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- 1) Maximum potential groundwater extraction in CGR production wells does not significantly impact the groundwater flow direction east of the Spring-line fault,
- 2) Groundwater pumping at the Site and projected maximum groundwater production at the Cabin Bar Ranch does not produce a capture zone that draws water from east of the Spring-line fault, and
- 3) The particle track estimation for non-retarded groundwater flow shows that the path of groundwater from the area around the former Arsenic Pond migrates northeast towards Owens Dry Lake, and is not influenced by pumping at the Site or at Cabin Bar Ranch.

#### 5.0 FIELD METHODOLOGY

The following sections describe the general procedures for the Phase 2 field work. The Phase 3 borings and well locations are shown on **Figure 2**.

#### 5.1 Health & Safety Plan

A site-specific Health & Safety Plan (HASP) was prepared for Geosyntec personnel. Sub-contractors working on the project provided their own personnel with HASPs. All site personnel had 40-hour health and safety training (CFR 1919.120).

#### 5.2 Well Permitting

Prior to mobilizing to the Site, Geosyntec applied for and obtained monitoring well permits from the County of Inyo Environmental Health Department. Copies of the well permits are provided in **Appendix A**.

#### 5.3 Drilling, Soil Logging, and Soil and Groundwater Grab Sampling

Two soil borings and six monitoring well borings were continuously cored using a direct push rig operated by Gregg Drilling and Testing, Inc. between August 22 and August 30, 2016. Drilling, sampling, and decontamination procedures were conducted in accordance with the standard operating procedure (SOP) provided in Appendix C of the Phase 1 Workplan (Geosyntec, 2014). All re-useable equipment was decontaminated

During drilling, the field geologist prepared a boring log describing soil lithology and well construction logs documenting the monitoring well construction details. Soil lithology was logged in general accordance with the Unified Soil Classification System under the supervision of a licensed Professional Geologist. Lithologic boring logs are included in **Appendix B**.

Soil samples were collected from boring B-01 by cutting approximately a 6-inch undisturbed section of the continuously cored acetate liners. The ends of the soil cores were covered with Teflon tape, capped, and placed in a cooler for transport to the analytical laboratory. Additionally, two soil samples, SS-01 and SS-02, were collected in an area of exposed soil northeast of the southern bottling facility per a direct onsite request from the RWQCB (**Figure 2**). These samples were collected in 8-ounce jars with one sample collected at ground surface and the other collected at approximately 10-inches bgs. All samples were placed in a cooler with wet ice for transport to the analytical laboratory.

Groundwater grab samples were collected from borings B-02, MW-12, MW-13, MW-14 and MW-15. The grab groundwater samples were collected using a Hydropunch<sup>®</sup> sampling system pushed into undisturbed soil via direct push drilling rods. Once the

Hydropunch® sampling equipment was pushed to the desired depth, the rods were pulled up to expose the Hydropunch® screen across the target saturated zone, allowing formation water to enter the drill/sample rods. The formation water within the sampling system was "developed" by carefully removing approximately 1-2 gallons via a bailer prior to sampling for metals. Groundwater samples were first collected in a one-liter unpreserved container to serve as an aliquot. This aliquot was then shaken to homogenize the suspended sediment and half of the aliquot was poured into a preserved bottle for total metals analysis. The second half of the aliquot was field filtered and poured into a preserved bottle for dissolved metals analysis.

#### 5.4 Monitoring Well Installation, Development, and Sampling

Monitoring well installation, development, sampling, and decontamination procedures were performed in accordance with the SOP provided in Appendix C of the Phase 1 Following the direct push drilling, logging, and Workplan (Geosyntec, 2014). groundwater grab sampling, a total of six, 2-inch diameter Schedule 40 PVC groundwater monitoring wells were installed by Gregg Drilling and Testing, Inc. between August 22 and August 30, 2016. Monitoring well installation was conducted using an 8-inch diameter hollow-stem auger (HSA) drill rig in locations approximately ten feet away from the initial direct push borings. Following direct push lithologic logging, the monitoring well construction designs and screen lengths were designed to appropriately target the uppermost shallow groundwater zone while taking precautions to avoid installing the screen across significant silt or clay layers. The annulus between the screen interval and the borehole wall was filled with #2/12 sand that extended from the bottom of the borehole to approximately one foot above the top of the screen. The well was sealed using a minimum of 1-foot thick hydrated bentonite chips above the sand filter pack and a bentonite grout mix was placed via tremie pipe to the ground surface. The monitoring wells were completed with three-foot tall, above ground monuments set in 4-foot by 4foot concrete pads at the ground surface as required by the County of Inyo Environmental Health Department permit requirements. Monitoring well completion logs are included in Appendix B.

Between August 30 and September 01, 2016, the wells were developed a minimum of 48-hours following installation. The wells were developed using a surge block, bailer, and submersible pump. Well development was finished by pumping the wells using a 2-inch diameter electric submersible pump. Development continued until the turbidity reduced to approximately 50 NTUs and water quality parameters had stabilized. An exception to this was monitoring wells MW-14, which did not produce water after construction, and MW-11 which was pumped dry numerous times and was completed with a turbidity of 148 NTU. Well development logs are included in **Appendix C**.

Following well development, groundwater samples were collected from the monitoring wells using the low-flow purge and sampling technique. During monitoring well

groundwater sampling for dissolved and total metals analysis, water samples were first collected in a one-liter unpreserved container to serve as an aliquot. This aliquot was then shaken to homogenize the suspended sediment and half of the aliquot was poured into a preserved bottle for total metals analysis. The second half of the aliquot was field filtered and poured into a preserved bottle for dissolved metals analysis. Water quality parameters of temperature, electrical conductivity, pH, oxidation reduction potential (ORP), dissolved oxygen (DO), and turbidity were collected using a field water quality meter calibrated in accordance with the manufacturer's specifications. Additionally, total and residual chlorine were analyzed in the field using a colorimeter. Monitoring well field sampling logs are included in **Appendix D**.

A survey of the latitude, longitude, and top of well casing elevations of the groundwater monitoring wells was conducted following installation by Triad/Holmes Associates, Inc., a licensed professional surveyor (**Appendix E**).

#### 5.5 Soil Vapor Probe Sampling

The soil vapor probe (SVP) was purged and sampled on August 30, 2016, in general accordance with State of California Department of Toxic Substances Control (DTSC)/Los Angeles Regional Water Quality Control Board *Advisory on Active Soil Gas Investigations* (DTSC/Regional Board, 2015).

The general soil vapor sampling procedures were as follows:

- Static pressure or vacuum in the SVP was measured and recorded.
- Leak checks involving "shut-in" and helium tracer testing were performed to verify that all couplings and fittings in the sampling train are free of leaks.
- Soil vapor was purged prior to sample collection in order to ensure the sample was representative of soil vapor contained within the geologic materials outside the SVP and filter sand surrounding the SVP screen.
- During purging, soil vapor was collected in a Tedlar® bag and screened for VOCs using a photoionization detector (PID) calibrated to isobutylene.
- Helium was used as a leak check tracer compound during purging and monitoring.
   Helium was introduced into a shroud which encompassed the SVP surface connections during the purge prior to sample collection.
- After purging and stabilization of field monitoring parameters, soil vapor samples for laboratory analysis were collected in 1-L Summa canisters; one primary and one duplicate sample. The canisters used for sampling were batch certified by the analytical laboratory.

• Sample identification and sample times were recorded on standard chain-of-custody documentation and transferred to the analytical laboratory.

Soil vapor sampling logs are included in **Appendix D.** 

#### 5.6 <u>Laboratory Analytical Schedule</u>

All soil, groundwater, and soil vapor samples were analyzed by Eurofins-Calscience Environmental Laboratory. The soil samples were analyzed for the following parameters:

- Boring B-01 soil samples were analyzed for Title 22 metals using EPA Method 6010B and 7471A; and
- Surface soil samples (SS-01 and SS-02) were analyzed for Title 22 metals using EPA Method 6010B and 7471A, semi-volatile organic compounds (SVOCs) using EPA Method 8270C, and VOCs using EPA Method 8260B<sup>2</sup>.

Groundwater grab samples were analyzed for:

• CAM 17 metals, (total and dissolved) using EPA Method 6010B and 7470A;

Groundwater monitoring well samples were analyzed for:

- CAM 17 metals, (total and dissolved) using EPA Method 6010B and 7470A;
- VOCs using EPA Method 8260B;
- Semi-Volatile Organic Compounds (SVOCs) using EPA Method 8270C;
- Methylene Blue Active Substances (MBAS) using SM Method 5540C;
- General Minerals (sodium, calcium, magnesium, chloride, bicarbonate, and sulfate) using EPA Method 200.7, 300.0 and Standard Method (SM) 2320B;
- Total Dissolved Solids (TDS) using SM 2540C;
- Total phosphate and phosphorus using SM 4500;
- Total nitrogen, nitrate as nitrogen, ammonia, and Total Kjeldahl nitrogen using SM 4500; and

<sup>&</sup>lt;sup>2</sup> VOCs and SVOCs were added to the analytical suite six days after collection due to information from the RWOCB of their intent to run split samples for these analyses.

• Total and fecal coliform using SM 8221B (analyzed by BC Laboratories due to short hold time).

Soil vapor samples were analyzed for:

• VOCs using EPA Method TO-15.

#### 5.7 <u>Investigative Derived Waste</u>

Soil cuttings were transferred to a lined roll-off bin while well development and purge/decontamination water was transferred to a holding tank. All soil and water IDW was stored onsite pending laboratory analysis and profile acceptance. A composite sample of both the soil cuttings and the purge/decontamination water were collected and analyzed for VOCs using EPA Method 8260B and Title 22 Metals using EPA Methods 6020/7470A (aqueous) or 6010B/7471A (solid); soil was also analyzed for total petroleum hydrocarbons using EPA Method 8015M. Based on the results of the waste profile samples, a non-hazardous waste profile was accepted at a licensed waste disposal facility. The soil bin was transported to Soil Safe of California in Adelanto, California on September 9, 2016 and the water was transported to Crosby and Overton, in Long Beach California on September 20, 2016. The transportation waste manifests for the soil and water transported off the Site is included as **Appendix F**.

#### 6.0 INVESTIGATION RESULTS

The following sections present the results of the Phase 3 investigation. A summary of the soil sample analytical results are presented in **Table 1**. A summary of the groundwater well construction details and historical groundwater elevations are presented in **Table 2**. The field groundwater quality parameters collected during sampling are presented in **Table 3**. Groundwater analytical results are presented in **Tables 4** through **6** and soil vapor sample results are presented in **Table 7**. A site plan with Phase 3 investigation locations and all groundwater monitoring well locations are presented on **Figure 2**. The groundwater elevations and groundwater gradient from measurements collected during the third quarter of 2016 are shown on **Figure 3**. Dissolved arsenic isoconcentration contours are shown on **Figure 4**. **Figure 5** shows the lines of geologic cross sections presented in **Figure 5A through 5C**. Stiff plot comparisons of inorganic data collected during the third quarter 2016 are presented on **Figure 6**. The laboratory analytical reports for soil, soil vapor, and groundwater samples are presented in **Appendix G**.

#### 6.1 Soil Results

#### 6.1.1 Soil Classification and Field Data

The soil types encountered in borings B-01 and MW-10, located in the vicinity of the Fire Pond, generally consist of well graded sand interbedded with silt and silty sand from ground surface to total depth. The soils classified in these borings are interpreted to be alluvial fan sediments derived from erosion of the Sierra Nevada Mountains to the west of the Site. Both B-01 and MW-10 are installed in locations west of the Spring-line fault and significant lacustrine deposits were generally not encountered.

In borings B-02 and MW-15, completed in locations around the former Arsenic Pond, the soil types generally consist of well graded sand with trace gravel, from ground surface to depths ranging from approximately 11 to 14 ft bgs. Underlying the well graded sands are alternating layers of silts/clays and sands to total depth. In borings for monitoring wells MW-11 and MW-12, located downgradient from the former Arsenic Pond and within the historical lake bed footprint, fine-grained silt was encountered at ground surface with alternating layers of silts/clays and sands to total depth. The soil sequence observed in these borings is interpreted to be recent alluvial deposits at the former lake shore of the Owens Dry Lake shoreline underlain by interfingered fine-grained lacustrine sediments. These borings were all completed east of the Spring-line fault.

In boring MW-13 completed cross-gradient of the former Arsenic Pond and the East Pond, the soil types consisted of well graded sand and gravel interbedded with silty sand from ground surface to approximately 12 ft bgs. Underlying the well graded sands were alternating layers of silts/clays and sands to total depth. In boring MW-14 located upgradient of the East Pond, well graded sand was encountered from ground surface to 16

ft bgs underlain by silt to total depth. The soil encountered in these borings are similar to the soils encountered near the former Arsenic Pond and interpreted to be alluvial deposits at the former shoreline of Owens Dry Lake underlain by interfingered fine-grained lacustrine sediments. These borings were also completed east of the Spring-line fault.

No indications of contamination such as staining, discoloration, or odors were encountered during soil logging. PID readings collected in the field ranged from 0.0 to 0.6 parts per million volume (ppmv), with the highest PID reading recorded in MW-15 at approximately 25 ft bgs. The borehole logs are presented in **Appendix B**.

#### **6.1.2** Soil Sample Analytical Results

A total of 4 soil samples were collected at different depths in boring B-01 located adjacent to MW-01 and the Fire Pond and analyzed for Title 22 metals. Two surface soil samples, SS-01 and SS-02, were collected at ground surface to the northeast of the southern bottling facility and were analyzed for Title 22 metals and VOCs. **Table 1** presents a summary of the detected metals for soil boring samples from B-01 and surface soil samples. Only detections above the laboratory minimum reporting limits (MRLs) are presented in the table; all other results were not detected above laboratory MRLs. **Table 1** also includes two regulatory screening levels including 1) the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (USEPA, 2016) based on an industrial site setting and 2) the maximum contaminant level (MCL)-based protection of groundwater value.

In boring B-01, arsenic, barium, beryllium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc were detected above the laboratory MRL in one or more samples collected. The maximum concentration of arsenic [23.1 milligrams per kilogram (mg/kg)] was detected at 15 feet bgs. Additionally, the maximum concentration of all detected metals in boring B-01 were detected at 15 or 18 feet bgs.

In soil samples SS-01 and SS-02, VOCs and SVOCs were non-detect<sup>3</sup>. Antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc were detected above the laboratory MRL in one or both soil samples. Soil sample analytical reports are included in **Appendix G**.

#### **6.2** Groundwater Results

#### **6.2.1** Groundwater Grab Analytical Results

Groundwater grab samples were collected as described in Section 5.3 at five locations: B-02, MW-12, MW-13, MW-14, and MW-15. Concentrations of antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, and nickel were detected

<sup>&</sup>lt;sup>3</sup> Note data validation qualification for soil sample VOC analysis. See Section 6.4.

above their respective MCLs as indicated by shaded cells in **Table 4**. Dissolved arsenic and total arsenic concentrations are included in the cross-sections on **Figures 5A** through **5C**. Dissolved arsenic concentrations in groundwater grab samples from boring MW-15, located upgradient to the former Arsenic Pond, ranged from 62.9 to 201  $\mu$ g/L. Concentrations of dissolved arsenic in groundwater grab samples from boring B-02, located downgradient to the former Arsenic Pond, ranged from 13.3 to 363  $\mu$ g/L. Concentrations of dissolved arsenic in other groundwater grab samples collected from borings both down- and cross-gradient to the former Arsenic Pond ranged from 27.4 to 111  $\mu$ g/L.

In general, concentrations of other metals were detected within the range of concentrations detected in groundwater grab samples collected in either boring MW-14 or MW-15, located cross- and upgradient to the former Arsenic Pond, respectively (**Figure 2**).

#### **6.2.2** Monitoring Well Groundwater Analytical Results

Fifteen groundwater monitoring well samples and two duplicate samples were collected as part of this investigation to coincide with the third quarter 2016 monitoring event. The stabilized field groundwater quality monitoring parameters collected prior to groundwater sample collection are presented in **Table 3**. The analytical results for the groundwater samples are summarized in **Tables 4** through **6**.

The primary constituent of concern in groundwater at the Site continues to be arsenic which was detected above the MCL in 12 of the Site monitoring wells. In general, concentrations of dissolved arsenic and other metals detected in the third quarter 2016 monitoring event were similar to the previous monitoring event (**Table 4**).

Concentrations of general minerals were similar to results from previous monitoring events (**Table 5**). Stiff plots for each of the monitoring wells are presented on **Figure 6** for comparison. Based on the stiff plot comparison, concentrations of anions and cations generally increase towards the east of the Site in the direction of the Owens Dry Lake. The secondary MCLs for the following constituents were exceeded during the third quarter 2016:

- The TDS secondary MCL of 500 mg/L was exceeded in wells MW-04, MW-05, MW-06, MW-09, MW-11, and MW-12;
- The sulfate secondary MCL of 250 mg/L was exceeded in wells MW-04, MW-05, MW-09, and MW-11;
- The chloride secondary MCL of 250 mg/L was exceeded in well MW-06; and

Fecal and/or total coliform were detected above the laboratory MRL in monitoring wells MW-07, MW-09, MW-13, and MW-15. Note that MW-15 is a deep screened well located upgradient of the former Arsenic Pond suggesting the potential for cross-contamination (i.e. field or laboratory contamination).

VOCs and SVOCs were not detected during the third quarter 2016 sampling event. Further discussion of the groundwater sample analytical results is presented in Section 7.3.

#### **6.2.3** Groundwater Elevation Data

Groundwater level measurements were collected from the Site monitoring wells during the third quarter 2016 monitoring event. The well construction specifications and historical groundwater level monitoring data are presented in **Table 2**. Decreases in groundwater elevations since the previous monitoring event were observed across the Site with the greatest decrease noted in monitoring well MW-09 (1.55 feet). Groundwater elevations for the shallow zone monitoring wells ranged from 3,589.82 feet above sea level (ft asl) in well MW-12 to 3,620.32 ft asl measured in MW-01. Monitoring wells MW-15 and OW-8US are screened deeper than the shallow zone monitoring wells at 43-48 ft bgs and 55-75 ft bgs, respectively. The groundwater elevation measured in MW-15 is 15.84 feet higher than the groundwater elevation measured in the adjacent shallow zone well MW-03, indicating a significant upward groundwater gradient. Additionally, OW-8US has approximately 2 psi of artesian pressure at the well head.

Groundwater elevation contours for the third quarter 2016 are presented on **Figure 3**. The groundwater flow direction is towards the northeast in the area beneath the former Arsenic Pond and the East Pond. The groundwater gradient, calculated using the 3-point method, is approximately 0.009 feet/ft in the area of the former Arsenic Pond and East Pond, consistent with previous measurements. Based on previous hydrogeologic investigations of the Site (Dames and Moore, 1991), groundwater west of the Spring-line fault generally flows to the east, and the fault is interpreted as a leaky boundary, such that groundwater will mound when it encounters the fault. This rise in groundwater associated with the Spring-line fault causes the spring seeps at the Site. The groundwater gradient calculated in this and previous investigations indicates that the flow direction and magnitude is similar on both sides of the Spring-line fault.

#### 6.3 Soil Vapor Sample Results

Site SVP SV-01 was sampled during the third quarter 2016 monitoring event with one primary and one duplicate sample collected. Acetone, 2-butanone, trichloroethene (TCE) and vinyl acetate were detected at very low levels above laboratory reporting limits in either the primary or duplicate sample (**Table 7**). Since the concentrations were not reproducible in both the primary and duplicate samples at similar concentrations, the detections were qualified as estimated. These concentrations were well below the

screening levels for residential vapor intrusion concerns. All other VOCs were not detected above the laboratory MRLs.

#### 6.4 Data Validation

The data were validated at a United States Environmental Protection Agency (EPA) Stage 2A data validation level. Based on this Stage 2A data validation covering the quality control (QC) parameters listed in the data validation summaries, the data as qualified are usable for meeting project objectives, with the exceptions of rejected data. Further summary of the data validation results is presented in **Appendix H**. Qualified data should be used within the limitations of the qualification. The following rejection qualifications for soil samples were identified based on the Stage 2A data validation:

- The non-detect results of VOCs in samples SS-01-160823 and SS-02-160823 are R qualified as rejected, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours<sup>4</sup>.
- Due to matrix spike/matrix spike duplicate (MS/MSD) recoveries less than 20%, the non-detect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected.

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<sup>&</sup>lt;sup>4</sup> VOC analysis was requested by the RWOCB six days following sample collection.

#### 7.0 DATA EVALUATION AND CONCLUSIONS

#### 7.1 Soil Conditions

The soil types encountered in the vicinity of the Fire Pond, west of the Spring-line fault, are interpreted to be alluvial fan sediments derived from erosion of the Sierra Nevada Mountains to the west of the Site. The soil types encountered surrounding the former Arsenic Pond and the East Pond, east of the Spring-line fault, indicate that the surficial soils are coarse-grained sands representative of the former shoreline of the now dry Owens Lake. Soil types encountered below the coarse-grained sands were fine-grained lacustrine deposits interbedded with alluvial sands. This sequence of soil types is consistent with borings that have been completed east of the Spring-line fault.

Soil sample analytical results for metals were compared to two regulatory screening levels including 1) the EPA RSLs based on an industrial site setting and 2) the MCL-based protection of groundwater value. In addition, soil concentrations were compared to the California median background soil values (UCR/DTSC, 1996). Of the metals detected in the soil samples, antimony and arsenic were detected at concentrations exceeding one or more of these screening levels. Additionally, concentrations of arsenic and molybdenum detected in boring B-01 at depths of 15 and 18 ft bgs, respectively, exceeded the California median background for soil concentrations (UCR/DTSC, 1996 and Chernoff, et.al., DTSC, 2008). Boring B-01 is located upgradient of any waste water discharge outfall by more than 350 feet. Based on the B-01 soil sample depths and the location which is upgradient from discharge outfalls, it appears that the concentrations of arsenic and molybdenum are representative of naturally occurring regional levels that are higher than the median California background levels.

Samples SS-01 and SS-02 were collected as a split sample with the RWQCB. The objective of collection of these samples, according to the RWQCB, was to evaluate if uncontrolled releases of spent arsenic filter media had occurred in the past at the sample location. The RWQCB selected the sample location, based on the color and texture of the surface soils, and the color and texture of the soil underlying the surficial soil. The results of both the surficial soil sample and the sample collected in the soil horizon directly below did not contain concentrations of arsenic indicative of a release of spent arsenic filtration media.

#### 7.2 Soil Vapor

Concentrations of VOCs were detected at low concentrations in the sample collected. While vapor intrusion is very unlikely at this Site, all sample results were much lower than the most conservative screening levels for residential vapor intrusion concerns. In addition, VOCs in groundwater from surrounding locations did not have detections of VOCs. Based on the results of current and historical soil vapor sample results and the

current and historical groundwater sample results, there has not been a significant release of VOCs in the area around the valve distribution box.

#### 7.3 Groundwater

Based on groundwater samples collected during the Phase 3 Site Investigation, groundwater quality has been characterized in both the lateral and vertical directions for the constituents of concern. In particular, arsenic has been delineated with lateral control from wells MW-08 and MW-11 located to the north of the former Arsenic Pond, and wells MW-06 and MW-09 located to the south of the former Arsenic Pond and East Pond. Monitoring wells MW-07 and MW-12, located to the east of the former Arsenic Pond and East Pond, provide downgradient control points for arsenic concentrations. In addition, monitoring well MW-10 provides downgradient control in the area of the Fire Pond (**Figure 3**). While groundwater samples could not be collected in well MW-14 as it was dry at the time of sampling, this well will also provide additional future control to the south of the former Arsenic Pond as water levels are expected to increase in this well due to seasonal groundwater fluctuation.

Groundwater was characterized vertically in relation to the former Arsenic Pond based on the numerous groundwater grab samples collected in upgradient boring MW-15, downgradient boring B-02, and down- and cross-gradient borings MW-12, MW-13, and MW-14. In groundwater grab samples collected from boring MW-15, located approximately 70 feet upgradient of the former Arsenic Pond, dissolved arsenic concentrations ranged from 62.9 to 201  $\mu$ g/L. The highest concentration of dissolved arsenic in boring MW-15 was detected in the sample collected from 14 ft bgs in a sandy unit identified just below a fine-grained silt layer. Note that in monitoring well MW-03, located approximately 30 feet upgradient of MW-15, dissolved arsenic was detected an order of magnitude lower at 11.9  $\mu$ g/L with the pump inlet depth at a comparable depth to the high detection in MW-15.

In downgradient boring B-02, groundwater grab samples from 12.25, 15.5, and 23 ft bgs were collected in every water-bearing coarse-grained (sand) unit. Note that low permeability, fine-grained silt and clay units were present between the coarse-grained units where groundwater grab samples were collected (**Figure 5A**). The concentrations of dissolved arsenic decreased between the 12.25 ft bgs and the 15.5 ft bgs sample from 363 to 45.5 ug/L and decreased again between the 15.5 ft bgs and 23 ft bgs sample from 45.5 to 13.3 ug/L. An elevated dissolved arsenic concentration of 119  $\mu$ g/L was observed in the deepest sample collected from downgradient boring B-02 at a depth of 25.5 ft bgs within the same sand unit as the 23 ft bgs sample, and directly above a fine-grained unit. The distribution of dissolved arsenic concentrations in the deeper samples (i.e. higher in the deepest sample than shallower samples) is not consistent with a leak from the former Arsenic Pond and may indicate elevated background levels at depth.

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These findings suggest that groundwater arsenic concentrations near the former Arsenic Pond (and the overall area east of the Spring-line fault) can be relatively heterogeneous, varying between tens and hundreds of  $\mu g/L$  within short distances (i.e., within feet) both laterally and vertically. Elevated arsenic concentrations are often associated with the fine grained deposits due to adsorption of arsenic onto iron-bearing clay minerals and organic matter, both of which are also commonly concentrated in clay and silt deposits. Thus, as the presence of the lacustrine layers increases, it is expected that naturally occurring arsenic concentrations will likewise increase substantially, but this general trend will not be laterally continuous due to the heterogeneous distribution of the fine-grained deposits. Arsenic concentrations would also be expected to increase near and within these fine-grained deposits on a localized basis, thus, possibly explaining the observed dramatic variations observed in groundwater grab samples collected at the Site (Geosyntec, 2016b).

In groundwater monitoring well samples collected as part of the third quarter 2016 monitoring event, concentrations of dissolved arsenic and other metals were generally similar to previous monitoring events. The dissolved arsenic concentrations detected in groundwater monitoring well samples, may be the result of monitoring well screens spanning across multiple fine-grained units. Additionally, naturally occurring arsenic concentrations in groundwater increase east of the Spring-line fault reaching very high concentrations beneath the Owens Dry Lake. Further, increases in concentrations of anions and cations in Site monitoring wells generally increase towards the east of the Site in the direction of the Owens Dry Lake.

In conclusion, impacts from any potential prior releases of arsenic from the former Arsenic Pond are minimized due to the naturally high background arsenic concentrations in the area, including extremely elevated arsenic concentrations known to occur hydraulically downgradient of the former Arsenic Pond area. Any potential impacts of dissolved arsenic releases from the former Arsenic Pond are within the Site natural background levels and considerably below concentrations found within goundwater beneath the southern portion of the Owens Dry Lake. In addition, current analyses clearly show that groundwater originating at and near the former Arsenic Pond will not impact any water supply wells in the area and, based on current information, no known material harm to the environment or reasonably foreseeable beneficial uses for waters of the State have occurred (Geosyntec, 2016b).

#### 8.0 RECOMMENDATIONS

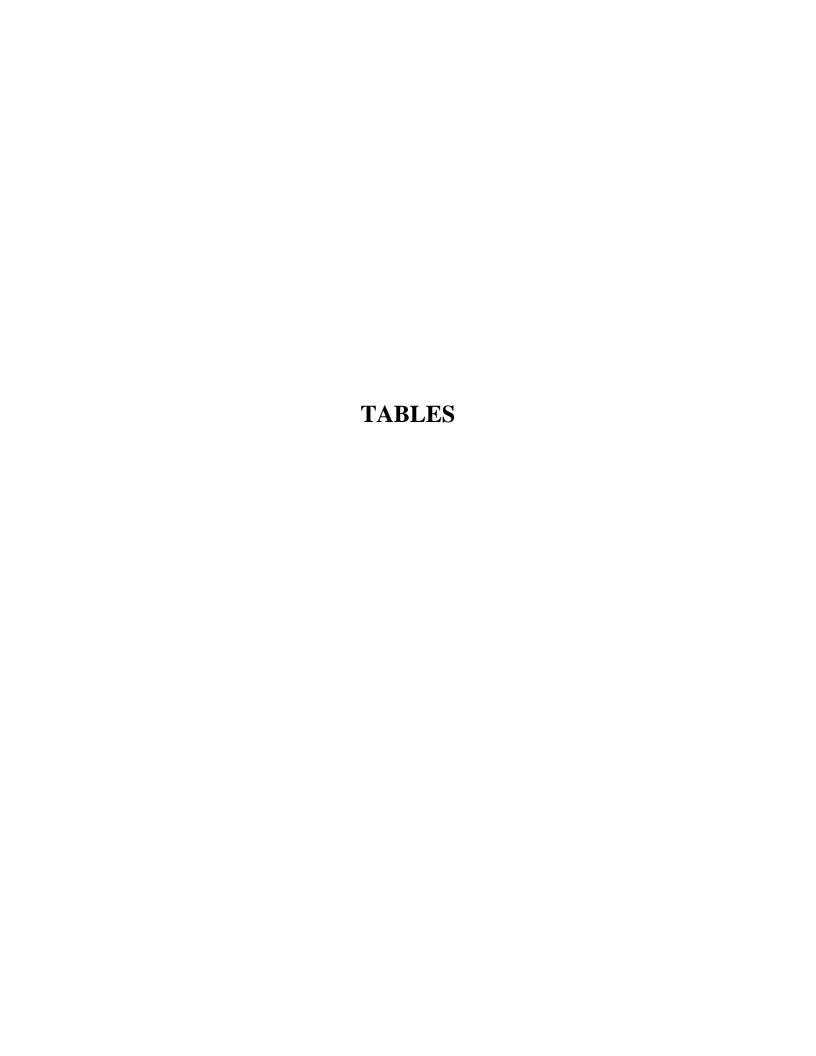
The Phase 3 Site investigation was conducted to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the former Arsenic Pond, the East Pond and the Fire Pond. Additionally, the investigation was completed to evaluate groundwater gradient and flow patterns in the upper-most shallow groundwater aquifer. Based on results obtained from the Phase 3 investigation and the third quarter 2016 monitoring event, Geosyntec provides the following recommendations:

- Based on very low to non-detected and inconsistent results over the last year of quarterly monitoring, and in consideration that all sewage waste water is fully contained in a tank system and not discharged to the groundwater, Geosyntec again recommends that the analytical requirements for total and fecal coliform be removed.
- 2. Considering that VOCs have not been detected in quarterly groundwater monitoring samples (with the exception of acetone detected during the second quarter 2016), Geosyntec again recommends that VOCs be removed from the groundwater analytical schedule.
- 3. SVOCs have not been detected in groundwater since monitoring was initiated and therefore Geosyntec again recommends removing SVOCs from the analytical schedule.
- 4. Based on very low to non-detected and inconsistent detections of VOCs in soil vapor samples collected for the past five quarters (below conservative screening levels for residential vapor intrusion concerns) and in consideration that VOCs have not been detected in groundwater samples, Geosyntec again recommends that soil vapor sampling is removed from the sampling schedule and the soil vapor probe be destroyed.
- 5. Based on consistent results obtained from five consecutive groundwater monitoring events, Geosyntec recommends that a reduction in groundwater sampling frequency to a semi-annual schedule is requested for the Site (spring and fall).

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## **Table 1**Soil Sample Results - Detected Metals Crystal Geyser Roxane

Olancha, CA

Location	Depth (ft bgs)	Date Sampled	Sample ID	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Molybdenum mg/kg	Nickel mg/kg	Vanadium mg/kg	Zinc mg/kg
B-01	5	2016-08-23	B-01-S-05-160823	< 0.773	1.34	24	< 0.258	0.612	2.32	4.11	2.01	< 0.258	0.773	9.19	33.2
B-01	10	2016-08-23	B-01-S-10-160823	< 0.754	1.61	23.7	< 0.251	1.28	2.13	3.72	1.87	< 0.251	0.809	8.68	29.6
B-01	15	2016-08-23	B-01-S-15-160823	< 0.754	23.1	65.6	0.353	1.93	5.47	11.4	7.55	< 0.251	2.05	23.5	59.6
B-01	18	2016-08-23	B-01-S-18-160823	< 0.735	3.62	52.9	< 0.245	8.55	2.79	6.36	2.53	1.04	1.83	11	38.4
SS-01	surface	2016-08-23	SS-01-160823	1.84	29	53	< 0.260	7.1	2.48	9.18	4.59	1.74	4.15	29.3	26.9
SS-02	0.83	2016-08-23	SS-02-160823	< 0.777	22.7	69.9	0.27	1.31	2.57	8.52	< 0.518	2.45	1.38	14.6	42.1
California: median background soil				0.47	12	520	1.2	69	12	22	21	0.85	27	94	150
Screening Level - USEPA 2016 Industrial Soil RSL					3	220,000	2,300	nl	350	47,000	800	5,800	22,000	5,800	350,000
Screening Level - USEPA 2016 Protection of Groundwater MCL-Based SSL					0.29	82	3.2	180,000	nl	46	14	nl	nl	nl	nl

#### Notes:

Soil samples were analyzed for CAM 17 Metals by Eurofins Calscience Environmental Laboratories, in Garden Grove, California.

Samples were analyzed using EPA Methods 6010B and 7471A. Only detected metals shown in this table. Other metals were not detected above the laboratory Minimum Reporting Limit.

Shaded cells represent an exceedance of one or more of the listed screening levels.

California median background soil derived from "Background Concentrations of Trace and Major Elements in California Soils", Kearny Foundation of Soil Science, March 1996

Arsenic median background soil value is the upper-bound background arsenic concentration from Chernoff, G., Bosan, W., Oudiz, D., 2008 "Determination of a Southern California Regional Background Arsenic Concentration in Soil", DTSC

ND <x.xx: Indicates sample result was less than laboratory minimum reporting limit.

ft bgs: Feet below ground surface

mg/kg: milligrams per kilogram

RSL: United States Environmental Protection Agency Regional Screening Level.

nl: not listed

J: Estimated concentration.

SSL: Soil screening level

ND<: Not detected above the listed laboratory minimum reporting limit.

## Concentration is above screening level

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#### Table 2

#### Historical Groundwater Levels and Well Construction Data Crystal Geyser Roxane Olancha, CA

MW-02 MW-03	36.3011461 36.3018132 36.3057165 36.3061799	-118.0199017  -118.0186995	Casing Elevation (ft amsl) 3643.80  3638.21	TOS Depth (ft bgs) 18	BOS Depth (ft bgs) 33	7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016 9/1/2016	Water (ft btoc) 21.80 22.71 22.50 22.02 22.59 23.48 12.28 18.43 17.86 17.31 18.96	Elevation (ft amsl)  3622.00  3621.09  3621.30  3621.78  3621.21  3620.32  3625.93  3619.78  3620.35  3620.90  3619.25
MW-02 MW-03	36.3018132 36.3057165	-118.0199017 -118.0186995	3643.80 3638.21	10	25	9/14/2015 12/9/2015 2/16/2016 6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	22.71 22.50 22.02 22.59 23.48 12.28 18.43 17.86 17.31	3621.09 3621.30 3621.78 3621.21 3620.32 3625.93 3619.78 3620.35 3620.90
MW-02 MW-03	36.3018132 36.3057165	-118.0199017 -118.0186995	3638.21	10	25	9/14/2015 12/9/2015 2/16/2016 6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	22.71 22.50 22.02 22.59 23.48 12.28 18.43 17.86 17.31	3621.09 3621.30 3621.78 3621.21 3620.32 3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995				12/9/2015 2/16/2016 6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	22.50 22.02 22.59 23.48 12.28 18.43 17.86 17.31	3621.30 3621.78 3621.21 3620.32 3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995				2/16/2016 6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	22.02 22.59 23.48 12.28 18.43 17.86 17.31	3621.78 3621.21 3620.32 3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995				6/28/2016 9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	22.59 23.48 12.28 18.43 17.86 17.31	3621.21 3620.32 3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995				9/1/2016 7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	23.48 12.28 18.43 17.86 17.31	3620.32 3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995				7/6/2015 9/14/2015 12/9/2015 2/16/2016 6/28/2016	12.28 18.43 17.86 17.31	3625.93 3619.78 3620.35 3620.90
MW-03	36.3057165	-118.0186995			20	9/14/2015 12/9/2015 2/16/2016 6/28/2016	18.43 17.86 17.31	3619.78 3620.35 3620.90
MW-04			3618.26	5	20	12/9/2015 2/16/2016 6/28/2016	17.86 17.31	3620.90
MW-04			3618.26	5	20	2/16/2016 6/28/2016		
MW-04			3618.26	5	20		18.96	3610 25
MW-04			3618.26	5	30	9/1/2016		コロエフ・ムフ
MW-04			3618.26	5	30	2/1/2010	19.33	3618.88
	36.3061799	-118.0177333			20	7/6/2015	13.97	3604.29
	36.3061799	-118.0177333				9/15/2015	15.02	3603.24
	36.3061799	-118.0177333				12/8/2015	13.05	3605.21
	36.3061799	-118.0177333				2/16/2016	11.77	3606.49
	36.3061799	-118.0177333				6/29/2016	14.23	3604.03
	36.3061799	-118.0177333				9/1/2016	15.48	3602.78
			3615.22	5	20	7/6/2015	11.17	3604.05
MW-05		110.0177333	3013:22	3		9/15/2015	11.94	3603.28
MW-05						12/8/2015	11.18	3604.04
MW-05						2/17/2016	9.90	3605.32
MW-05						6/28/2016	11.31	3603.91
MW-05						9/8/2016	12.24	3602.98
	36.3066296	-118.0165260	3608.33	5	20	7/6/2015	7.97	3600.36
	00.0000	110.0103200	3000.33	3		9/15/2015	8.47	3599.86
						12/8/2015	7.30	3601.03
						2/17/2016	6.28	3602.05
						6/29/2016	8.18	3600.15
						9/8/2016	9.21	3599.12
MW-06	36.3052343	-118.0149476	3615.33	8	23	7/6/2015	13.22	3602.11
	30,30323 13			o		9/15/2015	13.04	3602.29
						12/8/2015	12.91	3602.42
						2/16/2016	12.36	3602.97
						6/29/2016	13.44	3601.89
						9/7/2016	13.80	3601.53
MW-07	36.3055453	-118.0142003	3610.16	5	20	7/6/2015	8.28	3601.88
						9/15/2015	7.98	3602.18
						12/8/2015	7.62	3602.54
						2/16/2016	7.49	3602.67
						6/29/2016	8.59	3601.57
						9/7/2016	8.88	3601.28
MW-08	36.3063264	-118.0185088	3617.28	5	20	7/6/2015	13.31	3603.97
	30.3003204	110.0105000	3017.26	3		9/14/2015	13.95	3603.33
						12/8/2015	13.05	3604.23
						2/17/2016	11.65	3605.63
						6/28/2016	13.43	3603.85
						9/7/2016	14.32	3602.96
MW-09	36.3056073	-118.0178481	3620.04	9	24	7/6/2015	16.14	3603.90
19199-03	30.3030073	-118.0178481	3620.04	g	24	9/15/2015	17.34	3602.70
						12/9/2015	16.05	3603.99
						2/17/2016	14.41	3605.63
						6/29/2016	16.21	3603.83
						9/7/2016	17.76	3602.28
MW-10	36.3013840	-118.0197377	3640.44	11	26	<del>}                                    </del>	21.05	
	36.3013840	-118.0197377	3640.44	11 5	11	8/30/2016 9/8/2016	10.02	3619.39 3593.94
	36.3076097	-118.0138466		5	7.5	+ + +	9.25	
	36.3074198	-118.0138466	3599.07 3610.61	5		9/6/2016	9.25	3589.82 3601.16
					11.5	9/7/2016		3601.16
	36.3045843	-118.0159273	3620.50	7.5	15.5	9/6/2016	Dry	Dry
	36.3057670 36.3075790	-118.0186235 -118.0136696	3618.62 3600.26	43 55	48 75	9/1/2016 9/6/2016	5.14 artesian	3613.48 artesian

#### Notes:

Wellhead elevation and location survey completed by Triad/Holmes Associates, Inc.

Coordinate data in NAD 83 State Plane IV.

Elevation data in NAV 88.

ft btoc feet below top of casing
ft amsl feet above mean sea level
ft bgs feet below ground surface

TOS Top of screen
BOS Bottom of screen

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**Table 3**Field Groundwater Quality Parameters 3Q16
Crystal Geyser Roxane
Olancha, CA

Boring ID	Temperature (°C)	Conductivity (μS/cm)	ORP (mV)	DO (mg/L)	рН	Turbidity (NTU)	Free Cl <sub>2</sub>	Total Cl <sub>2</sub>
MW-01	19.1	184.1	159.4	4.7	6.54	38	0.53	0.34
MW-02	18.9	230.8	-35.0	0.2	6.16	12	0.10	0.13
MW-03	19.0	273.6	-225.1	0.4	7.48	16	0.29	0.22
MW-04	20.8	1,693	71.3	5.0	9.78	30	0.00	0.00
MW-05	19.6	1,274	60.6	2.0	8.73	7	0.01	0.00
MW-06	21.5	1,335	-130.0	0.3	9.12	7	0.00	0.03
MW-07	20.9	593.0	-348.1	0.4	7.87	112	0.00	0.00
MW-08	18.8	333.0	-288.9	0.3	7.00	18	0.01	0.03
MW-09	17.8	1,093	-105.6	0.6	7.12	9	0.00	0.00
MW-10	16.5	131.0	2.9	0.3	7.10	4.0	NA	NA
MW-11	17.5	1,698	-86.2	0.6	6.91	14	0.01	0.02
MW-12	21.3	1,723	-248.7	0.4	8.99	20	0.00	0.00
MW-13	22.2	990	-204.6	0.9	8.59	7	0.01	0.00
MW-14	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	18.8	310	-242.5	0.2	7.95	206	0.00	0.05
OW-8US	15.5	192.2	-224.8	0.1	8.28	0	0.04	0.10

#### Notes:

Field groundwater quality parameters measured with a YSI Pro Plus with Flow-thru Cell

ORP: Oxidation reduction potential

DO: Dissolved oxygen

Cl<sub>2</sub>: chlorine

μS/cm: microsiemens per centimeter

°C: degrees centigrade ppm: parts per million

mV: millivolts

mg/L: milligrams per liter

NTU: Nephelometric Turbidity Unit

NA: Not available

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### **Table 4**Groundwater Sample Results - Detected Metals Crystal Geyser Roxane Olancha, CA

		Screen	Sample			Antimony	Antimony	Arsenic	Arsenic	Barium	Barium	Berylliu	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Copper	Copper	Lead	Lead		Molybdenum	Molybdenum	Nickel	Nickel	Selenium	Selenium	Silver	Silver	Vanadium	Vanadium	Zinc	Zinc
Locat	tion	Interval (ft	t Depth (ft	Date Sampled	Sample ID	(dissolved)	(total)	(dissolved)	1 , ., 1	(dissolved)	(total)	m	, .,	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	(total)	Mercury	(dissolved)	(total)	(Dissolved)	(total)	(dissolved)	(total)	(dissolved)	(total)	(dissolved)	(total)		
		bgs)	bgs)	07/07/15	MW-01-070715	μ <b>g/l</b> < 15.0	μ <b>g/l</b> < 15.0	μ <b>g/l</b> 13.6	μg/I 17.6	μ <b>g/l</b> 22.8	μ <b>g/l</b> 26.8	μg/l < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b>	μg/l < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 0.50 J	μ <b>g/l</b> 11.0	μ <b>g/l</b> 11.9	<b>ug/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 15.0	μ <b>g/l</b> < 15.0	μ <b>g/l</b> < 5.00	μ <b>g/l</b> < 5.00	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0	μ <b>g/l</b> < 10.0
			26	09/14/15	MW-01-070715 MW-01-091415	< 15.0	< 15.0	< 10.0	14.7	25.8	26.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	10.9
	MW-01	18 - 33	27	12/09/15	MW-01-120915	< 1.00	< 1.00	12.6	15.9	25.8	38.2	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.67	2.38	< 1.00	< 1.00	< 0.50	7.21	8.13	2.43 J	1.19 J	< 1.00	< 1.00	< 1.00	< 1.00	4.54	9.85	18.3	54.3
			27	02/16/16 06/28/16	MW-01-021616 MW-01-062816	< 1.00 < 1.00	< 1.00 < 1.00	12.1 13.4	13.8	25.9 23.1	56.7 51.2	< 1.00 < 1.00	< 1.00 < 1.00	1.14 < 1.00	1.58 1.63	< 1.00 < 1.00	1.10	< 1.10 < 1.00	< 5.17 5.61	< 1.00 < 1.00	1.11	< 0.50 < 0.50	7.11 6.34	7.70 6.64	< 1.00 < 1.00	1.80 1.76	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	6.82 4.73	15.3 10.3	< 5.00 6.21	6.91 13.3
			27	09/01/16	MW-01-090116	< 1.00	< 1.00	9.56	11.3	21.7	37.7	< 1.00	< 1.00	< 1.00	1.32	< 1.00	< 1.00	1.20	3.61	< 1.00	< 1.00	< 0.50	4.40	4.99	< 1.00	1.59	< 1.00	< 1.00	< 1.00	< 1.00	2.73	6.56	7.83	17.8
			20	07/07/15 09/14/15	MW-02-070715 MW-02-091415	< 15.0 < 15.0	< 15.0 < 15.0	23.3 < 10.0	< 10.0	19.6 19.6	20.2 19.1	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 0.50 < 0.50	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 15.0 < 15.0	< 15.0 < 15.0	< 5.00 < 5.00	< 5.00 < 5.00	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 15.9
	MW-02	10 - 25	19	12/09/15	MW-02-120915	< 1.00	< 1.00	12.6	11.8	34.3	35.4	< 1.00	< 1.00	< 1.00	< 1.00	1.22	1.36	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	1.86	2.04	1.07	1.30	< 1.00	< 1.00	< 1.00	< 1.00	10.0	9.28	< 5.00	9.01
	10100 02	10 25	19	02/16/16	MW-02-021616	< 1.00 4.77	1.42	7.27 5.92	16.7	34.0	42.2	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.80 16.5	< 1.00	< 1.88	< 1.00	< 1.00 9.90	< 0.50 < 0.50	2.15	2.55	1.76	1.90	< 1.00	< 1.00	< 1.00	< 1.00	6.28 27.7	22.1 174	6.25	24.7
			21	06/28/16 09/01/16	MW-02-062816 MW-02-090116	< 1.00	8.91 < 1.00	5.55	7.22	30.4 37.8	144 38.9	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	11.6 < 1.00	4.04 < 1.00	< 1.00	< 1.00 1.19	30.1 1.22	< 1.00 < 1.00	< 1.00	< 0.50	6.43 1.64	12.5 1.66	2.45 1.59	12.6 1.61	< 1.00 < 1.00	2.56 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	1.67	4.43	< 5.00 8.46	75.8 10.7
			15	07/07/15	MW-03-070715	< 15.0	< 15.0	20.5	20.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 0.50 J	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			15	09/15/15 12/08/15	MW-03-091515 MW-03-120815	< 15.0 < 1.00	< 15.0 < 1.00	< 10.0 7.11	8.55	< 10.0 8.94	< 10.0 10.0	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 1.09	< 10.0 1.24	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 0.50 < 0.50	< 10.0 4.19	< 10.0 4.48	< 10.0 1.03	< 10.0 1.58	< 15.0 < 1.00	< 15.0 < 1.00	< 5.00 < 1.00	< 5.00 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 7.62	< 10.0 8.55
	MW-03	5 - 20	15	02/16/16	MW-03-021616	< 1.00	1.42	4.81	5.14	6.88	11.8	< 1.00	< 1.00	< 1.00	1.22	< 1.00	< 1.00	< 1.00	< 1.97	< 1.00	< 1.00	< 0.50	2.49	3.07	< 1.00	1.38	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.63	11.1	10.7
			15	06/29/16 09/01/16	MW-03-062916 MW-03-090116	< 1.00 < 1.00	< 1.00 < 1.00	4.17 11.9	4.02 13.8	6.09 7.97	11.1 10.5	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	1.30 17.3	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	1.47 J+ 1.06	< 1.00 < 1.00	< 1.00 < 1.00	< 0.50 < 0.50	1.79 12.0	1.93 13.3	< 1.00 1.18	1.29 7.46	< 1.00 < 1.00	2.85 < 1.00	< 5.00 14.5	6.08 12.2				
-			17	07/06/15	MW-04-070615	24.7 J	16.0 J	742	821	10.3 J	24.4	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	48.2	43.3	< 10.0	< 10.0	< 0.50 J	430	476	< 10.0	< 10.0	< 15.0	< 15.0	6.80 J	< 5.00 J	217	249	< 10.0	24.9 J
				07/06/15	MW-04-070615-DUP	20.3 J	< 15.0 J	757	816	< 10.0 J	23.8	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	36.1	41.8	< 10.0	< 10.0	< 0.50 J	439	471	< 10.0	< 10.0	< 15.0	< 15.0	7.91 J	< 5.00 J	222	248	< 10.0	13.4 J
			-	09/15/15 09/15/15	MW-04-091515 MW-04-091515-DUP	19.3 20.5	16.1 15.8	685	691 670	< 10.0 < 10.0	10.5 10.6	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	15.8 14.2	16.4 15.3	< 10.0 < 10.0	< 10.0 < 10.0	< 0.50 < 0.50	389 389	364 366	< 10.0 < 10.0	< 10.0 < 10.0	< 15.0 < 15.0	< 15.0 < 15.0	< 5.00 < 5.00	< 5.00 < 5.00	189 191	193 189	< 10.0 < 10.0	37.3 J < 10.0 J
				12/08/15	MW-04-120815	13.3	8.50	636	586	45.5 J	30.4 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	54.4 J	19.6 J	22.8 J	14.9 J	< 0.50	446 J	303 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	194	143	34.6 J	< 25.0 J
	MW-04	5 - 20	13	12/08/15 02/17/16	MW-04-120815-DUP MW-04-021716	12.2 4.18	8.29 4.53	609 153	582 154	41.4 18.4	31.7 24.0	< 5.00 < 1.00	< 5.00 < 1.00	< 5.00 4.08 J	< 5.00 1.15 J	< 5.00 < 1.00	< 5.00 < 1.00	50.2 J < 3.39	19.5 J 10.2	21.3 J < 1.00	14.6 J 2.31	< 0.50 < 0.50	420 106	310 104	< 5.00 4.77 J	< 5.00 1.36 J	< 5.00 < 1.00	< 5.00 < 1.00	< 5.00 < 1.00	< 5.00 < 1.00	180 39.2	146 49.6		< 25.0 J 17.8 J
			-	02/17/16	MW-04-021716 MW-04-021716-DUP	4.18	4.43	159	154	18.9	24.5	< 1.00	< 1.00	< 1.00 J	1.131	< 1.00	< 1.00	< 2.98	10.2	< 1.00	2.31	< 0.50	100	105	4.77 J	1.35	< 1.00	< 1.00	< 1.00	< 1.00	47.2			< 5.00 J
				06/28/16	MW-04-062816	4.86 J	4.99 J	130	140	19.4	45.6 J	< 1.00	< 1.00	< 1.00	2.16 J	< 1.00	1.18 J	10.5 J	15.1 J	< 1.00	2.33 J	< 0.50	119	125	< 1.00	2.27	< 1.00	< 1.00	< 1.00	< 1.00	35.1	40.9	18.6	32.1 J
				06/28/16 09/08/16	MW-04-062816-DUP MW-04-090816	3.30 J 2.97	3.37 J 2.79	132 134	135 125	16.4 3.35	21.4 J 8.08	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 J 1.37	< 1.00 < 1.00	< 1.00 J < 1.00	6.50 J 5.04	7.81 J 6.01	< 1.00 < 1.00	1.07 J 1.68	< 0.50 < 0.50	125 143	124 136	< 1.00 1.20	< 1.00 1.36	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	30.5 29.6	32.0 30.2	20.6 J 8.26 J	11.4 J 32.0
				09/08/16	MW-04-090816-DUP	3.02	2.95	134	127	3.25	8.63	< 1.00	< 1.00	< 1.00	1.44	< 1.00	< 1.00	4.77	6.05	< 1.00	1.70	< 0.50	147	142	1.11	1.48	< 1.00	< 1.00	< 1.00	< 1.00	30.5	30.7	< 5.00 J	28.4
σ			_	07/07/15 09/15/15	MW-05-070715 MW-05-091515	< 15.0 < 15.0	< 15.0 < 15.0	707 224	730	14.3 < 10.0	17.2 < 10.0	< 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	50.5 < 10.0	47.3 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 0.50 J < 0.50	437 204	448 190	< 10.0 < 10.0	< 10.0 < 10.0	< 15.0 < 15.0	< 15.0 < 15.0	5.59 J < 5.00	< 5.00 J < 5.00	197 28.1	208	10.3	37.5 89.3
Well	MW-05	5 - 20	13	12/08/15	MW-05-120815	1.21	1.27	130	141	8.45	9.01	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.26	1.42	< 1.00	< 1.00	< 0.50	108	121	1.37	1.63	< 1.00	< 1.00	< 1.00	< 1.00	15.3	14.8	< 5.00	7.32
ring	10100 05	3 20		02/17/16	MW-05-021716 MW-05-062916	1.67	1.62	99.8	99.8	8.89	10.5	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.80 J	1.67 J	< 1.00	< 1.00	< 0.50	98.7	101	3.00 J	1.75 J	< 1.00	< 1.00	< 1.00	< 1.00	11.6	10.9	13.7 J	8.12 J
nito				06/29/16 09/08/16	MW-05-090816	4.68 3.34	4.63 3.34	274 191	281 181	9.74 5.13	15.8 6.61	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	1.28	< 1.00 < 1.00	< 1.00 < 1.00	4.99	12.9 J+ 6.43	< 1.00 < 1.00	< 1.00 < 1.00	< 0.50 < 0.50	191 124	186 121	1.67 1.29	2.19 1.52	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	169 68.0	172 64.0	10.8 < 5.00	12.3 19.4
Š				07/06/15	MW-06-070615	< 15.0	< 15.0	17.1	18.3	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 0.50 J	10.4	10.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			<u> </u>	09/15/15 12/08/15	MW-06-091515 MW-06-120815	< 15.0 < 1.00	< 15.0 < 1.00	10.7 11.6	18.0	< 10.0 4.75	< 10.0 4.63	< 10.0	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 < 1.00	< 10.0 1.86 J	< 10.0 1.33 J	< 10.0 < 1.00	< 10.0 < 1.00	< 0.50 < 0.50	< 10.0 5.58	< 10.0 5.13	< 10.0 1.42	< 10.0 1.08	16.3 < 1.00	15.4 < 1.00	< 5.00 < 1.00	< 5.00 < 1.00	< 10.0 < 1.00	< 10.0 1.51	13.4 6.51 J	31.6 < 5.00 J
	MW-06	8 - 23	17	02/16/16	MW-06-021616	1.69	2.75	11.3	12.4	2.17	4.98	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 4.52	< 4.61	< 1.00	< 1.00	< 0.50	4.79	4.85	1.82 J	1.18 J	< 1.00	< 1.00	< 1.00	< 1.00	4.64	5.43	6.37	5.73
			-	06/29/16 09/07/16	MW-06-062916 MW-06-090716	< 1.00 < 1.00	< 1.00 < 1.00	11.9 18.6	11.6 17.9	13.8 2.69	10.3 3.12	< 1.00 < 1.00	< 1.00 < 1.00	1.24 J < 1.00	< 1.00 J < 1.00	< 1.00 < 1.00	< 1.00	1.70 J < 1.00	< 1.00 J < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 0.50 < 0.50	6.79 9.77	6.87 9.14	2.54 < 1.00	2.40 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	1.13 3.30	< 1.00 3.30	6.68 < 5.00	13.5 < 5.00
-			13	07/06/15	MW-07-070615	< 15.0	< 15.0	47.9	48.3	< 10.0	14.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 1.00	37.2 J	16.2 J	< 10.0	< 10.0	< 0.50 J	29.3	30.1	< 10.0	10.5 J+	< 15.0	< 15.0	< 5.00	< 5.00	19.7	21.8 J+	< 10.0	22.6 J+
			13	09/15/15	MW-07-091515	< 15.0	< 15.0	< 10.0	14.9	< 10.0	22.7	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 0.50	< 10.0	13.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	25.3
	MW-07	5 - 20	13	12/08/15 02/16/16	MW-07-120815 MW-07-021616	1.33 1.90	1.10 2.76	14.1 17.6	16.2 17.6	9.69 3.51	20.5 J 52.3	< 1.00 < 1.00	< 1.00 < 1.00	1.65 J < 1.00	< 1.00 J 4.12	1.16 J < 1.00	< 1.00 J 2.69	4.67 < 3.10	4.37 10.2 J+	< 1.00 < 1.00	1.40 2.39	< 0.50 < 0.50	9.01	9.93 7.96	4.30 J 3.51	3.11 J 5.91	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	3.94 J 2.27	2.69 J 15.8	30.3 J < 5.00	19.7 J 23.8
			15	06/29/16	MW-07-062916	< 1.00	1.13	11.9	14.9	2.88	90.7	< 1.00	< 1.00	< 1.00	7.56	< 1.00	3.50	1.66	13.7 J+	3.55	6.51	< 0.50	8.78	8.08	1.89	7.23	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	13.4	20.6	24.3
-			15 15	09/07/16 07/07/15	MW-07-090716 MW-08-070715	1.43 < 15.0	1.76 < 15.0	17.0 < 10.0	16.9 11.2	5.07 22.6	32.9 26.9	< 1.00	< 1.00 < 10.0	< 1.00 < 10.0	< 10.0	< 1.00 < 10.0	1.14 < 10.0	1.77 < 10.0	5.21 < 10.0	< 1.00 < 10.0	1.25 < 10.0	< 0.50 < 0.50 J	16.8 < 10.0	15.7 < 10.0	1.90 < 10.0	3.27 < 10.0	< 1.00 < 15.0	< 1.00 < 15.0	< 1.00 < 5.00	< 1.00 < 5.00	< 1.00 < 10.0	4.65 < 10.0	10.1 13.6 J	22.5 < 10.0 J
			17	09/14/15	MW-08-091415	< 15.0	< 15.0	14.0	15.8	28.6	29.6	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	MW-08	5 - 20	15	12/08/15	MW-08-120815 MW-08-021716	< 1.00	< 1.00	7.04	8.54	31.2	31.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	6.32	6.39	1.21 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	9.58	7.58
			15	02/17/16 06/28/16	MW-08-062816	< 1.00 < 1.00	< 1.00 < 1.00	5.14 9.40	9.63	27.2 31.2	37.4	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00	< 1.55 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 0.50 < 0.50	5.19 6.62	5.42 6.37	2.15 J < 1.00	< 1.00 J < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00	< 1.00 < 1.00	1.49 < 1.00	17.2 J 7.40	12.6 J 7.31
			15	09/07/16	MW-08-090716	< 1.00	< 1.00	11.3	10.7	29.1	31.6	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	6.84	7.69	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	7.37
			18 19	07/07/15 09/15/15	MW-09-070715 MW-09-091515	< 15.0 < 15.0	< 15.0 < 15.0	47.2 49.0	50.6 50.9	50.5	43.2 49.4	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 < 10.0	< 0.50 < 0.50	77.4 97.1	87.8 91.3	< 10.0 < 10.0	< 10.0 < 10.0	< 15.0 < 15.0	< 15.0 < 15.0	< 5.00 < 5.00	< 5.00 < 5.00	< 10.0 < 10.0	< 10.0 < 10.0	< 10.0 16.8	< 10.0 18.1
	MW-09	9 - 24	18	12/09/15	MW-09-120915	2.81	2.44	68.4	73.4	10.1	9.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	9.03	7.86	< 1.00	< 1.00	< 0.50	12.6	11.5	1.73 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	16.8	21.7	12.2	13.9
		r	18 18	02/17/16 06/29/16	MW-09-021716 MW-09-062916	< 1.00 1.79	< 1.00 1.87	24.4 44.6	24.8 43.0	5.56 38.6	8.36 39.9		< 1.00 < 1.00	1.19 J < 1.00	< 1.00 J	< 1.00 < 1.00	< 1.00 < 1.00	< 3.04 3.28	7.66 3.31 J+	< 1.00 < 1.00	< 1.00 < 1.00	< 0.50 < 0.50	7.46 67.7	7.57 68.2	< 1.00 3.47	< 1.00 3.46	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	2.31 4.23	4.00 4.62	< 5.00 7.02	9.46 < 5.00
			20	09/07/16	MW-09-082916 MW-09-090716	1.79	2.02	54.5	58.2	43.8		< 1.00			< 1.00	< 1.00	< 1.00	4.22	4.59	< 1.00	< 1.00	< 0.50	86.4	86.4	2.53	3.00	< 1.00	< 1.00	< 1.00	< 1.00	5.21	5.72		8.29
	MW-10		22	10/06/16	MW-10-100616	< 1.00	< 1.00	11.3	10.8	4.02	3.79		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	1.32	1.21	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	10.7	9.33
	MW-11 MW-12		7	09/08/16 09/06/16	MW-11-090816 MW-12-090616	< 1.00 1.56	< 1.00 1.44		58.4 83.7	14.8 1.99	17.9 3.22		< 1.00 < 1.00	< 1.00 < 1.00	1.43 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	2.86 < 1.00	6.41 2.09	< 1.00 < 1.00	1.12 < 1.00	< 0.50 < 0.50	62.0 20.6	62.8 18.2	2.40 2.37	2.92 2.58	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	< 1.00 < 1.00	2.61 3.10	5.11 3.85	5.46 10.4	27.7 28.4
	MW-13	5 - 11.5	9	09/07/16	MW-13-090716	< 1.00	< 1.00	8.76	8.27	3.32	3.51	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	11.1	10.6	1.25	1.21	< 1.00	< 1.00	< 1.00	< 1.00	6.59	5.76		11.8
	MW-14 MW-15		<del></del>	NA 09/01/16	NA MW-15-090116	NA < 1.00	NA < 1.00	NA 23.2	NA 29.0	NA 16.9	NA 35.9		NA < 1.00	NA < 1.00	NA 2.52	NA < 1.00	NA 1.10	NA < 1.00	NA 4.24	NA < 1.00	NA 1.18	NA < 0.50	NA 16.8	NA 19.7	NA 1.40	NA 2.72	NA < 1.00	NA 5.35	NA < 5.00	NA 16.5				
<del> </del>				09/01/16	OW-8US-090616	< 1.00	< 1.00	5.73	5.65	2.09		< 1.00		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	2.12	2.04	< 1.00	< 1.00	< 1.00 J	1.32	< 1.00	< 1.00	< 1.00			< 5.00
	OW-8US	JJ - /5		09/06/16	OW-8US-090616-DUP	< 1.00	< 1.00	5.88	5.87	1.98	2.12	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 0.50	2.12	1.91	< 1.00	< 1.00	1.32 J	1.16	< 1.00	< 1.00	< 1.00	<del>                                     </del>		< 5.00
			<del></del>	08/23/16 08/23/16	B-02-W-12.25-160823 B-02-W-15.5-160823	< 15.0 < 15.0 J	< 15.0 < 15.0	363 39.1	402 158	< 10.0 29.8	713 2,910		< 10.0 < 10.0	< 10.0 < 10.0	158 613	< 10.0 < 10.0	48.0 112	< 10.0 < 10.0	201 1,890	< 10.0 < 10.0	134 214	< 0.50 4.01	308	191 57.7	< 10.0 < 10.0	53.9 638	< 15.0 < 15.0	< 15.0 < 15.0	< 5.00 < 5.00	< 5.00 < 5.00	66.5 25.5 J	456 660	14.6 12.0 J	649 1,490
	B-02		15.5	08/23/16	B-02-W-15.5-160823-DUP	20.9 J	< 15.0	45.5	142	30.1	2,830	13.0	< 10.0	< 10.0	589	< 10.0	102	< 10.0	1,850	< 10.0	204	3.96 J	44.8	50.2	< 10.0	598	< 15.0	< 15.0	< 5.00	< 5.00	43.2 J	606	17.7 J	1,350
səlc			<b>-</b>	08/23/16 08/23/16	B-02-W-23-160823 B-02-W-25.5-160823	< 15.0 41.2	< 15.0 < 15.0	13.3 119	31.6 171	10.7 24.1		< 10.0 < 10.0	< 10.0 15.1	< 10.0 < 10.0	242 281	< 10.0 < 10.0	47.6 31.6	< 10.0 < 10.0	576 130	< 10.0 < 10.0	46.0 161	1.07 < 0.50	50.9 87.3	30.8 26.5	< 10.0 < 10.0	117 148	< 15.0 < 15.0	< 15.0 < 15.0	< 5.00 < 5.00	< 5.00 < 5.00	< 10.0 22.3	214 325	< 10.0 12.6	495 517
sam	NAVA 12			08/29/16	MW-12-W-8-160829	1.38	< 10.0	55.1	180	23.8		< 10.0		1.03	148	< 1.00	66.4	< 1.00	803	< 1.00	133	< 0.50	29.0	43.8	1.75	175	< 1.00	< 10.0	< 1.00	< 10.0	4.05	257	39.5	478
irab	MW-12		+	08/29/16	MW-12-W-11.5-160829	6.32	< 10.0	111	282	35.1	-	10.8		< 1.00	277	< 1.00	201	< 1.00	1,770	< 1.00	444	< 0.50	35.1	75.2	2.06	394	< 1.00	< 10.0	< 1.00	< 10.0	5.53	407		1,600
"	MW-13 MW-14			08/29/16 08/30/16	MW-13-W-12.5-160829 MW-14-W-18.5-160830	< 1.00 11.6	< 10.0 24.9		57.6 69.2	11.2 31.4		< 10.0 < 10.0		< 1.00 < 1.00	24.8 < 10.0	< 1.00 < 1.00	10.9 20.1	< 1.00 1.10	178 15.4	< 1.00 < 1.00	32.5 < 10.0	< 0.50 1.17	22.4 56.6 J	25.2 29.5 J	1.48 < 1.00	25.4 103	< 1.00 < 1.00	< 10.0 < 10.0	< 1.00 < 1.00	< 10.0 < 10.0	< 1.00 5.53	55.2 < 10.0	25.3 12.5	136 < 50.0
	MW-15		14	08/30/16	MW-15-W-14-160830	10.2 J	< 10.0 J	201	1,230	39.0	3,040	12.1	< 10.0	< 2.00	472	< 2.00	130	< 2.00	601	< 2.00	321	< 0.50	88.7	148	< 2.00	329	< 2.00	< 10.0	< 2.00	< 10.0	32.7	348	19.7	1,940
			24	08/30/16	MW-15-W-24-160830 ia Maximum Contaminant Level	5.08	< 10.0	62.9	404	23.0		< 10.0	< 10.0	< 1.00	469	< 1.00	65.0	1.31	331	< 1.00	88.9	< 0.50	54.1	73.1	1.07	246	< 1.00	< 10.0	< 1.00	< 10.0	14.8	295	11.1	777
				Californi	ia iviaxiiiluiii Contaminant Level	0	Ū	10	10	1,000	1,000	4	Э	50	50	nl	[ []	1,300	1,300	15	15	0.63	1 111	nl	100	100	50	50	nl	nl	nl	111	nl	nl

Notes:

Groundwater samples were analyzed for CAM 17 Metals by Eurofins Calscience Environmental Laboratories, in Garden Grove, California.

Samples were analyzed using EPA Methods 6010B and 7470A. Only detected metals shown in this table. Other metals were not detected above the laboratory Minimum Reporting Limit.

Shaded cells represent an exceedance of the listed maximum contaminant level. <x.xx: Indicates sample result was less than laboratory minimum reporting limit.

ft bgs: Feet below ground surface

μg/l: micrograms per liter nl: not listed

J: Estimated concentration.

J+: Estimated concentration.

J+: Estimated concentration biased high based on data validation

## Concentration is above MCL

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#### Table 5 Groundwater Sample Results - General Minerals Crystal Geyser Roxane Olancha, CA

Location	Date Sampled	Sample ID	Alkalinity, Total mg/l	Ammonia Nitrogen mg/l	Bicarbonate (as CaCO3) mg/I	Calcium mg/l	Chloride mg/l	Magnesium mg/l	MBAS mg/l	Nitrate and Nitrite mg/l	Nitrogen, Total (Calculated) mg/l	Nitrogen, Total Kjeldahl mg/l	Phosphate mg/l	Phosphorus, Total as P mg/l	Sodium mg/l	Sulfate mg/l	Total Dissolved Solids mg/l
	07/07/15	MW-01-070715	114 J	< 0.10 J	NA	37.7	3.1 J	3.63	< 0.10 J	0.55 J	0.54 J	< 0.500 J	< 0.31 J	< 0.10 J	21.8	26 J	230 J
	09/14/15	MW-01-091415	123	< 0.10	NA	30.2	2.6	2.87	< 0.10	0.29	< 0.50	< 0.500	0.42	0.14	17.6	18	130
MW-01	12/09/15	MW-01-120915	79	< 0.10	79	21.6	2.2	2.22	< 0.10	0.41 J+	< 0.50	< 0.500	0.67	0.22	15.2	14	105
10100 01	02/16/16	MW-01-021616	77	< 0.10	77	25.1	2.1	2.99	0.16	0.4	< 0.50	< 0.500	0.47	0.15	15.9	16	175
	06/28/16	MW-01-062816	72	< 0.10	72	22.8	2.1	2.97	< 0.10	0.33	< 0.50	< 0.500	0.32 J-	0.10 J-	16	17	165
	09/01/16	MW-01-090116	62	< 0.10	62 NA	19.8	1.9	2.28	< 0.10	0.24	1	0.84 J	0.49	0.16	13.2	13	105
	07/07/15 09/14/15	MW-02-070715 MW-02-091415	72 64	< 0.10 0.11	NA NA	23.1 21.1	2 1.5	2.54 1.96	< 0.10 < 0.10	< 0.10 < 0.10	< 0.50 < 0.50	< 0.500 < 0.500	< 0.31 0.37	< 0.10 0.12	9.42 8.68	9.2	160 125
	12/09/15	MW-02-120915	78	< 0.11	78	28.9	2.9	2.76	< 0.10	< 0.10	< 0.50	< 0.500	0.43	0.12	10.3	25	145
MW-02	02/16/16	MW-02-021616	76	< 0.10	76	30	2.8	2.89	0.24	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	10.5	23	162
	06/28/16	MW-02-062816	72	< 0.10	72	27.9	2.5	2.49	< 0.10	< 0.10	< 0.50	< 0.500	0.47	0.15	10.3	21	175
	09/01/16	MW-02-090116	76	< 0.10	76	29.2	2.7	2.61	< 0.10	< 0.10	0.98	0.98 J	0.76	0.25	9.81	23	125
	07/07/15	MW-03-070715	120 J	0.56 J	NA	20.9	9.7 J	5.19	< 0.10 J	< 0.10 J	1.1 J	1.10 J	0.94 J	0.31 J	41.3	12 J	245 J
	09/15/15	MW-03-091515	120	1.1	NA	21.9	5.9	3.22	< 0.10	< 0.10	1.5 J+	1.50 J+	1.1	0.35	32.5	8	190
MW-03	12/08/15	MW-03-120815	92	1	92	56.2	6.5	5.62	0.14	0.62 J+	1.9	1.3	0.76	0.25	40.3	140	320
	02/16/16	MW-03-021616	100	0.87	100	30.8	6.4	6.46	< 0.10 J	< 0.10	1.9	1.8	0.54	0.18	78.8	39	235
	06/29/16 09/01/16	MW-03-062916 MW-03-090116	114 117	0.87	114 117	21.6 22.4	5.2 4.6 J-	3.12 2.99	0.28 J+ < 0.10	< 0.10 < 0.10	1.1	1.1 1.4 J	0.47 J- 1.3	0.15 J- 0.44	30.6 31.7	3.1 14	180 165
	09/01/16	MW-04-070615	916 J	0.87 0.11 J	NA	7.4	4.6 J-	1.1	< 0.10 J	0.23 J	1.4 1.6 J	1.40 J	4.8 J	1.6 J	934	880 J	2,340 J
	07/06/15	MW-04-070615-DUP	916 J	0.11 J	NA NA	7.4	16 J	1.1	< 0.10 J	0.23 J	1.6 J	1.40 J	4.8 J 4.9 J	1.6 J	909	890 J	2,340 J
	09/15/15	MW-04-091515	841	< 0.10 J	NA NA	2.33	8.5	0.295	< 0.10	0.233	1.1 J+	0.700 J+	7.2	2.4	823	840	1,780
	09/15/15	MW-04-091515-DUP	841	0.11 J	NA	2.27	8.6	0.29	< 0.10	0.38	1.4 J+	0.980 J+	7.2	2.4	798	840	2,040
	12/08/15	MW-04-120815	534	0.17	182	5.26	< 10	0.41	0.1	< 0.10	2	2	4.6	1.5	672	610	1,720
MW-04	12/08/15	MW-04-120815-DUP	528	0.22	192	5.17	< 10	0.388	0.1	< 0.10	2.5	2.5	4.7	1.5	663	610	1,640
10100-04	02/17/16	MW-04-021716	308	< 0.11	132	12.7	14	0.682	0.10 J-	0.27	0.91	0.63	1.2	0.38	272	250	800
	02/17/16	MW-04-021716-DUP	306	< 0.11	130	12.3	14	0.676	0.12 J-	0.26	0.96	0.7	1.2	0.41	264	240	770
	06/28/16	MW-04-062816	260	< 0.10	78	12.8 J	6.5	1.29 J	0.12 J-	0.37	< 0.50	< 0.500	1.1	0.35	334	390	970
	06/28/16	MW-04-062816-DUP	262	< 0.10	76	7.79 J	6.4	0.434 J	< 0.10 J	0.34	< 0.50	< 0.500	1.2	0.4	316	400	970
	09/08/16 09/08/16	MW-04-090816 MW-04-090816-DUP	337 327	< 0.10 < 0.10	189 195	< 1.93 < 1.97	6.9 6.9	0.353 0.37	< 0.10 < 0.10	0.43	0.91 0.84	0.91 J 0.84 J	1.6 1.6	0.53 0.53	379 383	380 400	975 1,050
	07/07/15	MW-05-070715	556 J	0.39 J	NA	16.3	19 J	2.37	0.11 J	< 0.10 J	1.8 J	1.80 J	4.9 J	1.6 J	716	830 J	1,960 J
	09/15/15	MW-05-091515	251	0.34	NA NA	24.9	15	2.3	< 0.10	< 0.10	1.1 J+	1.10 J+	1.8	0.59	267	410	830
	12/08/15	MW-05-120815	164	0.22	164	47.9	72	4.16	0.13	< 0.22	< 0.50	< 0.500	0.62	0.2	158	210	535
MW-05	02/17/16	MW-05-021716	162	0.22 J+	162	46.4	71	3.8	0.15 J-	< 0.10	0.67	0.63	0.54	0.18	142	180	565
	06/29/16	MW-05-062916	282	< 0.10	230	29.4	10	2.1	0.19 J+	0.32	1.2	0.84	1.1	0.37	339	480	1,080
	09/08/16	MW-05-090816	266	0.17	260	19 J+	10	1.47	< 0.10	0.14	< 0.50	< 0.500 J	1.5	0.5	258	300	780
	07/06/15	MW-06-070615	180 J	0.17 J	NA	48.5	190 J	8.91	< 0.10 J	< 0.10 J	0.86 J	0.840 J	1.5 J	0.49 J	192	48 J	635 J
	09/15/15	MW-06-091515	153	0.11	NA 122	53	290	7.14	< 0.10	< 0.10	0.70 J+	0.700 J+	0.84	0.27	185	35	605
MW-06	12/08/15	MW-06-120815	139 121	< 0.10 < 0.10	139 121	58.3 34.8	330 89 J+	7.4 3.92	< 0.10 0.25	0.15 0.12	0.97 < 0.50	0.7 < 0.500	1.7 1.7	0.54 0.54	249 71.9	33 33	750 355
	02/16/16 06/29/16	MW-06-021616 MW-06-062916	156	0.17	156	92.9	620	10.6	0.25 0.24 J+	< 0.12	0.79	0.7	1.7	0.45	349	33	1,480
	09/07/16	MW-06-090716	178	0.17	138	16.1	330	1.86	< 0.10	< 0.10	< 0.50	< 0.500 J	1.1	0.36	272	37	755
	07/06/15	MW-07-070615	248 J	< 0.10 J	NA	6.56	72 J	1.69	< 0.10 J	< 0.10 J	1.3 J	1.30 J	1.8 J	0.58 J	145	58 J	1,040 J
	09/15/15	MW-07-091515	190	< 0.10	NA	14.5	37	3.91	< 0.10	< 0.10	0.70 J+	0.700 J+	1.6	0.51	113	45	455
MW-07	12/08/15	MW-07-120815	160	< 0.10	160	10.8	28	1.75	0.3	< 0.10	0.84	0.84	2.5	0.83	94.4	36	385
10100-07	02/16/16	MW-07-021616	156	< 0.10	156	26.4	24	3.27	< 0.10 J	< 0.10	0.7	0.63	2	0.65	31.5	33	305
	06/29/16	MW-07-062916	153	< 0.10	153	56.8	42	7.87	0.79 J+	< 0.10	0.76	0.7	0.62	0.2	78.9	34	305
	09/07/16	MW-07-090716	148	0.14	148	22.6	56	2.85	0.38	< 0.10	0.63	0.63 J	1.3	0.42	86.8	60	320
	07/07/15	MW-08-070715	120 J 118	0.39 J 0.39	NA NA	22.3 23	4.3 J 4.9	1.49 1.5	< 0.10 J < 0.10	< 0.10 J < 0.10	0.84 J 0.7	0.840 J 0.7	0.43 J 0.58	0.14 J 0.19	30.8 32	4.2 J 5.4	205 J 230
	09/14/15 12/08/15	MW-08-091415 MW-08-120815	118	0.39	114	20.5	4.9	1.58	0.12	1.9 J+	3	1	0.58	0.19	30.1	4.4	255
MW-08	02/17/16	MW-08-021716	116	0.48 J+	116	21.4	5	1.73	< 0.10	< 0.10	0.81	0.77	0.75	0.16	28.1	3.3	145
	06/28/16	MW-08-062816	116	0.45	116	22.3	4.1	1.6	< 0.10 J	< 0.10	2.9	2.9	0.37	0.12	30.7	4.4	205
	09/07/16	MW-08-090716	112	0.45	112	21.5 J	4.1	1.59	< 0.10	< 0.10	0.56	0.56 J	0.6	0.19	30.2	5.2	175
	07/07/15	MW-09-070715	174	< 0.10	NA	154	6.8	7.11	< 0.10	0.28	0.79	0.56	0.44	0.14	75.3	360	730
	09/15/15	MW-09-091515	156	0.11	NA	151	6.6	6.83	< 0.10	0.33	0.98 J+	0.700 J+	0.49	0.16	88.8	400	745
MW-09	12/09/15	MW-09-120915	136	< 0.10	136	15.1	6.9	0.8	< 0.10	< 0.17	< 0.50	< 0.500	1.2	0.39	70.9	39	305
	02/17/16	MW-09-021716	138	< 0.10	122	9.65	6.7	0.586	0.11	< 0.10	< 0.50	< 0.500	0.65	0.21	62	19	215
	06/29/16 09/07/16	MW-09-062916 MW-09-090716	175 154	< 0.10 < 0.10	175 154	125 119	5.9 6.4	6.04 5.84	0.20 J- < 0.10 J	0.26	0.78 0.85	0.56 0.56 J	< 0.31 1.1	< 0.10 0.37	68.5 81.2	310 350 J+	690 665
MW-10	10/06/16	MW-10-100616	65	0.10	65	18.3	< 1.0	1.30	< 0.10 J	< 0.10	0.85	0.630 J	0.36	0.37	6.24	< 1.0	105
MW-11	09/08/16	MW-11-090816	414	0.23	414	66.9	19	5.89	< 0.10	< 0.10	0.63	0.630 J	0.36	0.12	328	390	1,100
MW-12	09/08/16	MW-12-090616	678	0.22	590	2.71	91	3.06	< 0.10	< 0.10	0.98	1 J	2.1	0.68	379	45	1,100
MW-13	09/07/16	MW-13-090716	129	0.31	105	36.9	170	3.67	< 0.10 J	< 0.10	0.56	0.56 J	1.5	0.5	135	42	475
MW-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA
MW-15	09/01/16	MW-15-090116	120	< 0.10	120	42.5	5.7	2.46	< 0.10	< 0.10	< 0.10	< 0.500 J	0.54	0.18	34.5	26	180
	09/06/16	OW-8US-090616	82	1.3	82	12.1	3.7	2.37	< 0.10	< 0.10	2.4	2.4 J	0.42	0.14	18	7.3	110
OW-8US	09/06/16	OW-8US-090616-DUP	69	1.3	69	12.1	3.7	2.34	< 0.10	< 0.10	1.7	1.7 J	0.42	0.14	17.6	7	105

Groundwater samples were analyzed by Eurofins Calscience Environmental Laboratories, in Garden Grove, California. Only detected compounds shown.

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.</p>

mg/I: milligrams per liter

RSL: United States Environmental Protection Agency Regional Screening Level.

MBAS: Methylene Blue Activated Substances

NA: Not Analyzed

nl: not listed

J: Estimated concentration

J+: Estimated concentration biased high based on data validation

J-: Estimated concentration biased low based on data validation

## Concentration is above secondary MCL

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**Table 6**Groundwater Sample Results - Total and Fecal Coliform
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Fecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
	07/07/15	MW-01-070715	< 2.0 R	2.0 J
	09/14/15	MW-01-091415	< 2.0	< 2.0
NAVA / O1	12/09/15	MW-01-120915	< 1.8	< 1.8
MW-01	02/16/16	MW-01-021616	< 1.8	< 1.8
	06/28/16	MW-01-062816	< 1.8	< 1.8
	09/01/16	MW-01-090116	< 1.8	< 1.8
	07/07/15	MW-02-070715	< 2.0 R	< 2.0 R
	09/14/15	MW-02-091415	< 2.0	30
NAVA ( 0.3	12/09/15	MW-02-120915	< 1.8	< 1.8
MW-02	02/16/16	MW-02-021616	< 1.8	< 1.8
	06/28/16	MW-02-062816	< 1.8	< 1.8
	09/01/16	MW-01-090116	< 1.8	< 1.8
	07/07/15	MW-03-070715	< 2.0 R	2.0 J
	09/15/15	MW-03-091515	< 2.0	23
NAVA / 02	12/09/15	MW-03-120915	< 1.8	< 1.8
MW-03	02/16/16	MW-03-021616	< 1.8	< 1.8
	06/29/16	MW-03-062916	< 1.8	< 1.8
	09/01/16	MW-03-090116	< 1.8	< 1.8
	07/07/15	MW-04-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-04-091515	< 2.0	< 2.0
	09/15/15	MW-04-091515-DUP	< 2.0	< 2.0
	12/08/15	MW-04-120815	< 1.8	< 1.8
	12/08/15	MW-04-120815-DUP	< 1.8	< 1.8
MW-04	02/17/16	MW-04-021716	< 1.8	< 1.8
	02/17/16	MW-04-021716-DUP	< 1.8	< 1.8
	06/29/16	MW-04-062916	< 1.8	2.0 J
	06/29/16	MW-04-062916-DUP	< 1.8	< 1.8 J
	09/08/16	MW-04-090816	< 1.8	< 1.8
	09/08/16	MW-04-090816-DUP	< 1.8	< 1.8
	07/07/15	MW-05-070715	< 2.0 R	2.0 J
	09/15/15	MW-05-091515	< 2.0	< 2.0
MW-05	12/08/15	MW-05-120815	< 1.8	< 1.8
10100-03	02/17/16	MW-05-021716	< 1.8	2.0
	06/29/16	MW-05-062916	< 1.8	< 1.8
	09/08/16	MW-05-090816	< 1.8	< 1.8
	07/07/15	MW-06-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-06-091515	< 2.0	< 2.0
NAVA / O.C.	12/08/15	MW-06-120815	< 1.8	< 1.8
MW-06	02/16/16	MW-06-021616	< 1.8	< 1.8
	06/29/16	MW-06-062916	< 1.8	< 1.8
	09/07/16	MW-06-090716	< 1.8	< 1.8

### **Table 6**Groundwater Sample Results - Total and Fecal Coliform Crystal Geyser Roxane Olancha, CA

Location	Date Sampled	Sample ID	Fecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
	07/06/15	MW-07-070615	2.0 J	2.0 J
	09/15/15	MW-07-091515	< 2.0	23
MW-07	12/08/15	MW-07-120815	< 1.8	< 1.8
10100-07	02/16/16	MW-07-021616	< 1.8	< 1.8
	06/29/16	MW-07-062916	< 1.8	< 1.8
	09/07/16	MW-07-090716	4.5	4.5
	07/07/15	MW-08-070715	< 2.0 R	2.0 J
	09/14/15	MW-08-091415	< 2.0	2.0
MW-08	12/08/15	MW-08-120815	< 1.8	< 1.8
10100-08	02/17/16	MW-08-021716	< 1.8	< 1.8
	06/29/16	MW-08-062916	< 1.8	< 1.8
	09/08/16	MW-08-090816	< 1.8	< 1.8
	07/07/15	MW-09-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-09-091515	8.0	8.0
MW-09	12/09/15	MW-09-120915	< 1.8	< 1.8
10100-09	02/17/16	MW-09-021716	< 1.8	< 1.8
	06/29/16	MW-09-062916	< 1.8	13
	09/07/16	MW-09-190716	< 1.8	23
MW-10	10/06/16	MW-10-100616	< 1.8	< 1.8
MW-11	09/08/16	MW-11-090816	< 1.8	< 1.8
MW-12	09/07/16	MW-12-090716	< 1.8	< 1.8
MW-13	09/07/16	MW-13-090716	< 1.8	2.0
MW-14	NA	NA	NA	NA
MW-15	09/16/16	MW-15-091616	2.0	2.0
OW-8US	09/07/16	OW-8US-090716	< 1.8	< 1.8
0 44-802	09/07/16	OW-8US-090716-DUP	< 1.8	< 1.8

#### Notes:

Samples analyzed by BC Laboratories, Inc.

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.</p>

MPN/100ml: Most probable number per 100 milliliters.

J: Estimated concentration

R: Data rejected due to data quality issues.

## **Table 7**Soil Vapor Sample Results - Detected VOCs Crystal Geyser Roxane Olancha, CA

Lasatian	Depth	Data Campulad	Commission ID	1,1,1-TCA	1,1-DCA	1,2,4-TMB	1,3,5-TMB	MEK	Acetone	1-E-4-MB	Benzene	Butylbenzene	CS <sub>2</sub>	Chloromethane	Ethylbenzene	Isopropyl Alcohol	m&p-Xylenes	o-Xylene	sec-Butylbenzene	tert-Butylbenzene	PCE	Toluene	TCE	VA
Location	(ft. bgs)	Date Sampled	Sample ID	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³	μg/m³
		07/08/15	SV-01-5-070815	< 2.9	< 2.1	< 7.8	< 2.6	< 4.7 J	25	< 2.6	< 1.7 J	< 2.9	< 6.6	1.1 J	< 2.3 J	18	< 9.2	< 2.3 J	< 2.9	< 2.9	< 3.6 J	< 2.0 J	< 2.8	< 7.5
		07/08/15	SV-01-5-070815-DUP	< 2.8	< 2.1	< 7.7	< 2.6	9.6 J	60	< 2.6	20 J	< 2.9	< 6.5	< 1.1 J	4.8 J	20	< 9.0	2.3 J	< 2.9	< 2.9	5.2 J	7.8 J	< 2.8	< 7.3
		09/16/15	SV-01-5-091615	< 2.7	< 2.0	< 7.4	< 2.5	< 4.4	17	< 2.5	< 1.6 J	< 2.7	< 6.2	1	< 2.2	< 12	< 8.7	< 2.2 J	< 2.7	< 2.7	< 3.4	3.5 J	< 2.7 J	< 7.0
		09/16/15	SV-01-5-091615-DUP	< 5.0	< 3.7	< 14	< 4.5	< 8.2	18	< 4.5	9.8 J	< 5.1	< 12	< 1.9	< 4.0	< 23	< 16	6.2 J	< 5.1	< 5.1	< 6.3	53 J	11 J	< 13
		12/09/15	SV-01-5-120915	< 2.9	< 2.2	73 J	27 J	< 4.7	87	17	< 1.7	11 J	< 6.6	< 1.1	< 2.3	< 13	9.4	8	3.4	8.6	< 3.6 J	< 2.0	< 2.9	< 7.5
SV-01	5	12/09/15	SV-01-5-120915-DUP	< 10	< 7.6	< 28 J	11 J	< 17	68	< 9.3	< 6.0	< 10 J	< 23	< 3.9	< 8.2	< 46	< 33	< 8.2	< 10	< 10	16 J	< 7.1	< 10	< 27
34-01		02/17/16	SV-01-5-021716	< 4.4	< 3.3	< 12	< 4.0	< 7.1	< 7.6	< 4.0	< 2.6	< 4.4	< 10	< 1.7	< 3.5	< 20	< 14	< 3.5	< 4.4	< 4.4	< 5.5	3.2 J	< 4.3	< 11
		02/17/16	SV-01-5-021716-DUP	< 3.9	< 2.9	< 10	< 3.5	< 6.3	7.1	< 3.5	< 2.3	< 3.9	< 8.8	< 1.5	< 3.1	< 17	< 12	< 3.1	< 3.9	< 3.9	< 4.8	< 2.7 J	< 3.8	< 10
		06/30/16	SV-01-5-063016	< 2.7 J	< 2.0 J	< 7.4	< 2.5	< 4.4 J	27 J	< 2.5	< 1.6	< 2.7	< 6.2 J	< 1.0	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	15 J	< 1.9 J	8.4 J	< 7.0 J
		06/30/16	SV-01-5-063016-DUP	10 J	15 J	< 7.4	< 2.5	12 J	89 J	< 2.5	< 1.6	< 2.7	8.8 J	< 1.0	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	< 3.4 J	7.0 J	4.5 J	17 J
		08/30/16	SV-01-5-083016	< 2.7	< 2.0	< 7.4	< 2.5	< 4.4 J	30 J	< 2.5	< 1.6	< 2.7	< 6.2	< 1.0	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	< 3.4	< 1.9	9.5 J	< 7.0 J
		08/30/16	SV-01-5-083016-DUP	< 3.2	< 2.4	< 8.6	< 2.9	9.1 J	81 J	< 2.9	< 1.9	< 3.2	< 7.3	< 1.2	< 2.5	< 14	< 10	< 2.5	< 3.2	< 3.2	< 4.0	< 2.2	< 3.1 J	8.5 J
		Screening Leve	l - 2016 RBSL Industrial Air * 1000	4,400,000	7,700	31,000	180,000	22,000,000	140,000,000	nl	420	880,000	3,100,000	390,000	4,900	880,000	440,000	440,000	1,800,000	1,800,000	47,000	22,000,000	3,000	880,000
		Screening Level	- 2016 RBSL Residential Air * 1000	1,000,000	1,800	7,300	42,000	5,200,000	32,000,000	nl	97	210,000	730,000	94,000	1,100	210,000	100,000	100,000	420,000	420,000	11,000	5,200,000	480	210,000
			Screening Level - most stringent	1,000,000	1,800	7,300	42,000	5,200,000	32,000,000	nl	97	210,000	730,000	94,000	1,100	210,000	100,000	100,000	420,000	420,000	11,000	5,200,000	480	210,000

#### Notes:

Soil vapor samples analyzed by Eurofins Calscience Environmental Laboratory. Samples analyzed using EPA Method TO-15.

RBSL: Screening Levels based on Risk-Based Screening Levels (RBSL) for Soil Vapor, calculated following the recommendations of the DTSC Human Health Risk Assessment Note No. 3, dated June 2016

μg/m³: micrograms per cubic meter

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.</p>

RSL: USEPA Regional screening level.

J: Estimated concentration

TCA: Trichloroethane

DCA: Dichloroethane

PCE: Tetrachloroethylene

TCE: Trichloroethylene TMB: Trimethylbenzene

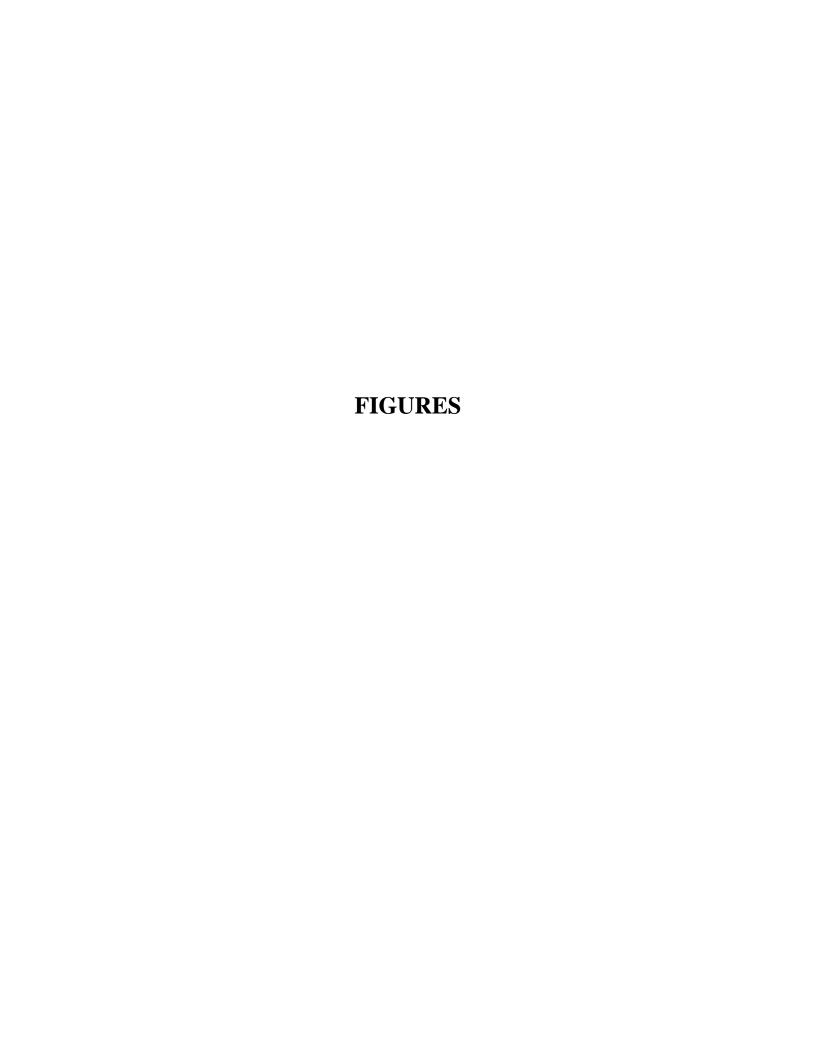
MEK: 2-butanone

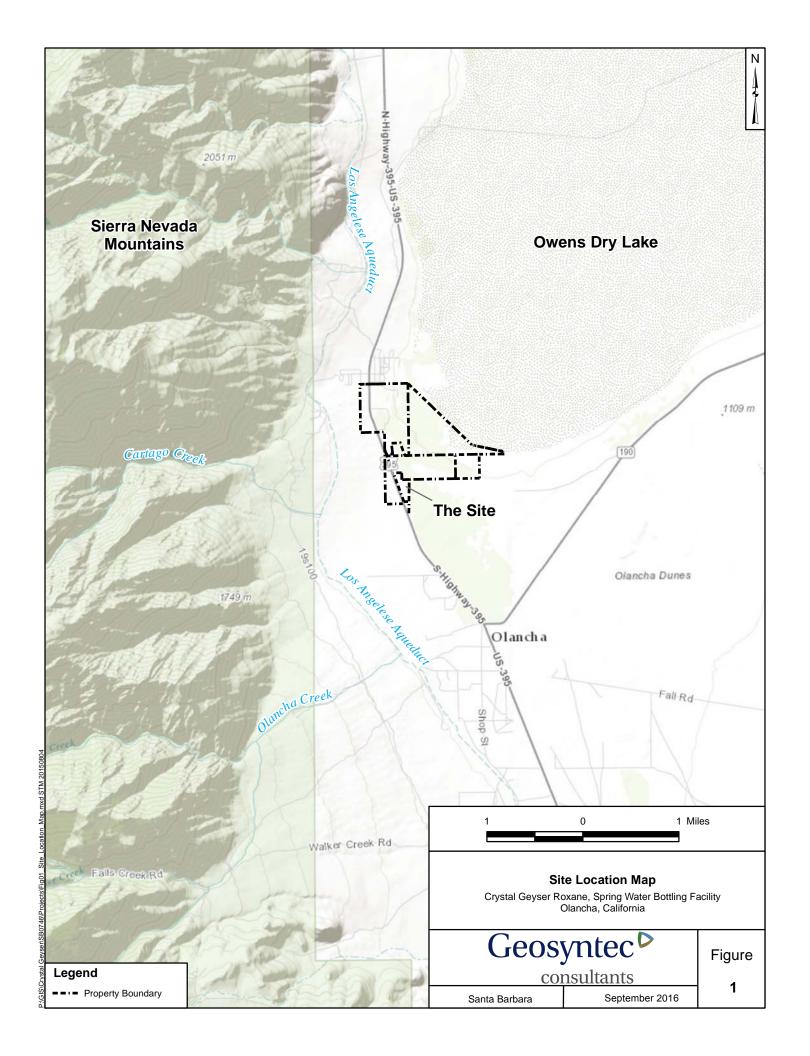
1-E-4-MB: 1-ethyl-4-methyl-benzene

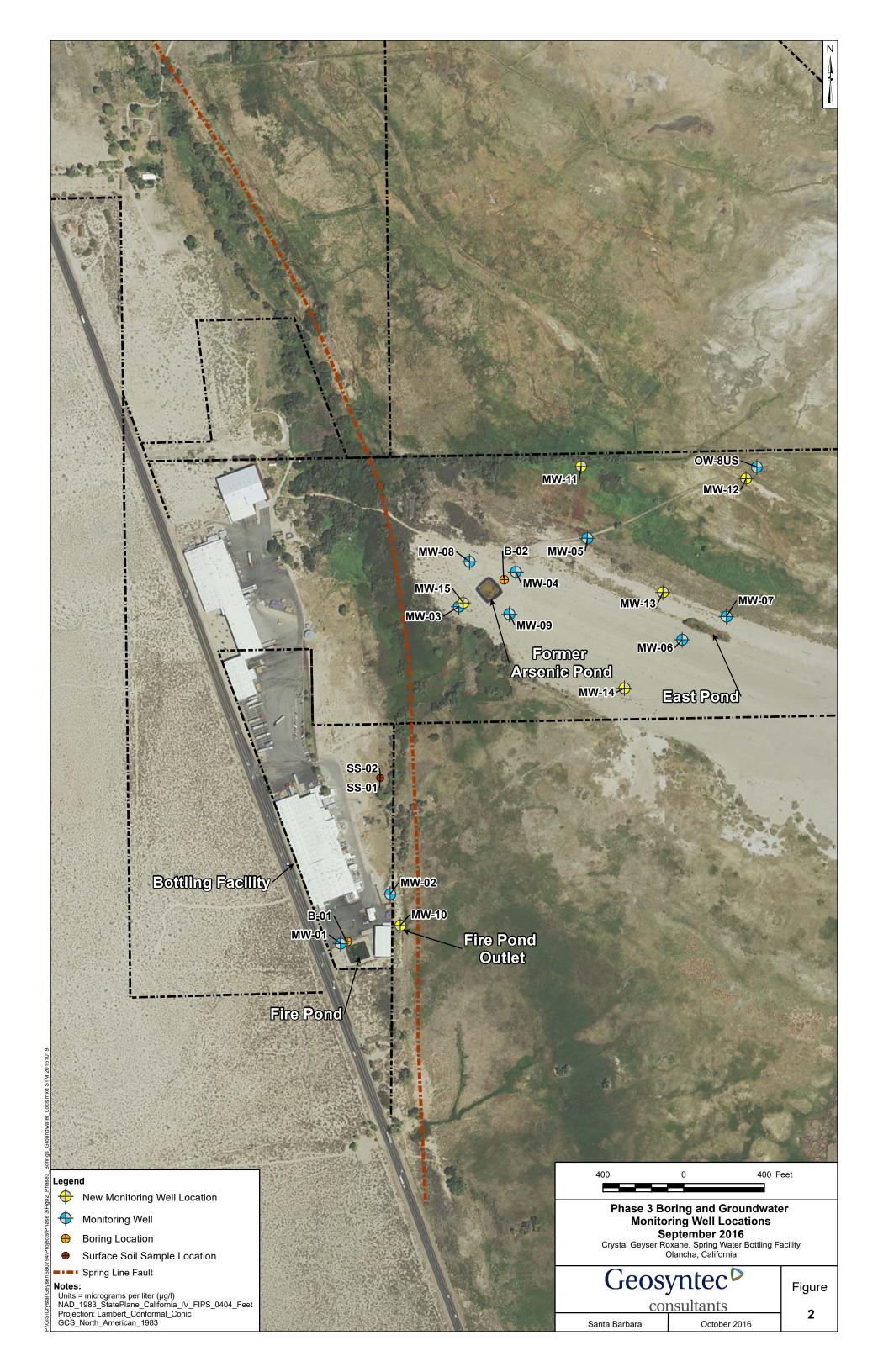
VA: Vinyl Acetate CS<sub>2</sub>: Carbon Disulfide

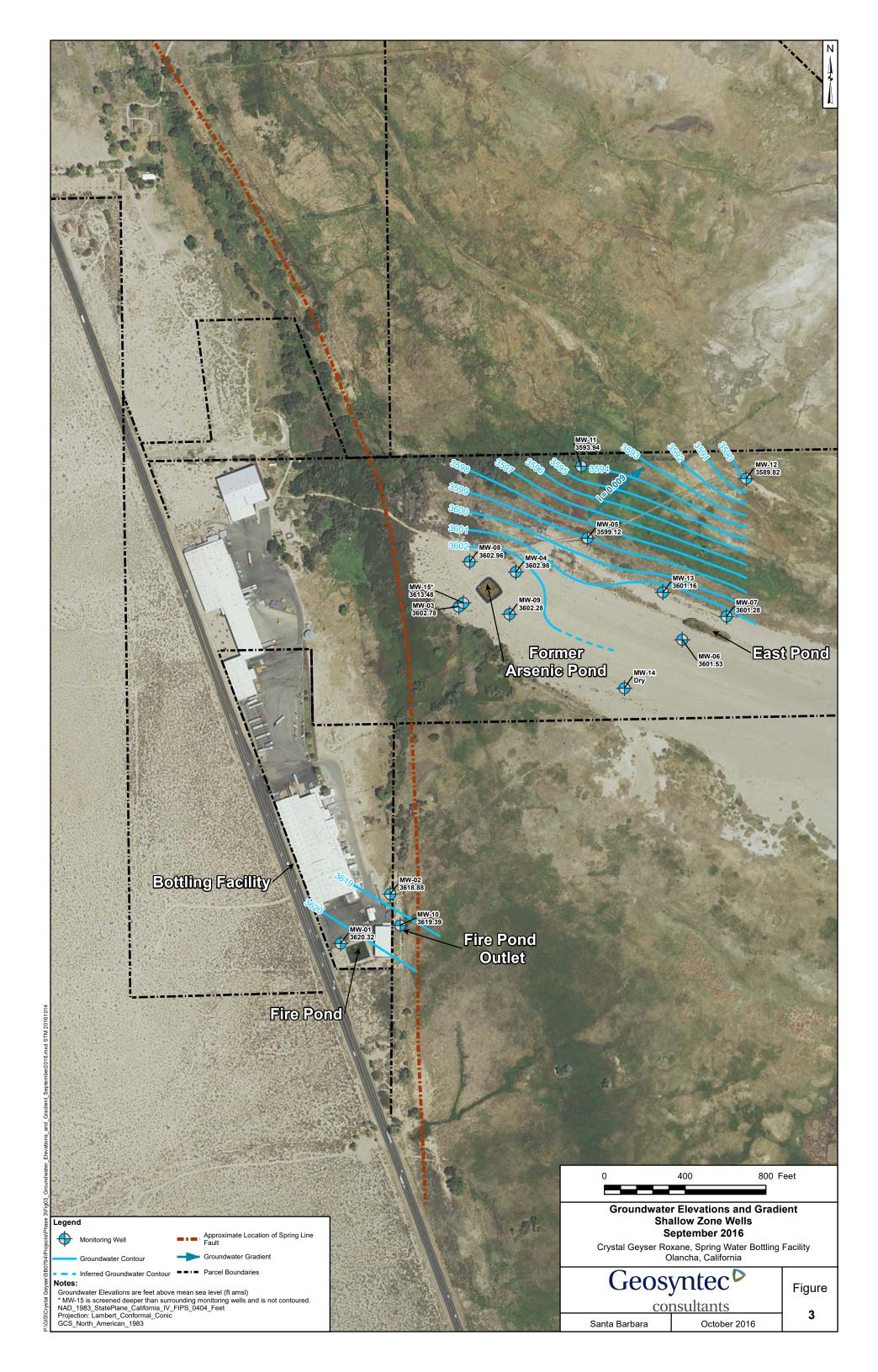
bgs: below ground surface

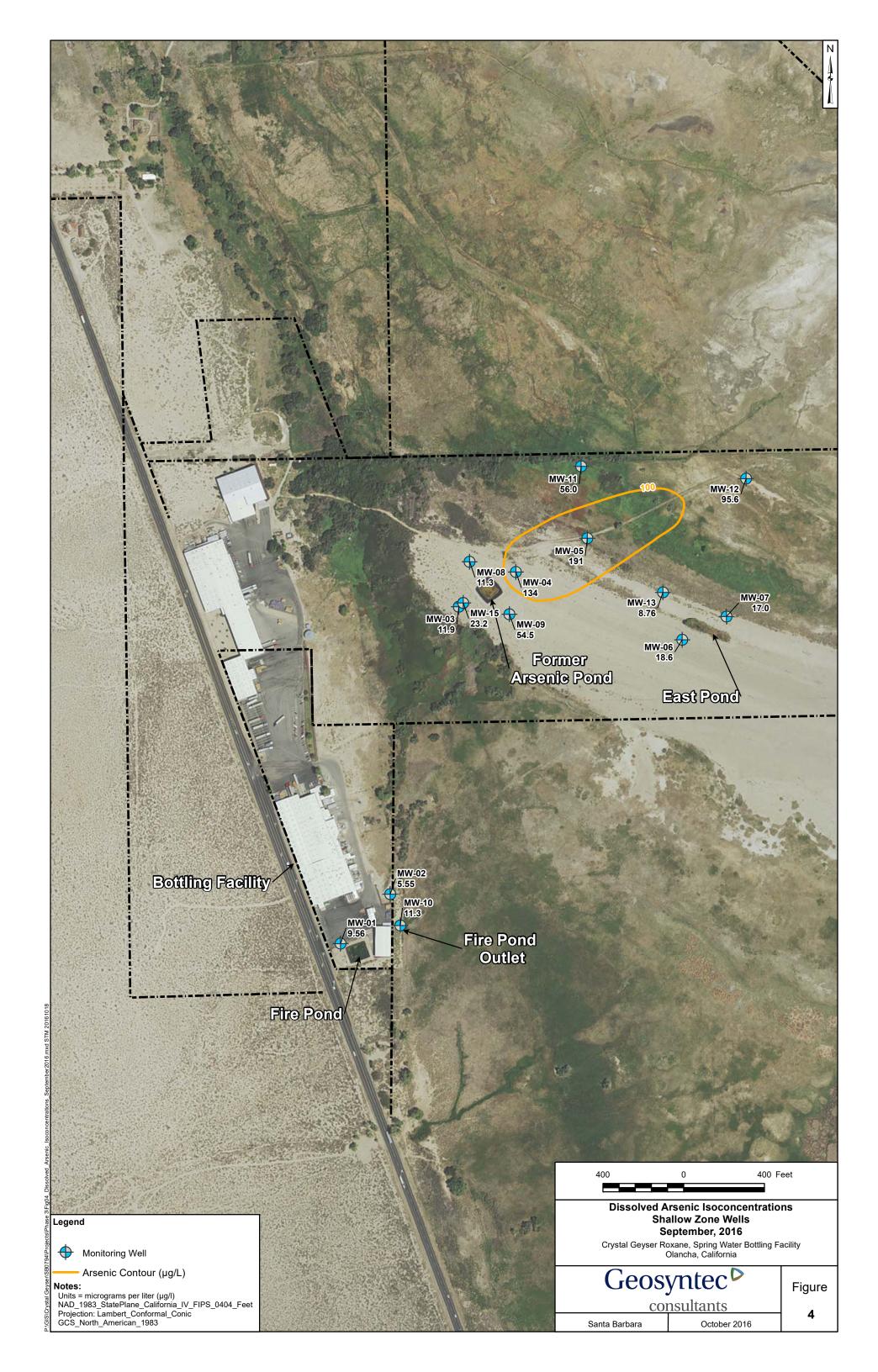
Page 1 of 1 Geosyntec Consultants

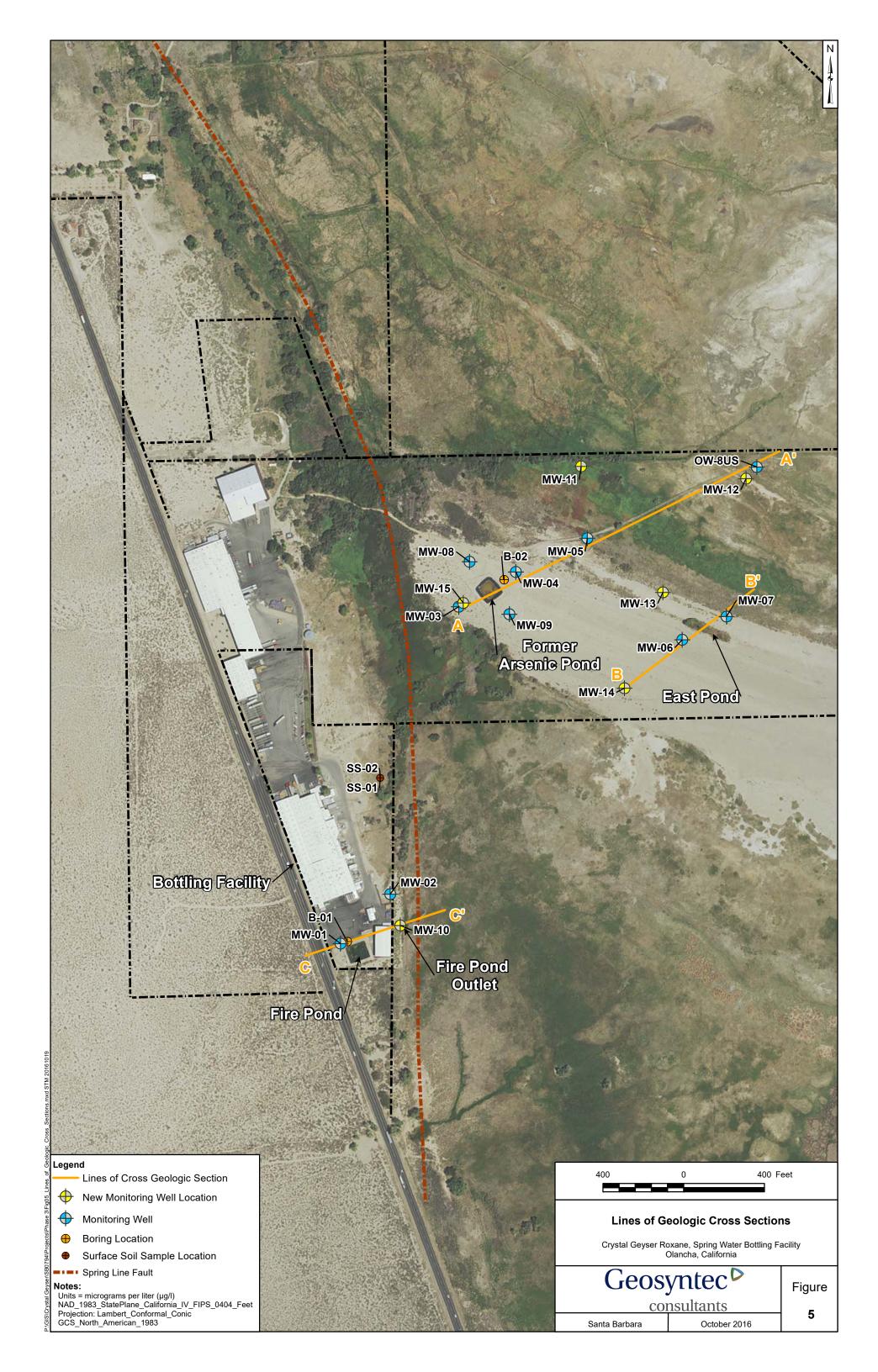


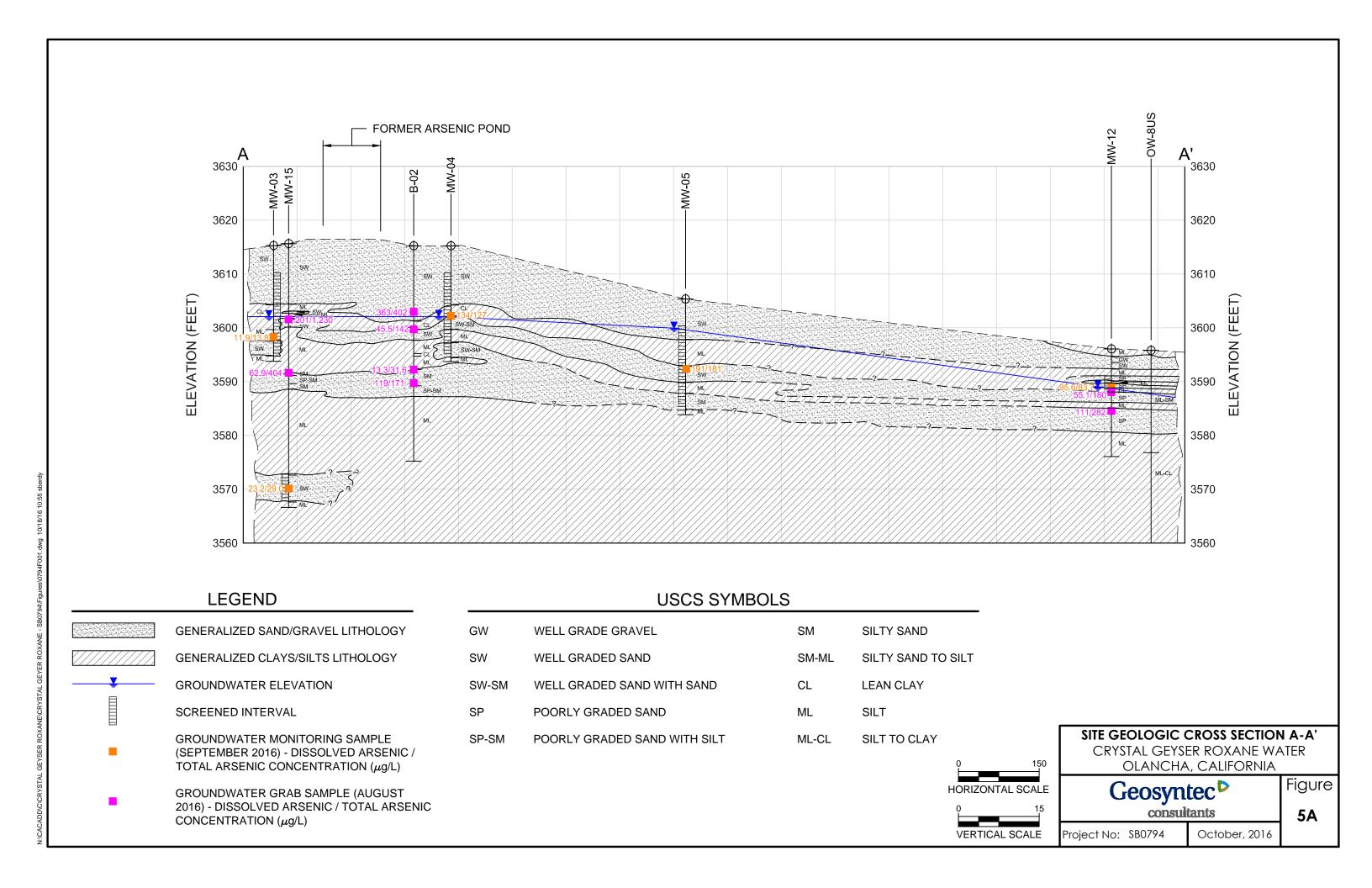


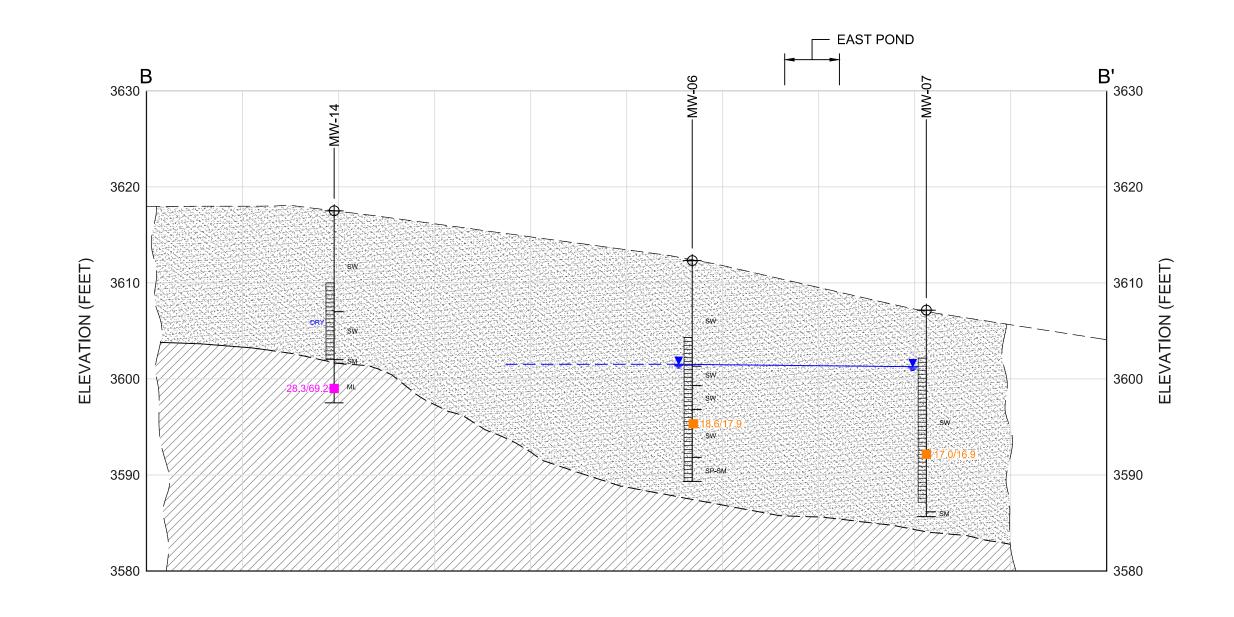












#### **LEGEND**

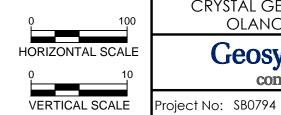
GENERALIZED SAND/GRAVEL LITHOLOGY GENERALIZED CLAYS/SILTS LITHOLOGY **GROUNDWATER ELEVATION** SCREENED INTERVAL

> GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION ( $\mu$ g/L)

GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (µg/L)

#### **USCS SYMBOLS**

SW	WELL GRADED SAND
SP-SM	POORLY GRADED SAND WITH SILT
SM	SILTY SAND
ML	SILT



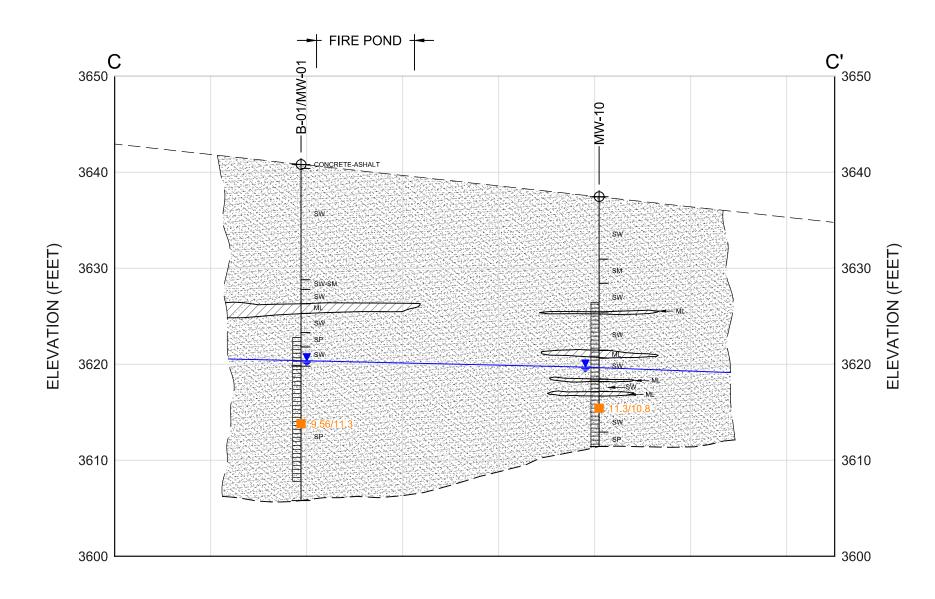
#### SITE GEOLOGIC CROSS SECTION B-B' CRYSTAL GEYSER ROXANE WATER OLANCHA, CALIFORNIA

Geosyntec<sup>D</sup>

October, 2016

**5B** 

Figure consultants





GENERALIZED SAND/GRAVEL LITHOLOGY

GENERALIZED CLAYS/SILTS LITHOLOGY

SCREENED INTERVAL

**GROUNDWATER ELEVATION** 

GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (µg/L)

GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION ( $\mu$ g/L)

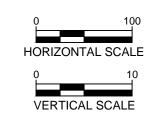
#### **USCS SYMBOLS**

SW WELL GRADED SAND SW-SM WELL GRADED SAND WITH SAND

SP POORLY GRADED SAND

SM SILTY SAND

MLSILT

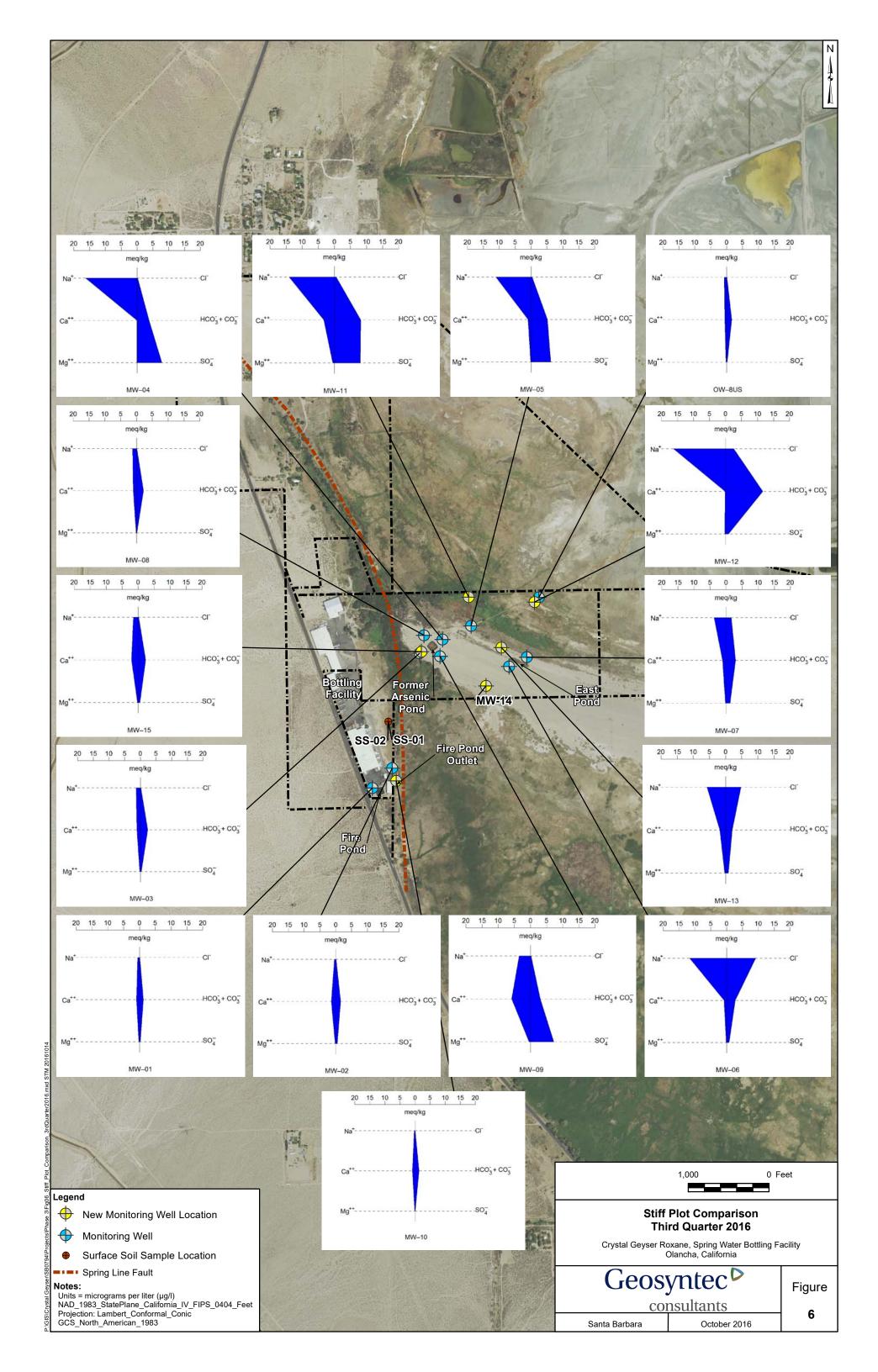


#### SITE GEOLOGIC CROSS SECTION C-C' CRYSTAL GEYSER ROXANE WATER OLANCHA, CALIFORNIA

Geosyntec<sup>D</sup>

Project No: SB0794 October, 2016

Figure consultants 5C



## APPENDIX A WELL PERMITS

P. O. Box 427, Independence, CA 93526 (760) 878-0238 • Fax (760) 876-0239

#### WELL PERMIT APPLICATION

207 W. South Street, Bishop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

	***************************************	.,,	Permit No.
TYPE OF WORK (Check)	U	BE	EQUIPMENT (Check)
New Well Repair or Modification Destruction	Domestic Irrigation [ Monitoring]	Test Well Municipal Other NW-10	Rotary Cable Tool Other Hollow Stern Auger
PROPOSED WELL DEPTH	Steel Other PV	PROPOSE	
PROPOSED SEALING ZO	NE Feet	Negt Corner Portland / Bet Gro	ALING MATERIAL (Check)  at Bentonite Clay Aut  Concrete
PHYSICAL SITE ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO, 033-470-08-00		Start	DATE OF WORK  8/22/15  pletton 8/31/15
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC	period production and the second seco	NAME OF WELL DE Gregg Drilling and Te	RILLER: sting, inc
MAILING ADDRESS: 1210 S US Highway 395 Olancira, CA 93549 PHONE NUMBER:	•	BUSINESS ADDRE 2726 Walnut Ave Signal Hill, CA 90755 PHONE NUMBER:	
(FOR OFFICE USE ONL' DISPOSITION OF APPLICA		C-57 LICENSE NUN 485165	ABER: Cash Deposit Deposit Bond Posted
APPROVED D		\$151.00 Fee p	ald on 3/8//C Receipt No.558499
APPROVED WITH COND.  Minimumft. seel of annu space(minimum 2 inches) is required witnessed by lnyo County Environm Services.	ilar red and must be nental Health	of Environmental He	mply with all regulations of the Department ealth Services and with all ordinances and and of the State of California pertaining to air, modification and destruction at the time of work.
A concrete pad shall be placed and casing that extende at least two fee directions from the outside of the winnimum of 4 inches thick. The pad away from the well casing.	reli boring and is a	Lickys	EDWELL DRIVERS SANATURE
Well driller's log shall be submitted Environmental Health Services with completion of the well.	to Inyo County hin 30 days of		5-1-16 DAYE
Call for inspect	ions	Site Approved Permit App	Murchay of 8/16/16
inyo County Environmental Health Servi that an acceptable bacteriological samp after the well is completed.		Construction mapacition	hopen 8/3/16

P. O. 80x 427, Independence, CA 93526 (760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

121(132)	WELL PERMIT	APPLICATION	Permit N	<b>o</b>	
TYPE OF WORK (Check)	U	BE .	T	ENT (Check)	
New Well Repair or Modification Destruction	Domestic Irrigation Monitoring	Test Well Municipal Othor	Rotary Cable To Other Hollow St	$\overline{Z}$	
PROPOSED WELL DEPTH	Steel Other PV		D CASING Br <u>2 Inch</u> Wal	l or Gage <u>Sch 40</u>	
PROPOSED SEALING ZO	ONE Foot	SEI Neat Cente Pertland Best. Gr	ALING MATERIAL (  nt	Check) Bentarite Clay Concrete	X 3-4'
PHYSICAL SITE ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08-00		Star	DATE OF WORK 8/22/15 npletion 8/31/15		8-29
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC MAILING ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549		NAME OF WELL D Gregg Drilling and To BUSINESS ADDRE 2726 Walnut Ave. Signal Hill, CA 9075	888: 5	•	
PHONE NUMBER:  (FOR OFFICE USE ONI DISPOSITION OF APPLICA	LY) ATION	PHONE NUMBER: C-57 LICENSE NU 485165	MBER: Cash Bond	Deposit   Posted	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	DENIED	\$151.00 Fee	peld on 8 8 6 F	lecelpt No. <u>5584</u>	99
APPROVED WITH CONI  Minimumft. seal of ann space(minimum 2 inches) is requivilinessed by Inyo County Environ Services.  A concrete pad shall be placed a	iular  lired and must be imental Health  round the well	of Environmental I	omply with all regula lealth Services and y and of the State o pair, modification an of work.	with all ordinance: f California pertaini	ng to
casing that extends at least two for directions from the outside of the minimum of 4 inches thick. The praway from the well casing.  Well driller's log shall be submitted.	Well boding and is a ad must be aloped	V	SEOWELL OFFICE OF	SIGNATURE	-
Environmental Health Services w completion of the well.  Call for in Spec	ithin 30 days of	Manay Mose	DATE	8/16/16	
inyo County Environmental Health Ser that an acceptable bacteriological sam after the well is completed.	vices recommends ipie be obtained	Manual Final Approval	Malaguest Malaguest	\$ 120/15 \$ 9000	6

P. O. Box 427, Independence, CA 93526 (760) 678-0238 • Fax (760) 878-0239

#### **WELL PERMIT APPLICATION**

207 W. Sauth Street, Bishop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

TYPE OF WORK (Check)	U	SE	Permit No.  EQUIPMENT (Check)
New Well Repeir or Modification Destruction	Domestic Irrigation Monitoring	Teet Wall Municipal Other MW 12	Rotary Cable Tool Other Hoflow Stem Anger
PROPOSED WELL DEPTH	Steel Other PV		ED CASING or 2 inch Wall or Gage Sch 40
PROPOSED SEALING ZO	NE Feet	Nagt Camer Por Hand/Bent Gro	nLING MATERIAL (Check) nt Bentonite Clay put 0-3 Concrete
PHYSICAL SITE ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08-00		Start	DATE OF WORK
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC MAILING ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 PHONE NUMBER:		NAME OF WELL OF Gregg Drilling and Tes BUSINESS ADDRES 2726 Walnut Ave. Signal Hill, CA 90755 PHONE NUMBER:	RILLER: sting, Inc.
(FOR OFFICE USE ONL DISPOSITION OF APPLICA	Y) TION	C-57 LICENSE NUM 485165	ABER: Cash Deposit Bond Posted
APPROVED C	DENIED	\$151.00 Fee p	aid on 8 8 16 Receipt No. 558499
Minimumft, seal of single space(minimum 2 inches) is required witnessed by Inyo County Environm Services.  A concrete pad shall be placed are casing that extends at least two feed directions from the outside of the winnimum of 4 inches thick. The page	iler red and must be nental Health  ound the well at laterally in all rell boring and is a	of Environmental He laws of Inyo County well construction, rep of commencement of	mply with all regulations of the Department selfth Services and with all ordinances and and of the State of California pertaining to air, modification and destruction at the time of work.
wey from the well casing.  Well driller's log shall be submitted Environmental Health Services with completion of the well.		8	- 1-16 DATE
Call for inspe	ections_	Massan V Sile Approval Period App	College & State 16
inyo County Environmental Health Servithat an acceptable bacteriological samp after the well is completed.	ces recommends le be obtained	Construction Inspection	Mahamit 9/1/16

P. O. Box 427, Independence, CA 93526 (760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

00) 876-0236 • FEX (700) 876-0239	WELL PERMIT	APPLICATION	Permit No	
TYPE OF WORK (Check)	U	SE	EQUIPMENT (Check)	
New Well Repair or Modification  Destruction	Oomestic Irrigation Monitoring	Test Well Municipal Other MIV-13	Rotery Cable Tool Other Hollow Stem Auger	
PROPOSED WELL DEPTH	Steel Other PV	PROPOSE C Diamete	D CASING or <u>2 tuch</u> Wall or Gage <u>Seligit</u>	1
PROPOSED SEALING ZO	NE Feet	SEA Northand/Bent Gro	ALING MATERIAL (Check)  nt	y 🔯 3
HYBICAL SITE ADDRESS: 1210 S US Highway 395 Dancha, CA 93549 ISSESSOR'S PARCEL NO. 133-470-08-00		Start	DATE OF WORK  8/22/15  pletton 8/31/15	8-2
AME OF WELL OWNER: rystal Geyser Roxane, LLC	and the second s	NAME OF WELL DE Gregg Drilling and Tes	RILLER:	
AAILING ADDRESS: 1210 S US Highway 395 Diancha, CA 93549 PHONE NUMBER:		BUSINESS ADDRES 2726 Walnut Ave. Signal Hill, CA 90755 PHONE NUMBER:		
(FOR OFFICE USE ONL' DISPOSITION OF APPLICA		<b>C-57 LICENSE NUN</b> 485165	ABER: Cash Deposit Bond Posted	
APPROVED D		\$ 151.00 Fee p	ald on 8 8116 Receipt No. 558	499
Minimum ft. seet of annu space(minimum 2 inches) is required with seed by Inyo County Environn Services.  A concrete ped shall be placed are	ter red and must be nental Health ound the well	of Environmental He laws of Inyo County	mply with all regulations of the Depleatith Services and with all ordinance and of the State of California pertails, modification and destruction at the work.	es and ining to
casing that extends at least two fee directions from the outside of the w minimum of 4 inches thick. The peo away from the well casing.	rell boring and is a	(VICENS	ED WE LIDHAL R'S SIGNATURE	
Well driller's log shall be aubmitted Environmental Health Services with completion of the well.	to Inyo County iin 30 days of	8-	OATE	
Call for inspect	lions	Maryay	Marin State State Contract Con	-
nyo County Environmental Health Servi het an acceptable bacteriological semp ifter the well is completed.	ces recommends le be obtained	Masural Manual	hoskum 9/30/1	6

P. O. Box 427, Independence, CA 93526 (760) 876-0238 • Fax (760) 878-0239

**WELL PERMIT APPLICATION** 

207 W. South Street, Blehop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

			Permit No.
TYPE OF WORK (Check)	U	SE .	EQUIPMENT (Check)
New Well Repair or Modification Destruction	Domestic [ Irrigation ] Monitoring [	Municipal	Rotary Cable Tool Other Hollow Stem Anger
PROPOSED WELL DEPTH	Steel Other PV		D CASING or 2 Inch. Wall or Gage Sch 10
PROPOSED SEALING ZO	NE		LING MATERIAL (Check)
From 0 to 8 4	Feet	Pertland/Bento Gro	it [A] Douglating out [7]
PHYSICAL SITE ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08-00			8/22/15 pletton 8/31/15
NAME OF WELL OWNER; Crystal Geyser Roxane, LLC	anna ann ann ann ann ann ann ann ann an	NAME OF WELL DE Gregg Drilling and Tes	RILLER: sting, Inc.
MAILING ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 PHONE NUMBER:		BUSINESS ADDRES 2726 Walnut Ave. Signal Hill, CA 90755 PHONE NUMBER:	
(FOR OFFICE USE ONLY DISPOSITION OF APPLICAT		C-57 LICENSE NUN 485165	MBER: Cash Deposit Bond Posted
APPROVED 0	DENIED	\$151.00 Fee p	ald on 8816 Receipt No.558499
APPROVED WITH CONDI  Minimumft. seel of annul space(minimum 2 inches) is requir withessed by Inyo County Environm Services.	ar ed and must be	of Environmental He lews of inyo County well construction, rep	mply with all regulations of the Department selfin Services and with all ordinances and air, modification and destruction at the time
A concrete pad shall be placed and casing that extends at least two feet directions from the outside of the winnimum of 4 inches thick. The pad away from the well casing.	t laterally in all eli boring and is a	of commencement of	ED WELL ORILLONS SIGNATURE
Well driller's log shall be submitted Environmental Health Services with completion of the well.			T-1-16 DATE
& Callforingpect	ions	Mayna M	cetton Approval , Biglica
inyo County Environmental Health Service that an acceptable bacteriological sample after the well is completed.	peg reco <sub>mmen</sub> ds e be Obtained	Constitution in appealant	Joseph 9/1/16

P. O. B-ox 427, Independence, CA 93526 (760) 878-0238 • Fax (760) 878-0239

#### **WELL PERMIT APPLICATION**

207 W. South Street, Bishop, CA 93514 (760) 873-7866 • Fax (760) 873-3236

			Permit No.					
TYPE OF WORK (Check)	U	SE	EQUIPMENT (Check)					
New Well Repair or Modification Destruction	Domeetic Irrigetion Monitoring	Test Well Municipel Other MW-15	Rotary Cable Tool Other Liollow Stem Auger					
PROPOSED WELL DEPTH	Steel Other PV	PROPOSE Diamete						
PROPOSED SEALING ZO		SEA Neat Carner Portland Bent Gro	LING MATERIAL (Check)  nt - Bentonite Clay X  out X 0-38' Concrete	38-4				
PHYSICAL SITE ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08-00			DATE OF WORK 8/22/15 pletton_8/31/15	(8.26				
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC MAILING ADORESS: 1210 S. US Highway 395 Olancha, CA 93549 PHONE NUMBER:		NAME OF WELL DR Gregg brilling and Tes BUSINESS ADDRES 2726 Wahnut Ave. Signal Hill. CA 90755	sting, Inc.					
(FOR OFFICE USE ONL DISPOSITION OF APPLICA  APPROVED  APPROVED USE ONL APPROVED USE ONL APPROVED WITH COND	TÍON I DENIED	PHONE NUMBER: 5 C-57 LICENSE NUM 485165 \$151.00 Fee pa						
Minimumft. seal of announce space(minimum 2 inches) is required witnessed by Inyo County Environment Services.	red and must be	I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.						
A concrete pad shall be placed and casing that extends at least two fed directions from the outside of the windingum of 4 inches thick. The padaway from the well casing.	it laterally in all fell boring and is a	****	D WELL DRILLET SIGNATURE					
Well driller's log shall be submitted Environmental Health Services with completion of the well.		8-1	OATE					
Call for inspec	B. Principia (Santa Saud Miller of Maria de Contacto e de Principia (Santa Saud Andrea de Santa Saud Andrea de Santa Saud Andrea de Santa Saud Andrea de Santa San	Marya M Sta Approved Ferrit Apple	Markaret 8/2016					
Inyo County Environmental Health Servi that an acceptable bacteriological samp after the well is completed.	ces recommends is be obtained	Continuedon Inspection  AMM Piner Approvei	103 hunt 9/1/16					

# APPENDIX B LITHOLOGIC BORING LOGS AND WELL COMPLETION LOGS



GS FORM: WELL BORE 01/04

**DRILL MTHD** Direct Push

LOGGER K. Agustsson

DIAMETER 2"

#### **BOREHOLE LOG**

**BORING** B-01

START DRILL DATE Aug 24, 16 FINISH DRILL DATE Aug 25, 16

LOCATION Olancha, CA PROJECT CG Roxane Phase 3

NUMBER SB0794 **ELEVATION DATA: GROUND SURF. TOP OF CASING** 

DATUM NAD 1983

SHEET 1 OF 2

									SAM	PLE			
DEPTH ft-bgs)	1) Unit/Formation, I 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, e	tc.) Ö	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
	Well graded SAN (2.5Y 5/3); dry; fi	of road gravel at surface  ND (SW); light olive brown ine to coarse sand; trace fin loose; no odor or staining	94.4 4.4 4.4 9.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6								0.0	1320	Hand Auguer to 5 ft-bg
5 -	Same as above				Soil sample collected at 5 ft-bgs	-	S-1			70	0.0	0710	
10 -					Soil sample collected at 10 ft-bgs	-	S-2			85		0717	
-	olive brown (2.5' coarse sand; (0, staining Well graded SAI (10YR 6/3); mois (0,95,5); loose, r	ND with silt (SW-SM); light Y 5/4); dry to moist; fine to 90, 10); loose; no odor or ND (SW); yellowish brown st; fine to coarse sand; no odor or staining  ); dark yellowish brown (10° e clay; fine to coarse sand	/P			-	-			70		0723	

**COORDINATE SYSTEM:** 

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING** B-01

START DRILL DATE Aug 24, 16

CG Roxane Phase 3

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

FINISH DRILL DATE Aug 25, 16 LOCATION Olancha, CA

NUMBER SB0794

PROJECT

**ELEVATION DATA: GROUND SURF.** 

SHEET 2 OF 2

**TOP OF CASING** DATUM NAD 1983

WEL	L BORE 01/04	BUKER		<u> </u>		IUMBEK	SB0794							
										SAM	PLE			
DEPTH (ft-bgs)	1) Unit/Formation, I 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	STRU(	DWATER OR CTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
	(0,45,55); low to	medium plasticity			Soil sample 15 ft-bgs	collected at		S-3						
-	(7.5YR 5/6); moi	ND (SW); strong brown ist; fine to coarse sand; fine iron oxide stained silt, up to dor or staining			13 II-bys		-				90		0726	
-	brown (10YR 4/6 sand; (0,95,5); n staining	AND (SP); dark yellowish 5); moist; fine to medium nedium dense; no odor or			Soil sample 18 ft-bgs	collected at	-	S-4						
20 -	brown (10YR 4/6 (0,100,0); loose	3); wet; fine to coarse sand;					_							
-			Coloration				-						0731	End Boring at 21 ft-bgs
-							-							
25 -							_							
-	-						-							
-							-							
							-							
30							-							
CONT	RACTOR Greg		ORTHING	<b>;</b>	N	IOTES:								
I EQUIF	PMENT M5T M	ARL E	ASTING											
	MTHD Direct F		OORDINA											

NAD 1983; UTM Zone 11S

REVIEWER K. Coffman

CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

DIAMETER 2"

LOGGER K. Agustsson



GS FORM: WELL BORE 01/04

**DIAMETER** 2"

LOGGER K. Agustsson

#### **BOREHOLE LOG**

**BORING** B-02

START DRILL DATE Aug 23, 16

FINISH DRILL DATE Aug 24, 16 LOCATION Olancha, CA

PROJECT CG Roxane Phase 3 **ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 1 OF 3

NUMBER SB0794 SAMPLE **DESCRIPTION** (mdd) **GRAPHIC LOG ELEVATION (ft)** % WELL LOG (00:00)SAMPLE NO **GROUNDWATER** COMMENTS 1) Unit/Formation, Mem. 7) Plasticity **BLOWS PER** RECOVERY PID READING DEPTH 2) Soil/Rock Name 8) Density/Consistency OR (ft-bgs) 3) Color 9) Structure TIME ( 1) Rig Behavior STRUCTURE 4) Moisture 10) Other (Mineralization, 2) Air Monitoring 5) Grain Size Discoloration, Odor, etc.) 6) Percentage 0930 Well graded SAND (SW) with gravel; light gray (10YR 7/2); dry; fine to coarse sand; fine to coarse gravel; (15,85,0); loose; no ordor or 60 0940 Same as above; except fine gravel and dry-moist 5 0.1 Well graded SAND (SW) with gravel; light 100 0950 yellowish brown (2.5Y 6/3); dry-moist; fine to coarse sand; fine to coarse gravel; (15,80,5); loose; no odor or staining 10 0.1 Same as above; moist; decreasing gravel PHASE 3 INVESTIGATION. GPJ GEOSNTEC. GDT 10/14/16 (5,95,0)100 1000 Same as above: wet Groundwater sampled Hydropunch from 11 to at 12.25 ft-bgs 14 ft-bgs Lean CLAY (CL); light brownish gray (2.5Y, 6/3); wet; (0,0,100); transitioning to very dark gray (2.5Y 3/1); low plasticity **CONTRACTOR** Gregg **NORTHING** NOTES: **EQUIPMENT** M5T MARL **EASTING** DRILL MTHD Direct Push **COORDINATE SYSTEM:** 

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



GS FORM:

LOGGER K. Agustsson

REVIEWER K. Coffman

#### BODEHOI E I OC

**BORING** B-02

START DRILL DATE Aug 23, 16 FINISH DRILL DATE Aug 24, 16

LOCATION Olancha, CA **PROJECT** CG Roxane Phase 3 **ELEVATION DATA:** 

SHEET 2 OF 3

**GROUND SURF. TOP OF CASING** DATUM NAD 1983

	SS FORM: L BORE 01/04	BOREHO	LE LC	)G	NUMBER	SB0794							
DEPTH (ft-bgs)	1) Unit/Formation, M 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	PESCRIPTION  Mem. 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	(2.5Y 3/1): wet: fi	ID (SW); very dark gray ne to coarse sand; (0,95,5); ND (SM) layer at 16 ft-bgs			Groundwater sampled at 15.5 ft-bgs		GW-2			100	0.2	1010	Hydropunch from 15.5 17.5 ft-bgs
-	Sandy SILT (ML) wet; fine sand; (0 soft; no odor or si	; very dark gray (2.5Y 3/1); , 40,60); low plasticity; very taining				-							
20 -	Wet; (0,0,100); v ∖(0,0,100) Sandv SILT (ML)	L); very dark gray (2.5Y 3/1); ery soft; medium plasticity ; very dark gray (2.5Y 3/1); ), 30, 70); rootlets; low				-				100	0.1	1015	
25 -	Silty SAND (SM) 4/1); wet; fine sar soft; medium der	; dark greenish gray (5GY nd; (0, 70, 30); low plasticity; sity			Groundwater sampled at 23 ft-bgs	-	GW-3			100	0.3	1020	
-	dark gray (N 3/); medium dense; to staining	AND with silt (SP-ML); very wet; fine sand; (0, 90, 10); race fine gravel; no odor or			Groundwater sampled at 25.5 ft-bgs		GW-4						hydropunch from 25.5 <sup>-1</sup> 26.5 ft-bgs
<b>EQUIP</b>	SILT (ML); very of sand; (0, 10, 90); or staining  RACTOR Grego MENT M5T MA. MTHD Direct P	ARL EA	DRTHING ASTING DORDINA		NOTES:					100		1025	



GS FORM: WELL BORE 01/04

LOGGER K. Agustsson

REVIEWER K. Coffman

#### **BOREHOLE LOG**

BORING B-02

**START DRILL DATE** Aug 23, 16 **FINISH DRILL DATE** Aug 24, 16

LOCATION Olancha, CA
PROJECT CG Roxane Phase 3

NUMBER SB0794

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

SHEET 3 OF 3

SAMPLE **DESCRIPTION** (mdd) **GRAPHIC LOG** % WELL LOG ELEVATION (00:00)SAMPLE NO **GROUNDWATER COMMENTS** 1) Unit/Formation, Mem. 7) Plasticity **BLOWS PER** RECOVERY PID READING DEPTH 2) Soil/Rock Name 8) Density/Consistency OR (ft-bgs) 3) Color 9) Structure TIME ( 1) Rig Behavior STRUCTURE 4) Moisture 10) Other (Mineralization, 2) Air Monitoring 5) Grain Size Discoloration, Odor, etc.) 6) Percentage SILT (ML); very dark gray (2.5Y 3/1); wet; fine sand (0, 10, 90); low plasticity; soft; no odor or Hydropunch attempted at 31-32 ft-bgs but no water staining encountered 100 1036 Hydropunch attempted at 33-35 ft-bgs but no water encountered 35 SILT (ML) ; very dark gray (2.5Y 3/1); wet; fine sand; trace clay (0, 10, 90); medium to low 0.2 plasticity; no odor or staining 100 1050 40 100 1100 End boring at 40 ft-bgs PHASE 3 INVESTIGATION. GPJ GEOSNTEC. GDT 10/14/16 **CONTRACTOR** Gregg **NORTHING** NOTES: **EQUIPMENT** M5T MARL **EASTING** DRILL MTHD Direct Push **COORDINATE SYSTEM: DIAMETER** 2" NAD 1983; UTM Zone 11S



GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**REVIEWER** K. Coffman

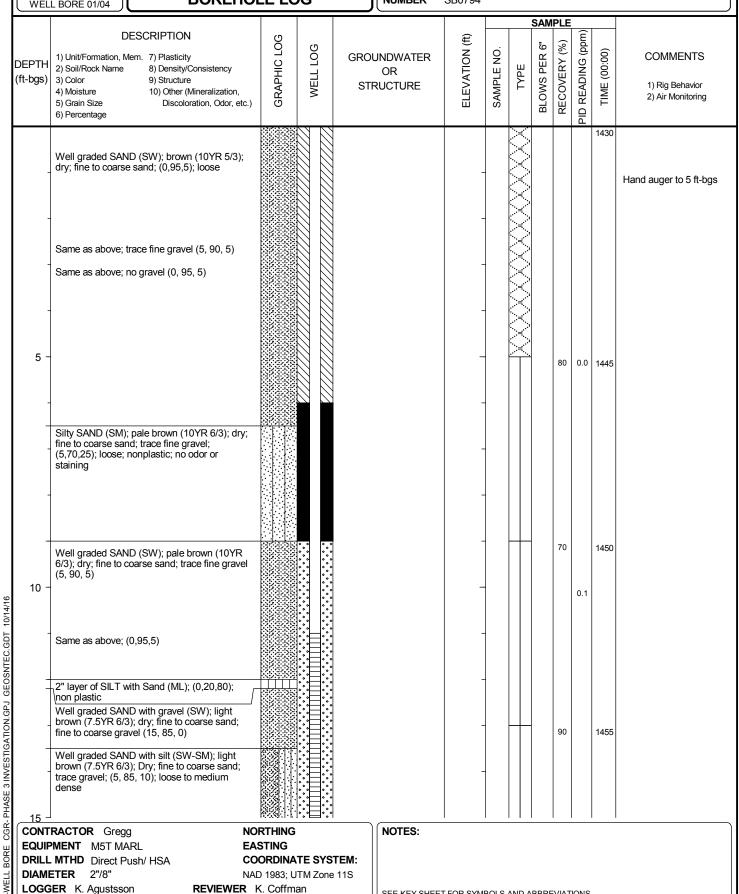
**BORING** MW-10

START DRILL DATE Aug 27, 16 FINISH DRILL DATE Aug 28, 16

LOCATION Olancha, CA PROJECT CG Roxane Phase 3

NUMBER SB0794 SHEET 1 OF 2

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983





GS FORM: WELL BORE 01/04

PHASE 3 INVESTIGATION. GPJ GEOSNTEC. GDT 10/14/16

LOGGER K. Agustsson

**REVIEWER** K. Coffman

#### **BOREHOLE LOG**

BORING MW-10

**START DRILL DATE** Aug 27, 16 **FINISH DRILL DATE** Aug 28, 16

**LOCATION** Olancha, CA **PROJECT** CG Roxane Phase 3

NUMBER SB0794

SHEET 2 OF 2

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

SAMPLE **DESCRIPTION** (mdd) GRAPHIC LOG L0G % ELEVATION (00:00)SAMPLE NO **GROUNDWATER COMMENTS** 1) Unit/Formation, Mem. 7) Plasticity **BLOWS PER** RECOVERY PID READING DEPTH 2) Soil/Rock Name 8) Density/Consistency WELL OR (ft-bgs) 3) Color 9) Structure **STRUCTURE** TIME 1) Rig Behavior 4) Moisture 10) Other (Mineralization. 2) Air Monitoring 5) Grain Size Discoloration, Odor, etc.) 6) Percentage Well graded SAND with gravel (SW); light brown (7.5YR 6/3); dry; fine to coarse sand; fine to coarse gravel; (15, 85, 0) SILT (ML); grayish brown (2.5Y 5/2); wet-moist; fine to medium sand; (0,10,90); no odor or staining Well graded SAND (SW); strong brown 0.0 70 1505 (7.5YR 5/6); wet; fine to coarse sand; (0,100,0); loose 1" SILT (ML) lense at 18.1 ft-bgs; (0,0,100); transitioning to 1" Silty SAND (SM) lense; fine to coarse sand (0,70,30) Well graded SAND (SW); yellowish brown (10YR 5/6); wet; fine to coarse sand; (0,100,0); Íoose 3" SILT (ML); dark grayish brown (2.5Y 4/2); wet; (0,0,100); firm to hard; non plastic; 0.0 Well graded SAND (SW); yellowish brown (10 YR 5/6); wet; fine to coarse sand; (0,100,0); loose SILT (ML); (10YR 4/2); wet; (0,0,100); hard; 95 1530 nonplastic Well graded SAND (SW); light olive brown (2.5Y 5/3); wet; fine to coarse sand; (0,100,0) to (0,95,5) At 21.1 ft-bgs color change to dark yellowish brown (10YR 4/6) increasing fines at 24 ft-bgs (0,95,5) Poorly graded SAND (SP); dark gray (2.5Y 4/1); wet; fine to medium sand; (0,100,0) 25 End boring @ 26 ft-bgs **CONTRACTOR** Gregg **NORTHING** NOTES: **EQUIPMENT** M5T MARL **EASTING COORDINATE SYSTEM:** DRILL MTHD Direct Push/ HSA DIAMETER 2"/8" NAD 1983; UTM Zone 11S



GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING MW-11** 

START DRILL DATE Aug 29, 16

FINISH DRILL DATE Aug 29, 16 LOCATION Olancha, CA **PROJECT** CG Roxane Phase 3

NUMBER SB0794 **ELEVATION DATA: GROUND SURF.** 

SHEET 1 OF 2

**TOP OF CASING** DATUM NAD 1983

	L BORE 01/04								SAM	PLE			
DEPTH ft-bgs)	1) Unit/Formation, I 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage		GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	2/2); moist; fine to low to medium p material; trace cl  Same as above; organic material  1" Gravel Lense Well graded SAI (10YR 5/4); mois (0,100,0); loose	ML); very dark gray (10YR to medium sand; (0,15,85); lasticity; trace organic ay  color change to black; more e (60,40,0) at 2.5 ft-bgs ND (SW); yellowish brown st-wet; fine to coarse sand;				-				70		0755	
5 -	fine to coarse sa  Poorly graded S.	AND (SP); dark gray (N 4/); um sand. (0,100,0); loose				_	_			50	0.0	0601	
	wet; (0,100,0); lo					-	-						
-	4/1); wet; fine to medium plasticit Same as above;	(0,85,15)				-				100		0805	
10 -	4/1); wet; fine to nonplastic	); dark greenish gray (5GY coarse sand; (0,65,35);				_	-				0.1		
-	SILT (ML); dark (0,0,100); firm; ld	greenish gray (5GY 4/1); wet; ow plasticity				-				100		0810	
15 _	RACTOR Greg		RTHING		NOTES:								oring located 5' from

**EQUIPMENT** M5T MARL DRILL MTHD Direct Push / HSA DIAMETER 2"/8"

LOGGER K. Agustsson

**EASTING** COORDINATE SYSTEM:

NAD 1983; UTM Zone 11S

REVIEWER K. Coffman



GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING MW-11** 

START DRILL DATE Aug 29, 16 FINISH DRILL DATE Aug 29, 16

LOCATION Olancha, CA **PROJECT** CG Roxane Phase 3

NUMBER SB0794

SHEET 2 OF 2 **ELEVATION DATA:** 

**GROUND SURF. TOP OF CASING** DATUM NAD 1983

( WEL	L BORE 01/04				<u></u>		050701							
										SAM	PLE	_		
DEPTH (ft-bgs)	DESCRIPTION  1) Unit/Formation, Mem. 7) Plasticity 2) Soil/Rock Name 8) Density/Consiste 3) Color 9) Structure 4) Moisture 10) Other (Mineraliz 5) Grain Size Discoloration, C	ration,	GRAPHIC LOG	WELL LOG		NDWATER OR UCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
20 -											100	0.0	0815	End boring @ 20 ft-bgs
30	RACTOR Gregg	NOI	RTHING			NOTES: I	- Lithology (	obtain	ned fr	om 2	" dire	ect p	ush b	ooring located 5' from
	PMENT M5T MARL		STING			monitoring w	vell location	n			<b></b> '	· P		g

CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

DRILL MTHD Direct Push / HSA DIAMETER 2"/8"

LOGGER K. Agustsson

COORDINATE SYSTEM:

NAD 1983; UTM Zone 11S REVIEWER K. Coffman

### Geosyntec consultants

DRILL MTHD Direct Push / HSA

DIAMETER 2"/8"

LOGGER K. Agustsson

GS FORM:

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800 Fax: (805) 899-8689

**BOREHOLE LOG** 

**BORING** MW-12

START DRILL DATE Aug 25, 16 FINISH DRILL DATE Aug 25, 16 LOCATION Olancha, CA

**PROJECT** CG Roxane Phase 3 NUMBER SB0794

SHEET 1 OF 2 **ELEVATION DATA: GROUND SURF.** 

**TOP OF CASING** DATUM NAD 1983

	L BORE 01/04								CAL				
DEPTH ft-bgs)	1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	Well graded GRAVE brownish gray (10YF sand; fine to coarse (	L with sand (GW); light (6/2); dry; fine to coarse gravel; (65,35,0); loose  SW); light brownish gray to coarse sand; fine				-				75		1435	
5 -	moist; (0,0,100); med odor or staining	ish brown (2.5Y 4/2); dium plasticity; firm; no	000			-				85		1440	
-	(2.5Y 4/2); wet; fine to no odor or staining; I SILT (ML); dark gray moist; (0,0,100); med odor or staining Poorly graded SAND (2.5Y 4/2); wet; fine to	(SP); dark grayish brown o medium sand; (0,95,5); cose ish brown (2.5Y 4/2); dium plasticity; firm; no (SP); dark grayish brown o medium sand; (0,95,5);				-					0.3		
-	moist; (0,0,100); low staining; hard Poorly graded SAND	(SP); dark greenish gray ium sand; (0,100,0); no e lard at 9 ft-bgs	<u>*</u>	<u>   • ; •</u>	Groundwater sampled at 8 ft-bgs	-				95		1450	Hydropunch from 8 to ft-bgs
10 -	SILT (ML); dark gree (0,0,100) Sandy SILT (ML); da 4/1); moist; fine sand nonplastic Poorly graded SAND	rnish gray (GY 4/1); moist; urk greenish gray (GY l; (0,30,70); soft; urk greenish gray				_					0.2		
-	(GY 4/1); wet; fine to	medium sand; (0,100,0)			Groundwater sampled at 11.5 ft-bgs	-				25		1455	Hydropunch from 11.5 12.5 ft-bgs

**COORDINATE SYSTEM:** 

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



DRILL MTHD Direct Push / HSA

DIAMETER 2"/8"

LOGGER K. Agustsson

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GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

BORING MW-12

**START DRILL DATE** Aug 25, 16 **FINISH DRILL DATE** Aug 25, 16

**LOCATION** Olancha, CA **PROJECT** CG Roxane Phase 3

NUMBER SB0794

SHEET 2 OF 2

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

WELL	L BORE 01/04	BOKLIIC				WIDER	360794							
	,	DESCRIPTION								SAM	PLE			
(ft-bgs)	1) Unit/Formation, I 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	DESCRIPTION  Mem. 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDV OR STRUCT		ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
	Sandy SILT (ML sand; (0,30,70); staining	); black (2.5/1); wet; fine nonplastic; firm; no odor or					-			_	90	0.1	1500	
-	SILT (ML); black odor or staining	s (2.5/1); moist; (0,0,100); no					-							
20 -							-	_		-		0.1	1525	End boring @ 20 ft-bg
-							-	_						
25 -							-							
-							-							
	<b>RACTOR</b> Greg <b>MENT</b> M5T M.		ORTHING ASTING		NO' mo	TES: I	Lithology ovell location	obtair	ned fr	rom 2	" dire	ect p	oush b	poring located 5' from

**COORDINATE SYSTEM:** 

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

### Geosyntec consultants

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GS FORM: WELL BORE 01/04

DIAMETER 2"/8"

LOGGER K. Agustsson

#### **BOREHOLE LOG**

BORING MW-13

**START DRILL DATE** Aug 28, 16 **FINISH DRILL DATE** Aug 28, 16

LOCATION Olancha, CA
PROJECT CG Roxane Phase 3

NUMBER SB0794

SHEET 1 OF 2

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

		NEOODIDTICAL							SAME				
DEPTH ft-bgs)	Unit/Formation, M     Soil/Rock Name	DESCRIPTION  Mem. 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	MELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	gray (10YR 7/2);	ID with gravel (SW); light dry; fine to coarse sand; no odor or staining										1105	Hand augered to 4 ft-bo
5 -	(10YR 7/2); dry; ( Well graded SAN gray (10YR 7/2);	ise at 5.5 ft-bgs; light gray (0,0,100); firm ID with gravel (SW); light moist; fine to coarse sand; no odor or staining				-	-			90	0.1	1115	
-	1" Poorly graded ft-bgs; wet; (0, 95 Poorly graded GF yellowish brown ( trace coarse grav (60,40,0) Well graded SAN brown (10YR 3/3 trace gravel; (5,8)	SAND (SP) lense at 6.5 (5,5)  RAVEL with sand (GP); Light (10YR 6/3); wet; fine gravel; rel; fine to coarse sand;  ID with Silt (SW-SM); dark (b); wet; fine to coarse sand; 5,10); loose								90		1120	
10 -	olive brown (2.5Y sand; (0, 50, 50); Silty SAND(SM); wet; fine to very c gravel; (5,75,20); 1" Silt Lense (0,0) Well graded SAN	to sandy SILT (ML); light '5/3); wet; fine to coarse; loose; nonplastic; soft light olive brown (2.5Y 5/3); coarse sand; trace coarse; loose; nonplastic 0,100) at 10t-bgs ID (SW); light olive brown oarse sand and gravel;				-					0.0		
-	trace sand; (0,5,9) firm; hard; no odd Poorly graded SA (GY 4/1); wet; fini- medium sand; tra Silty Sand with G wet; fine to coarsi (15,65,20); firm; i staining	greenish gray (GY 4/1); wet; 95); low to medium plasticity; or or staining; trace clay  AND (SP); dark greenish gray e to medium sand; trace ace fine gravel; (0,100,0) fravel; dark gray (5Y 4/1); e sand; fine to coarse gravel; medium density; no odor or nish gray (GY 6/1); moist;			Groundwater sampled at 12.5 ft-bgs		-			100		1125	Hydropunch from 12.5 13.75 ft-bgs

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING** MW-13

START DRILL DATE Aug 28, 16

FINISH DRILL DATE Aug 28, 16 LOCATION Olancha, CA

**PROJECT** CG Roxane Phase 3 NUMBER SB0794

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 2 OF 2

WEL	L BORE 01/04			 	000701							
								SAM	PLE			
DEPTH (ft-bgs)	DESCRIPTION  1) Unit/Formation, Mem. 7) Plasticity 2) Soil/Rock Name 8) Density/Consistency 3) Color 9) Structure 4) Moisture 10) Other (Mineralization Discoloration, Odor, 6) Percentage	GRAPHIC LOG	WELL LOG	NDWATER OR UCTURE	ELEVATION (ff)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
	SILT (ML); dark greenish gray (GY 4/1); m trace clay; (0,0,100); firm to hard; non-plas to low plasticity No Recovery	oist; ic			-					0.1	1130	No recovery from 16 to 20 ft-bgs
20					-							Fad basing @ 20 ft bas
					-							End boring @ 20 ft-bgs
25					-							
					-							
30					-							
CONT	TRACTOR Gregg PMENT M5T MARL	NORTHING EASTING	3	NOTES: L monitoring w	ithology o	obtair on	ed fr	om 2	" dire	ect p	ush b	poring located 5' from

CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

DRILL MTHD Direct Push / HSA DIAMETER 2"/8" LOGGER K. Agustsson

COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

REVIEWER K. Coffman

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GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING** MW-14

START DRILL DATE Aug 30, 16

FINISH DRILL DATE Aug 30, 16 LOCATION Olancha, CA

PROJECT CG Roxane Phase 3

NUMBER SB0794

SHEET 1 OF 2 **ELEVATION DATA: GROUND SURF.** 

**TOP OF CASING** DATUM NAD 1983

WEL	L BORE 01/04	BOKEHO	NUMBER	SB0794									
	_								SAM	PLE			
DEPTH (ft-bgs)	1) Unit/Formation, N 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)		COMMENTS  1) Rig Behavior 2) Air Monitoring
-	Well graded SAN brownish gray (1 sand; fine to coal	ND with gravel (SW); light OYR 6/2); dry; fine to coarse rse gravel; (30,70,0); loose				-				35		0755	
- 5 - -	at 4 ft-bgs Dry to	moist				-				30		0800	
-	at 8 ft-bgs trace \$	SILT (25,70,<5)				-				70		0805	
10 -	Well graded SAN (10YR 5/4); dry t grained sand; fin loose	ND (SW); yellowish brown o moist; fine to coarse ue to coarse gravel; (10,90,0);				-				80		0807	
			RTHING STING		NOTES: monitoring v	Lithology (vell location	bbtain	ed fr	rom 2	" dire	ect p	ush b	poring located 5' from
	. MTHD Direct P	Push / HSA CO	ORDINA	TE SYS	гем:								

NAD 1983; UTM Zone 11S

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

REVIEWER K. Coffman

CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

DIAMETER 2"/8"

LOGGER K. Agustsson



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GS FORM: WELL BORE 01/04

#### **BOREHOLE LOG**

**BORING** MW-14

START DRILL DATE Aug 30, 16

FINISH DRILL DATE Aug 30, 16 LOCATION Olancha, CA

**PROJECT** CG Roxane Phase 3

NUMBER SB0794 **ELEVATION DATA: GROUND SURF.** 

SHEET 2 OF 2

**TOP OF CASING** DATUM NAD 1983

WEL	WELL BORE 01/04 BORLI IOLL LOG													
								SAM	PLE					
DEPTH (ft-bgs)	1) Unit/Formation, M 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	PESCRIPTION  Idem. 7) Plasticity 8) Density/Consistenc 9) Structure 10) Other (Mineralizat Discoloration, Odo	on,	WELL LOG		INDWATER OR PUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
20 -	brown (10YR 3/3 sand; transitions loose Silty SAND (SM) wet; fine to mediu	ID with silt (SW-SM); da ); wet to moist; fine to co to fine gravel; (5,85,10); ; very dark gray (10YR 3 Im sand; (0,60,50); firm LT (ML); dark greenish one sand; trace clay; (0,0 plasticity	/1);		Groundw	ater sample at 18.5 ft-bgs	-	GW-1			100		0815	hydropunch from 18.5 to 19.5 ft-bgs End boring @ 20 ft-bgs
25 -							-							
CONT	RACTOR Grege PMENT M5T MA . MTHD Direct P	ARL	NORTHI EASTIN COORD		STEM:	NOTES: monitoring v	Lithology ovell location	obtain on	ed fr	om 2	" dire	ect p	ush b	poring located 5' from

CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

DRILL MTHD Direct Push / HSA

DIAMETER 2"/8" LOGGER K. Agustsson COORDINATE SYSTEM:

NAD 1983; UTM Zone 11S

REVIEWER K. Coffman



924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800 Fax: (805) 899-8689

GS FORM: WELL BORE 01/04

LOGGER K. Agustsson

REVIEWER K. Coffman

#### **BOREHOLE LOG**

BORING MW-15

**START DRILL DATE** Aug 24, 16 **FINISH DRILL DATE** Aug 25, 16

**LOCATION** Olancha, CA **PROJECT** CG Roxane Phase 3

NUMBER SB0794

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

SHEET 1 OF 4

									SAME	PLE			
DEPTH ft-bgs)	1) Unit/Formation, N 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	8) Density/Consistency 9) Structure 10) Other (Mineralization Discoloration, Odor, 6)		WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	brown gray (2.5)	ND (SW) with gravel; light (6/2); dry; fine to coarse rse gravel; (15,85,0); loose ng				-						1015	Hand auger to 4 ft-bgs
5 -						-				75	0.0	1020	
-	(25,75,0) 1" silty SAND (S	easing coarse gravel  M) lense at 7.5 ft-bgs; very 3/1); dry; fine to coarse san um dense	d;			-				70		1025	
10 -	Same as above;	Moist				-					0.1		Hydropunch attempte
-	(0,100,0); color o 5/2) SILT (ML); black	except wet; gravel decrease change to grayish brown (2 (2.5Y 2.5/1); wet; fine to 20,80); low plasticity; soft				-				90		1030	fróm 10.5 to 11.5 ft-bg no water encountered
-	(2.5Y 2.5/1); fine loose SILT (ML); black	ND with silt (SW-SM); black to coarse sand (0,90,10); (2.5Y 2.5/1); wet; fine to 0,100); low plasticity; soft				-							Hydropunch attempter from 12.5 to 13 ft-bgs; water encountered
15	wet; fine to coars odor or staining	ND (SW); dark gray (5Y 3/1 se sand; (0,100,0); loose; n	0		Groundwater sampled at 14 ft-bgs								hydropunch from 14 to 15.5 ft-bgs
<b>EQUIP</b>	RACTOR Greg PMENT M5T M/ MTHD Direct F	ARL	NORTHING EASTING COORDINA		NOTES:								



GS FORM:

WELL BORE 01/04

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800 Fax: (805) 899-8689

**BOREHOLE LOG** 

**BORING** MW-15 START DRILL DATE Aug 24, 16 FINISH DRILL DATE Aug 25, 16 LOCATION Olancha, CA

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 2 OF 4

**PROJECT** CG Roxane Phase 3 **NUMBER** SB0794

								SAM	PLE			
DEPTH (ft-bgs)	DESCRIPTION  1) Unit/Formation, Mem. 7) Plasticity 2) Soil/Rock Name 8) Density/Consistency 3) Color 9) Structure 4) Moisture 10) Other (Mineralization, Discoloration, Odor, etc.) 6) Percentage	RAPHIC WELL I		GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	SILT (ML); dark greenish gray (5G 4/1); moist; trace fine sand; (0,5,95); soft; no odor or staining; roots present				-				90	0.0	1035	Marshy odor
20 -	SILT (ML) with sand; same as above; fine sand; (0,20,80)  SILT (ML); dark greenish gray (5G 4/1); moist; trace fine sand; (0,5,95); firm; no odor or staining;				-				90	0.1	1045	Marshy odor
25 -	Silty SAND (SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,60,40); loose; no odor or staining  SAND with silt to silty SAND (SP-SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,90,10); loose; no odor or staining  Poorly graded SAND with silt (SP-SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,90,10); loose; no odor or staining  SILT (ML); very dark gray (5Y 3/1); wet; fine			Groundwater sampled at 24 ft-bgs	-				80	0.6	1100	hydropunch from 24 to ft-bgs
EQUIP DRILL	sand; (0,10,90); low plasticity; no odor or staining  RACTOR Gregg NO PMENT M5T MARL EA  MTHD Direct Push / HSA CO		ATE SYST		-				100		110	



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GS FORM:

LOGGER K. Agustsson

REVIEWER K. Coffman

**BORING** MW-15

START DRILL DATE Aug 24, 16 FINISH DRILL DATE Aug 25, 16

LOCATION Olancha, CA **PROJECT** CG Roxane Phase 3

SHEET 3 OF 4 **ELEVATION DATA:** 

**GROUND SURF. TOP OF CASING** DATUM NAD 1983

			1						CAN				
DEPTH ft-bgs)	1) Unit/Formation, M 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage	PESCRIPTION  flem. 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"   WAS	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS  1) Rig Behavior 2) Air Monitoring
-	SILT (ML); very of sand; (0,10,90); l staining	dark gray (5Y 3/1); wet; fine ow plasticity; no odor or				-				100	0.2	1130	
35 -	sand: trace clav: 1	dark gray (5Y 3/1); wet; fine trace sand; (0,10,90); low to v; no odor or staining; firm				-				75	0.1	1320	
-	wet; (0,40,60)	SILT(ML) at 37.25 ft-bgs; SILT (ML) at 38.5 ft-bgs; wet;				-							
40 -	1" layer with anail	Ulika shalla procent at 41				_				95	0.1	1330	
- - 45 -	1" layer of poorly ft-bgs; very dark ( medium sand; (0 Well graded SAN 3/1); wet; fine to c	graded SAND (SP) at 42.5 gray (5Y 3/1); wet; fine to ,95,5); loose; shells present \( \int \) (D (SW); very dark gray (5Y ) coarse sand; (0,100,0); loose; g; shells present; saturated				-				100		1350	



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GS FORM: WELL BORE 01/04

LOGGER K. Agustsson

**REVIEWER** K. Coffman

#### **BOREHOLE LOG**

BORING MW-15

**START DRILL DATE** Aug 24, 16 **FINISH DRILL DATE** Aug 25, 16

CG Roxane Phase 3

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

LOCATION Olancha, CA

NUMBER SB0794

PROJECT

ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

SHEET 4 OF 4

SAMPLE DESCRIPTION PID READING (ppm) **GRAPHIC LOG ELEVATION (ft)** % **BLOWS PER 6"** WELL LOG SAMPLE NO. TIME (00:00) **GROUNDWATER COMMENTS** 1) Unit/Formation, Mem. 7) Plasticity RECOVERY DEPTH 2) Soil/Rock Name 8) Density/Consistency OR (ft-bgs) 9) Structure 3) Color 1) Rig Behavior STRUCTURE 10) Other (Mineralization, 4) Moisture 2) Air Monitoring 5) Grain Size Discoloration, Odor, etc.) 6) Percentage SILT (ML); very dark gray (5Y 3/1); wet; soft; fine sand; (0,5,95); no odor or staining 100 1400 End boring @ 49 ft-bgs 50 55 PHASE 3 INVESTIGATION. GPJ GEOSNTEC. GDT 10/14/16 **CONTRACTOR** Gregg **NORTHING** NOTES: **EQUIPMENT** M5T MARL **EASTING** DRILL MTHD Direct Push / HSA **COORDINATE SYSTEM:** DIAMETER 2"/8" NAD 1983; UTM Zone 11S

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800 Fax: (805) 899-8689

START DRILL DATE Aug 27, 16 FINISH DRILL DATE Aug 28, 16 LOCATION Olancha, CA PROJECT CG Roxane Phase 3

**BORING** 

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 1 OF

MW-10

GS FORM:

WELL CONSTRUCTION LOG

NUMBER SB0794 WELL COMP AG 01/04 SURFACE COMPLETION: GRAPHIC LOG **COMMENTS TYPE** Raised Well Box LOCKING COVER WELL RISER HEIGHT DEPTH 1) Groundwater MATERIAL (ft-bgs) 2) Surge Time DEPTH RISER DIAM. PROTECTIVE RISER 3) Dedicated Pump (FT-BGS) WELL CASING HEIGHT 3' CASING HEIGHT CONCRETE PAD SIZE 4'X4'X4" **BORING DEPTH** 26' PILOT BORING DIAMETER 2" REAM BORING DIAMETER WELL CONSTRUCTION WELL CONSTRUCTION DATE 8-28-2016 WELL DEPTH 26' WELL CASING DIAMETER WELL CASING MATERIAL Schedule 40 PVC SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN 11' BOTTOM OF SCREEN END CAP/SUMP LENGTH 9.0 **GROUT** 10 TOP DEPTH 11.0 TYPE/BRAND Portland Cement/bentonite mix **QUANTITY USED** 150 lbs VOLUME FLUID USED 15 gal PLACEMENT METHOD **Tremie** BENTONITE SEAL TOP DEPTH TYPE/BRAND **Bentonite Chips** QUANTITY USED 50 lbs **VOLUME FLUID USED** <u>5 gal</u> SET-UP TIME 30 min PLACEMENT METHOD downhole pour TRANSITION SAND 20 TOP DEPTH TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA SAND/GRAVEL PACK TOP DEPTH 2/12 CeMEX brand TYPE/BRAND QUANTITY USED 550 lbs PLACEMENT METHOD downhole pour **BOTTOM FILL** TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD **NORTHING** 

CONTRACTOR Gregg **EQUIPMENT** M5T MARL DRILL MTHD Direct Push/ HSA DIAMETER 2"/8"

LOGGER K. Agustsson

GEOSNTEC.GDT

**EASTING COORDINATE SYSTEM:** NAD 1983; UTM Zone 11S

**REVIEWER** K. Coffman

**DEDICATED PUMP SYSTEM:** 

TYPE/BRAND: NA MODEL: NΑ CONTROLLER TYPE: NA

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800

Fax: (805) 899-8689

START DRILL DATE Aug 29, 16 FINISH DRILL DATE Aug 29, 16 **LOCATION** Olancha, CA PROJECT CG Roxane Phase 3

SB0794

MW-11

**BORING** 

NUMBER

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 1 OF

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

SURFACE COMPLETION: GRAPHIC LOG **COMMENTS TYPE** Raised Well box LOCKING COVER WELL RISER HEIGHT DEPTH 1) Groundwater MATERIAL (ft-bgs) 2) Surge Time DEPTH RISER DIAM. PROTECTIVE RISER 3) Dedicated Pump (FT-BGS) WELL CASING HEIGHT 3' CASING HEIGHT CONCRETE PAD SIZE 4'X4'X4" **BORING DEPTH** 20' PILOT BORING DIAMETER REAM BORING DIAMETER WELL CONSTRUCTION 3.0 WELL CONSTRUCTION DATE 8-29-2016 WELL DEPTH <u>11'</u> 5.0 WELL CASING DIAMETER Lithology obtained from 2" direct push boring located 5' from monitoring well location WELL CASING MATERIAL Schedule 40 PVC SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN BOTTOM OF SCREEN <u>11'</u> END CAP/SUMP LENGTH **GROUT** 10 TOP DEPTH TYPE/BRAND Portland Cement/bentonite mix **QUANTITY USED** 110 lbs **VOLUME FLUID USED** <u>8 gal</u> PLACEMENT METHOD Tremie **BENTONITE SEAL** TOP DEPTH TYPE/BRAND **Bentonite Chips** QUANTITY USED 100 lbs **VOLUME FLUID USED** 5 gal SET-UP TIME PLACEMENT METHOD downhole pour TRANSITION SAND 20 TOP DEPTH TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA SAND/GRAVEL PACK TOP DEPTH 2/12 CeMEX brand TYPE/BRAND QUANTITY USED 250 lbs PLACEMENT METHOD downhole pour **BOTTOM FILL** TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD

**CONTRACTOR** Gregg **EQUIPMENT** M5T MARL DRILL MTHD Direct Push / HSA **DIAMETER** 8"

PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT

LOGGER K. Agustsson **REVIEWER** K. Coffman

**NORTHING FASTING** 

**COORDINATE SYSTEM:** NAD 1983; UTM Zone 11S

DEDICATED PUMP SYSTEM:

TYPE/BRAND: NA MODEL: NΑ CONTROLLER TYPE: NA

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800

Fax: (805) 899-8689

**BORING** MW-12 START DRILL DATE Aug 25, 16 FINISH DRILL DATE Aug 25, 16 **LOCATION** Olancha, CA

CG Roxane Phase 3

PROJECT

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 1 OF

GS FORM:

WELL CONSTRUCTION LOG

NUMBER SB0794 WELL COMP AG 01/04 SURFACE COMPLETION: GRAPHIC LOG **COMMENTS TYPE** Raised Well box LOCKING COVER WELL RISER HEIGHT DEPTH 1) Groundwater MATERIAL (ft-bgs) 2) Surge Time DEPTH RISER DIAM. PROTECTIVE RISER 3) Dedicated Pump (FT-BGS) WELL CASING HEIGHT 3' CASING HEIGHT CONCRETE PAD SIZE 4'X4'X4" **BORING DEPTH** 20' PILOT BORING DIAMETER REAM BORING DIAMETER WELL CONSTRUCTION 3.0 WELL CONSTRUCTION DATE 8-25-2016 WELL DEPTH 7.5' 5.0 WELL CASING DIAMETER Lithology obtained from 2" direct push boring located 5' from monitoring well location WELL CASING MATERIAL Schedule 40 PVC SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN BOTTOM OF SCREEN 7.5' END CAP/SUMP LENGTH **GROUT** 10 TOP DEPTH TYPE/BRAND Portland Cement/bentonite mix **QUANTITY USED** 75 lbs **VOLUME FLUID USED** 8 gal PLACEMENT METHOD Tremie **BENTONITE SEAL** TOP DEPTH TYPE/BRAND **Bentonite Chips** QUANTITY USED 50 lbs **VOLUME FLUID USED** <u>5 gal</u> SET-UP TIME PLACEMENT METHOD downhole pour TRANSITION SAND 20 TOP DEPTH TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA SAND/GRAVEL PACK TOP DEPTH 2/12 CeMEX brand TYPE/BRAND QUANTITY USED 250 lbs PLACEMENT METHOD downhole pour **BOTTOM FILL** TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD **NORTHING** 

**CONTRACTOR** Gregg **EQUIPMENT** M5T MARL DRILL MTHD Direct Push / HSA

PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT

**COORDINATE SYSTEM: DIAMETER** 8" NAD 1983; UTM Zone 11S LOGGER K. Agustsson **REVIEWER** K. Coffman

**FASTING** 

DEDICATED PUMP SYSTEM:

TYPE/BRAND: NA MODEL: NΑ CONTROLLER TYPE: NA

DRILL MTHD Direct Push / HSA

**DIAMETER** 8"

LOGGER K. Agustsson

GS FORM:

924 Anacapa St Suite 4A Santa Barbara, CA 93101 Tel: (805) 897-3800

Fax: (805) 899-8689 WELL CONSTRUCTION LOG **BORING MW-13** 

START DRILL DATE Aug 28, 16 FINISH DRILL DATE Aug 28, 16

LOCATION Olancha, CA PROJECT CG Roxane Phase 3

NUMBER SB0794 SHEET 1 OF 1

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

WEL	L COMP AG 01/04 VVELL CON	ISTRUCTION LOG	NUMBER SB0794
DEPTH (ft-bgs)		WELL MATERIAL DEPTH (FT-BGS)	SURFACE COMPLETION:  TYPE Raised Well box  PROTECTIVE RISER CASING HEIGHT RISER  WELL CASING HEIGHT 3'  CONCRETE PAD SIZE 4'X4'X4"
2 CGK PHASE 3 INVESTIGATION GPJ GEOSNIEC GDI 10/14/18	Lithology obtained from 2" direct push boring located 5' from monitoring well location	3.0 4.0 5.0 11.5	BORING DEPTH 20' PILOT BORING DIAMETER REAM BORING DIAMETER WELL CONSTRUCTION DATE 8-28-2016 WELL DEPTH 11.5' WELL CASING DIAMETER 2" WELL CASING DIAMETER 2" WELL CASING MATERIAL Schedule 40 PVC SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN 5' BOTTOM OF SCREEN 11.5' END CAP/SUMP LENGTH 2"  GROUT  TOP DEPTH 0' TYPE/BRAND Portland Cement/bentonite mix QUANTITY USED 75 lbs VOLUME FLUID USED 9 gal PLACEMENT METHOD Tremie  BENTONITE SEAL  TOP DEPTH 3' TYPE/BRAND Bentonite Chips QUANTITY USED 25 lbs VOLUME FLUID USED 2.5 gal SET-UP TIME 30 min PLACEMENT METHOD downhole pour  TRANSITION SAND  TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA  SAND/GRAVEL PACK  TOP DEPTH 4' TYPE/BRAND 2/12 CAMEX brand QUANTITY USED 350 lbs PLACEMENT METHOD downhole pour  BOTTOM FILL  TOP DEPTH NA TYPE/BRAND NA QUANTITY USED 350 lbs PLACEMENT METHOD MA PLACEMENT METHOD NA  ROTTOM FILL  TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA PLACEMENT METHOD NA  ROTTOM FILL  TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA
	TRACTOR Gregg IPMENT M5T MARL	NORTHING EASTING	DEDICATED PUMP SYSTEM:   TYPE/BRAND: NA

CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

MODEL:

COORDINATE SYSTEM:

NAD 1983; UTM Zone 11S

REVIEWER K. Coffman

NA

NA

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Fax: (805) 899-8689

**BORING** 

START DRILL DATE Aug 30, 16 **ELEVATION DATA:** FINISH DRILL DATE Aug 30, 16 **GROUND SURF. TOP OF CASING LOCATION** Olancha, CA DATUM NAD 1983 PROJECT CG Roxane Phase 3 NUMBER SB0794

SHEET 1 OF

MW-14

GS FORM: WELL CONSTRUCTION LOG WELL COMP AG 01/04

SURFACE COMPLETION: GRAPHIC LOG **COMMENTS TYPE** Raised Well box LOCKING COVER WELL RISER HEIGHT 4' DEPTH 1) Groundwater MATERIAL (ft-bgs) 2) Surge Time DEPTH RISER DIAM. PROTECTIVE RISER 3) Dedicated Pump (FT-BGS) WELL CASING HEIGHT 3' CASING HEIGHT CONCRETE PAD SIZE 4'X4'X4" **BORING DEPTH** 20' PILOT BORING DIAMETER REAM BORING DIAMETER WELL CONSTRUCTION 3.5 WELL CONSTRUCTION DATE 8-30-2016 WELL DEPTH 15.5' WELL CASING DIAMETER 5.5 WELL CASING MATERIAL Schedule 40 PVC SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN 7.5' Lithology obtained from 2" direct push boring located 5' from monitoring well location BOTTOM OF SCREEN 15.5' END CAP/SUMP LENGTH **GROUT** 10 TOP DEPTH TYPE/BRAND Portland Cement/bentonite mix **QUANTITY USED** 75 lbs **VOLUME FLUID USED** 9 gal PLACEMENT METHOD <u>Tremie</u> **BENTONITE SEAL** TOP DEPTH 3.5' TYPE/BRAND Bentonite Chips QUANTITY USED 50 lbs **VOLUME FLUID USED** 2.5 gal SET-UP TIME 30 min PLACEMENT METHOD downhole pour TRANSITION SAND 20 TOP DEPTH TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD NA SAND/GRAVEL PACK TOP DEPTH 5.5' 2/12 CeMEX brand TYPE/BRAND QUANTITY USED 350 lbs PLACEMENT METHOD downhole pour **BOTTOM FILL** TOP DEPTH NA TYPE/BRAND NA QUANTITY USED NA PLACEMENT METHOD DEDICATED PUMP SYSTEM: **CONTRACTOR** Gregg **NORTHING** 

**EQUIPMENT** M5T MARL DRILL MTHD Direct Push / HSA **DIAMETER** 8"

LOGGER K. Agustsson

PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT

**FASTING COORDINATE SYSTEM:** NAD 1983; UTM Zone 11S

**REVIEWER** K. Coffman

TYPE/BRAND: NA MODEL: NΑ CONTROLLER TYPE: NA

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Fax: (805) 899-8689

**BORING** MW-15 START DRILL DATE Aug 24, 16 FINISH DRILL DATE Aug 25, 16 LOCATION Olancha, CA PROJECT CG Roxane Phase 3

SB0794

NUMBER

**ELEVATION DATA: GROUND SURF. TOP OF CASING** DATUM NAD 1983

SHEET 1 OF

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

SURFACE COMPLETION: GRAPHIC LOG **COMMENTS TYPE** Raised Well box LOCKING COVER WELL RISER HEIGHT DEPTH 1) Groundwater MATERIAL (ft-bgs) 2) Surge Time DEPTH RISER DIAM. PROTECTIVE RISER 3) Dedicated Pump (FT-BGS) WELL CASING HEIGHT 3' CASING HEIGHT CONCRETE PAD SIZE 4'X4'X4" **BORING DEPTH** 49' PILOT BORING DIAMETER 2" REAM BORING DIAMETER WELL CONSTRUCTION WELL CONSTRUCTION DATE 8-25-2016 WELL DEPTH 48' WELL CASING DIAMETER WELL CASING MATERIAL Schedule 40 PVC 10 SCREEN SLOT SIZE/DIRECTION 0.01" slotted TOP OF SCREEN BOTTOM OF SCREEN END CAP/SUMP LENGTH **GROUT** TOP DEPTH TYPE/BRAND Portland Cement/bentonite mix **QUANTITY USED** 700lbs 20 **VOLUME FLUID USED** 25 gal PLACEMENT METHOD Tremie **BENTONITE SEAL** TOP DEPTH 36.5 TYPE/BRAND Bentonite Pellets TR30 QUANTITY USED 50 lbs **VOLUME FLUID USED** below water table SET-UP TIME 30 min 30 PLACEMENT METHOD downhole pour TRANSITION SAND TOP DEPTH TYPE/BRAND NA QUANTITY USED NA 36.5 PLACEMENT METHOD NA SAND/GRAVEL PACK TOP DEPTH 40 41.0 2/12 CeMEX brand TYPE/BRAND QUANTITY USED 250 lbs 43.0 PLACEMENT METHOD downhole pour **BOTTOM FILL** TOP DEPTH NA TYPE/BRAND NA 48.0 QUANTITY USED NA PLACEMENT METHOD **CONTRACTOR** Gregg **NORTHING DEDICATED PUMP SYSTEM:** 

**EQUIPMENT** M5T MARL DRILL MTHD Direct Push / HSA DIAMETER 2"/8"

LOGGER K. Agustsson

**FASTING COORDINATE SYSTEM:** NAD 1983; UTM Zone 11S

**REVIEWER** K. Coffman

TYPE/BRAND: NA MODEL: NΑ CONTROLLER TYPE: NA

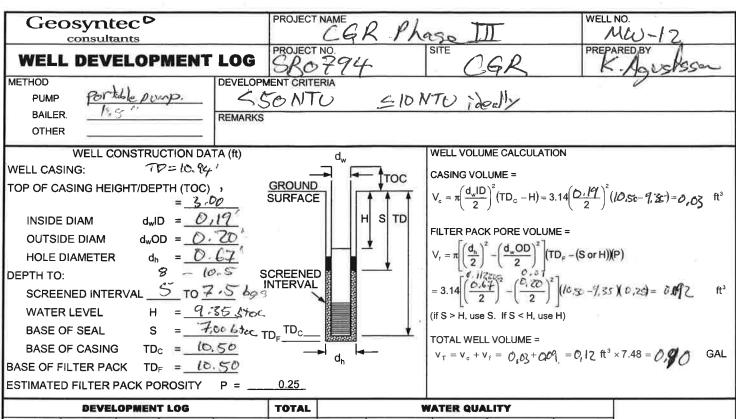
# APPENDIX C WELL DEVELOPMENT LOGS

Ge	osynt				PROJECT	IGR .	- Phase	III		WELL	NO.  ARED BY			
WEL			MENT	LOG	PROJECT	NO.	-	SITE	ha					
METHOD			(10000000000000000000000000000000000000	DEVELOR	 MENT CRITE	RIA					Conin			
PUMP				4	50 11	T/ \	71-1	1	< 10 A	TO				
BAILE	R =			REMARKS	10	(0	ب د ددر	4		. • •				
OTHE	R		- n - 8											
		ONSTRU	JCTION DA	ΓA (ft)		d <sub>w</sub>		WELL VOLU	ME CALCULATION	NC				
WELL CAS					GROUND	7 F	Ттос	CASING VOL						
TOP OF C	ASING HEI	GHT/DEI	PTH (TOC)		SURFACE	חוור	<del>*</del> * *	$V_c = \pi \left( \frac{d_w ID}{2} \right)$	$(TD_c - H) = 3$	.14 ()2	_ )= ft <sup>3</sup>			
INSIDE	E DIAM	dl	D =			.      <sub>F</sub>	STD	( 2	)	(2)				
			DD =						K PORE VOLUM					
							<b>*</b>	$V_f = \pi \left( \frac{d_h}{2} \right)^2$	$-\left(\frac{d_wOD}{2}\right)^2$	D <sub>F</sub> - (S or H))	(P)			
DEPTH TO		-,		S	CREENE	) § §		Ē						
SCREENED INTERVALTO = $3.14 \left[ \left( -\frac{1}{2} \right)^2 - \left( -\frac{1}{2} \right)^2 \right]$										( -	)( )= ft			
WATER LEVEL  BASE OF SEAL  BASE OF CASING  TD <sub>F</sub> TD <sub>F</sub> TD <sub>C</sub> T									(if S > H, use S. If S < H, use H)					
BASE	OF SEAL	S	= 9		D <sub>E</sub> TD <sub>C</sub>	- 📗 -		TOTAL MELI	VOLUME	,				
BASE	OF CASING	3 TD	)c =			<b>→</b>		TOTAL WELL $V_T = V_C + V_C$	_ VOLUME = ', = +	≡ ft³	×7.48 = 70.88 GA			
BASE OF	FILTER PA	CK TD	$p_F = \underline{\lambda 6}$			u <sub>h</sub>		-1 -6 -			6			
ESTIMATE	D FILTER	PACK PO	DROSITY	P =	0.25			Cusing ~ 3	د,					
	DEVE	LOPMEN	T LOG		TOTAL			VATER QUA						
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	рН	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS			
8-30-K	1546	(gpm)	21,05	(gai)	(yai)		(Ingun)	-			TOC. 30.19 Bey			
	1550			1.5.	1.5						end Bernil			
	1552										Strt Surge			
	1600	·								_	on 1 Sugp /ste			
	1607	_	21.24	1,5	3.0						Carl Bail			
	1612		23,52	1,13	٥.د			1			· · · · · · · · · · · · · · · · · · ·			
	16.14	2	23.52	4	7 .						Durp on			
		2	23.98		7.0	7111	f2 12	71000	2160	189	6 30 mg			
	1616	_			11	7.45	0.130	+	71.98		Motes Dima			
	1677	7	24.18		23	7.44	0.113	725	17.82	167	movee pump 5			
	853	2	24.29	12	3.5	7 -		97.7-1	100	্রেপ্	Viscol Cloudy.			
	1634	2	24.31		47		0.111	75.6						
	1693	2	24.30		65	1.14	0.111	49.8	18.32	74				
	1654	?	24.30		87	1.10	0.110	20,4	18.21	67				
c1 -	1704	7	2430		100	+,06	0.111	20.9	1ア・イチ	48				
g.30. R.	1/12	2	2430	1<				40,1	~		end day			
							0							
	-													

Geo	osynt				PROJECT NAME  WELL NO.  MW-11  PROJECT NO.  SITE  PREPARED BY						
10/2° II II				100	PROJECT	NO.				PRE	PARED BY
25/37/25/25/21/2	_ DEVI	ELOP	MENT	1000000				dancl	19.	1	1. Cronin.
METHOD				DEVELOPM							1
PUMP BAILER	4,	3/4 1	55.	CNY	50	NTO	) = =	- 10 N	TU pre	+tene	4.
OTHER		7-3		REMARKS					•		
	WELLCO	ONSTRU	CTION DA	ΓΔ (ft)		al		WELL VOLU	ME CALCULATION	ON	
WELL CAS			OTION DA	174 (11)	_	_ d	_	CASING VOL		•••	ŀ
TOP OF CA	ASING HEI	GHT/DEF	TH (TOC)		GROUND		Ттос			( )	2
			=		SURFACE		1 1	$V_{o} = \pi \left( \frac{-w^{2}}{2} \right)$	$\int (TD_c - H) = 3$	1.14 <u>2</u>	2 ( = )= ft <sup>3</sup>
INSIDE	DIAM	d <sub>w</sub> ll	o =			l l	S TD	EILTED DAG	K PORE VOLUM	AC _	
OUTSI	DE DIAM	d <sub>w</sub> O	D =				<u> </u>		_		N/
HOLE DIAMETER $d_h = \frac{1}{2} - \left(\frac{d_w O}{2}\right)^2 - \left(\frac{d_w O}{2}\right$										D <sub>F</sub> – (S or H	I))(P)
DEPTH TO	-			1	CREENEI NTERVAL		4	_		=	1
	NED INTE				,	×	5	= 3.14	$ \Big)^2 - \Big( \Big)^2$	_	)( )= ft <sup>3</sup>
WATER	RLEVEL	Н	-	т	70			(if S > H, use	S. If S < H, use	H)	
BASE	OF SEAL	S	-	T	D <sub>F</sub> _ID <sub>C</sub>		<u> </u>		L VOLUME =		
						►l d <sub>h</sub> l⊲			/ <sub>1</sub> = +		
BASE OF F					0.25			CUVTE	(8/1)-	1 00 1,3	= 14,099621
ESTIMATE				F							
	DEVE	OPMEN'	The second state and	LIMATED	TOTAL WATER		r	VATER QUA	1		STOP of Casing.
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	REMOVED (gal)	рН	SPECIFIC CONDUCTIVITY (m3/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ore	COMMENTS
8-30-16	0178		9.20								FD=14.60
L.	0929										Surge Start
	0937										end Sicore
	05995	_	9.95	,	2						Staff purp coton
	3946	~Zggm		Pump	01	end	Cup.				Welldry Trobagi
	2950	_	10.5				,				1
	o 951	_	10.34								
	0952	dan	,								ser amp/pump to
	0956		10.5								Strato (Ourse
	1002	-	10.5								Start proposition
	1001		10.5								Start pump lend a
			,								Start purplandary
	1016		105								Staft Puplead purp
	1023	1/-	105	21=	~ 15						201.90
	1025	1/2				p=0 - c	1 (11	5.7	2.536	,-/	raised pup to -94
	129	1/2	10.85	3	17	3.18		507	75.38	156	e' Brot-Hed
	1039	1/2	11.79		27	724		204	72.57	19	-
	1049	1/2	11.94		27	7.32		700	21.56	100	a step
	1109	1/2	12.63	<b>1</b> 0	37	7.13	1.23	729	20.06	121	- Punpater
	1119	1/2		3	42						Pury stop at 119
	1232		7.93		( )		11.616		1		Pup on
	1237	1/4	10,43		43.25			547	25.54	172	
	1257	1/4	11.05		48.25		1.36	69	23.99		
7	1317	1/4	11.84	5	53,25	7.25	1.24	93.1	27.70	139	

PAGE L OF LZ

		_			DDC ICAT	NARAT				WELL	NO
Ged	osynt				PROJECT NAME  CGR-Plase  PROJECT NO.					619	NO. 1w-11
F 200 A 200	consulta		2751172-1-02-1-1-	775 -241	PROJECT	NO.	rase	SITE		PREP	ARED BY
WELL	. DEVE	ELOP	MENT	LOG	NOULOT	110.		olano	ha		Conin
METHOD				DEVELOPM	ENT CRITE	RIA				1 4 (	Cloured
PUMP				wade	c 50	Nto	< 1.	a Ditte	bre 89		
BAILER	₹			REMARKS	, ,	10 10		3 0 1 3	12,00 99	eres	
OTHER	₹										
	WELLCO	NSTRU	CTION DA	ΓΑ (ft)				WELL VOLU	ME CALCULATION	ON	
WELL CAS		JNOTNO	OHONDA	174 (11)		_ d <sub>w</sub>	_				
TOP OF CA		2HT/DEG	TH (TOC)		GROUND	→	тос Т	CASING VOL		( )2	
TIOP OF C	ASING HER	3111/06	=		SURFACE		<b>A A A</b>	$V_c = \pi \left( \frac{q_w ID}{2} \right)$	$\left  \left( TD_{c} - H \right) = 3 \right $	.14[] (	( – )= ft³
INSIDE	DIAM	dll	D =			<sub>+</sub>	STD		,	( 2 )	
	DE DIAM		D =			11 11		FILTER PACI	K PORE VOLUM	IE =	
						-	<u> </u>	$V = \pi \left[ \left( \frac{d_h}{d_h} \right)^2 \right]$	$-\left(\frac{d_wOD}{2}\right)^2$	D _(S or H))	(e)
l	DIAMETER	a <sub>h</sub>	=		ODEENER			(2)	(2)	D <sub>F</sub> (0 0111))	( )
DEPTH TO	=			ı	CREENED NTERVAL			2.14	)2 ( )2	1000	γ )= ft³
l		RVAL	то		`			2 3.14	$ \Big)^2 - \Big( \Big)^2$		λ <i>j</i> = π
WATER	R LEVEL	Н	=======================================					(if S > H, use	S. If S < H, use	H)	
BASE (	OF SEAL	S	=	— т	D <sub>F</sub> TD <sub>C</sub>	-	<u> </u>	TOTAL WEL	L VOLUMF =		
BASE	OF CASING	TD.	c =			<b>→</b>	_		/ <sub>1</sub> = +	= ft <sup>3</sup>	×7.48 = GAL
BASE OF F	ILTER PAG	CK TD	F =			u <sub>h</sub>			'		
ESTIMATE	D FILTER F	PACK PO	DROSITY	P =	0.25						
	DEVEL	OPMEN	T LOG		TOTAL			VATER QUA	LITY		
		FLOW	DEPTH TO	WATER	WATER		SPECIFIC	T	1		COMMENTS
DATE	TIME	RATE	WATER	REMOVED	REMOVED	pН	CONDUCTIVITY (mS/cm)	/ TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
69 e 14	1337	(gpm)	(ft-btoc)	(gal)	(gal)	100		077	226-	95	
8-3016		79		58.05	58.35		1.29		23.65	95	
8-36-16	1347	1/4	12.52	2.5	60.75	6.71	1.25	148	23.01	84	2
8-30-16	1402			~1.25	60						acll dry Proport
8-30-16	1448		9.97								.,,,,
8-30-16	1451	1/9									P
	1 -	1/2	That	3.5	65.5	701	1.47	126	24.38	/18	runps
8-30-16			_			1.51	7. 77	100	21,30	160	
8-30-16	15806	1/2	X125	4	625						Pump randry
8-30-4	1501		16,40°	~							'
8-30-4	512	-	10.21	,						1	end development
				2:							
	7										
											-
								-			
				16							
			1								
						7					
								-			

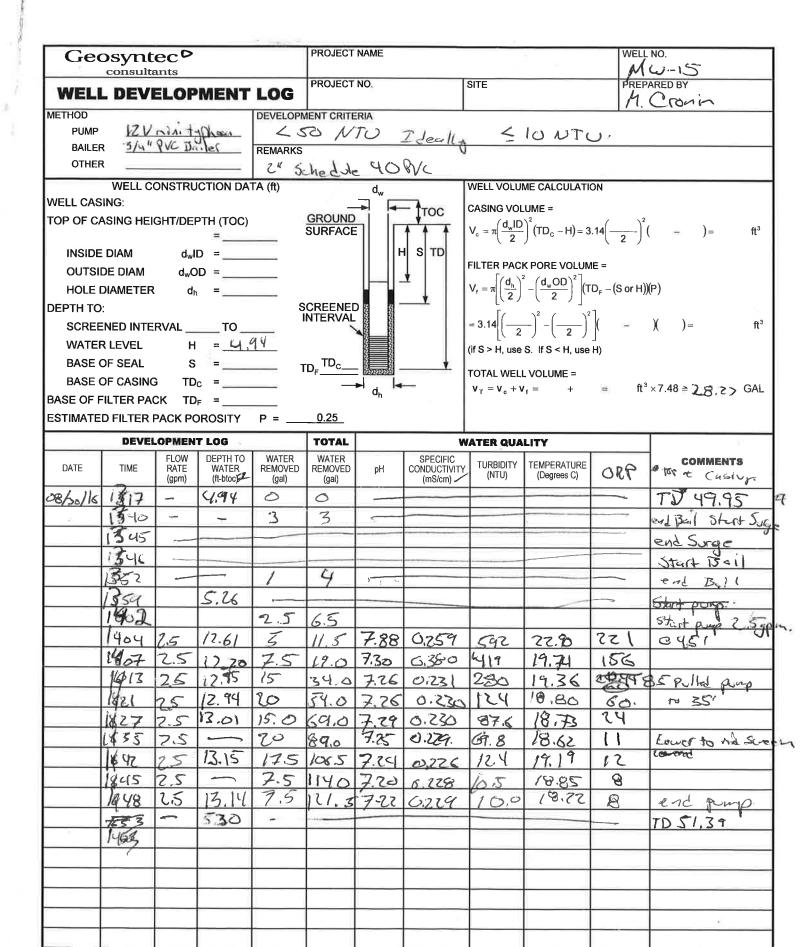


	DEVE	OPMEN	T LOG		TOTAL		W	ATER QUA	LITY		
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	рН	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS  TOPO & Casil
9-01-16	14:20	(Lymnum,	09.35					- 01			TD= 10.94 i. de
	14:25	1			*			_		·	Start surgine
	1430		2.60	m/gal	olgal	0					EN SUNIS/2
	1435			1 gal	7.90			-	_		Endbail
	1438			- OC	3.5		- K	~		_	Start Pumping
	1439		-		_		_		A # .		8 Ump stopped
1	1440		- Pt	MESO	OVA	afte			- ANTUR		Purp start/sty
	. 500	155%	9.41	0.03	16	8,51	2.12	>1000	30.15	43	Purpstart
100	1540	150 Mily	9.63.8		79	8.47	1.92	71000	27,37	-14	
	1520	0.05%		0.50	3-4	8.51	1,78	150	26,65	-106	
			19.65	0,50	2.9	8,42	1.76	100	26.15	-131	
	1540	0,05.	4,66	0.50	300	8.40	1.73	70	25.82	-93	
		0.05	9,66	0.50	stat	8.32	1.65	39	26,21	-100	
	1600	0,05	9.67	0.50	5.4	8,43		29	26,10	-126	
	1610	0.05	9.67	0,50	5.9	0.46	1.63	25	25.52	-159	
	1670	205	9.68	0,50	6.4	8.49	1.59	19	25,67	722	
	1630	0,65	9.69	0.50	6.9	8.50		17	25,27	-133	
	1640	0,05	9.69	0,50	7.4	8.53	1.54	15	25,14	-122	Stopping
				600	amel	2.4	-1-1-		SONTI		70
-			e	7 00	UPICEI		Stabe	00	SUNIV	(5)	
					7						
				$\rightarrow$				- <			
		3		-	1		9/1/	16			

Go5 min/0.25gal

Geosyntec PROJECT NAME  Consultants  PROJECT NAME  CGR-Phase III  PROJECT NO. SITE  PREPARED BY											
WEL	L DEVI		MENT	LOG	PROJECT	NO.	1	SITE		PREP	ARED BY
METHOD					    ENT CRITE	ERIA				17-	Consi
PUMP							< 10	a4:	deally		l
BAILE	R			REMARKS				JY C	Sec 110	-	
OTHE	R										,
	WELL C	ONSTRU	ICTION DA	TA (ft)		d <sub>w</sub>		WELL VOLU	ME CALCULATION	NC	
WELL CAS	SING:				_	→ 4	Ттос	CASING VOI	LUME =		1
TOP OF C	ASING HEI	GHT/DEI			SURFACE			$V_{x} = \pi \left( \frac{d_{y}ID}{d_{y}ID} \right)$	$(TD_0 - H) = 3$	.14()²	( – )= ft³
INCIDI	- DIAM	الم	_ =			*H H.	H S TD	0 ( 2		(2)	` , , ,
	E DIAM IDE DIAM		D =			11 11'		FILTER PAC	K PORE VOLUM	E =	
			DD =				<b>.</b>	$V = \pi \left[ \left( \frac{d_h}{d_h} \right) \right]$	$^{2} - \left(\frac{d_{w}OD}{2}\right)^{2}$	D _(S or H)	(P)
DEPTH TO	DIAMETER	. u <sub>t</sub>	=		CREENE		<u> </u>	1 [(2)	(2)	D <sub>F</sub> (0 0 11)	
	): ENED INTE	D\/AI	TO		CREENEI INTERVAL		-4'	= 3.14	) <sup>2</sup> -() <sup>2</sup>	]( -	) = ft <sup>3</sup>
	R LEVEL							-		_	^ /
					. TD₌		6.51	(If S > H, use	S. If S < H, use	H)	l
RASE	OF SEAL	ە 17 ج	) <sub>c</sub> =		D <sub>F</sub> ··········	- Mannall		TOTAL WEL	L VOLUME =		اسميحا
	FILTER PA					d <sub>h</sub>	-	$V_T = V_c + V_c$	/ <sub>1</sub> = +	≕∷ ft³ ≛	×7.48 = 5.4 GAL
	D FILTER				0.25	8 1		675	Tir ( //e/ )	x 7.4	8 = 21,17
					TOTAL	1	- 1				T
	DEVE	FLOW	DEPTH TO	WATER	WATER		SPECIFIC	ATER QUA			COMMENTS
DATE	TIME	RATE (gpm)	WATER (ft-bloc)	REMOVED (gal)	REMOVED (gal)	рН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	Oep	Top of casing
8-11-K	03-79	(95)	9.45	(gu)	G		Cingan				
3.5	0752	-	صدا ر ۱	74				7			10= 17.56, stor
	0805			/ 4	<u> </u>	- 5					
		-						-	-		Suige and /sky
	0811		-		7.5			-			end Bail
me	1		C. 53		2.5						
	0019	4	9.44	-	2.5						Start Dung.
	0850							L			cuell went dry
	0822		10.65								orded value.
	0858	3/4	13.71	-	10	8,80	0.872	35.2	24.61	/30	
	0830	3/4	14.38	3	13	9.61	0.834	65.1	22.76	54	
	0834	3/21	7 (15.W	3	16			<del> </del>			drop rate to ke
	0836	1/2	11.700	1	17	9.70	0,790	26.2	22.57	48	
	080	1/2	9.9	4	21	9.38			55.82	60	
	0852	1/2	9.91	4	25	9.33		6.0	23.35	56.	-end.
		, _		<u> </u>			0.737	0.0	00.22	3 0	1
T											
					-						
						-		-			
-											

Geo	osynt			PROJECT NAME  CGR Phase 3  TLOG  PROJECT NO.  \$80794  Crystal Geyso  DEVELOPMENT CRITERIA							NO. W-14 ARED BY		
WELL	L DEV	ELOP	MENT	LOG	PROJECT	NO. 0799	*	SITE	all Cour	PREP	K. Agustson		
METHOD PUMP				DEVELOPA	MENT CRITE	ERIA			ru gey	507	111/190313500		
BAILER OTHER				REMARKS		4							
HOLE DEPTH TO: SCREE WATER BASE O BASE OF	ING: ASING HEI DIAM DE DIAM DIAMETER : ENED INTE R LEVEL DF SEAL DF CASING	GHT/DEI  dwl  dwC  RVAL 7  S  TD  CK TD	= DD = DD = D = D = D = E = D =	8,5 S 5,5 I	CASING VOLUME = $V_{c} = \pi \left(\frac{d_{w}ID}{2}\right)^{2} (TD_{c} - H) = 3.14 \left(\frac{1}{2}\right)^{2} (TD_{c} - H) = 3$								
		OPMEN			TOTAL		W	ATER QUA	LITY				
VIV.6	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	рН	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS		
1655-	ラ		well.	ragga	dry	has	d botto.	-e	18.651	95	17=18,65		
-			-	-	_								
-													
										-			
							- 6						
			8 .										
					-								



# APPENDIX D FIELD MONITORING LOGS

## WELL GAUGING DATA

Proje	ect #	090	3/-10,	Date _	8/1/16	Client	being	46	
Site _	1210	5.	Hery	395	0/AnchA	, CA	•		-

					Thickness	Volume of		ı —	Т	
		Well		Depth to	of	Immiscibles			Surve Point	
Well ID	Time	Size	Sheen /	Immiscible	Immiscible	Removed	Depth to water	Depth to well	TOB	
Wolf ID	Time	(in.)	Odor	Liquid (ft.)	Liquid (ft.)	(ml)	(ft.)	bottom (ft.)	100	
MW-01	0875	2					73.48	36-33		
MW-02	1031	2					19.33	20-32		
MW-03	1227	2					15.78	72-80		
MW-15	1350	2					5-14			
ww-c2	0755	2					12.58	51-16		
000-805	1530	4					Artisian 000	15.05		
MW-12	110	2					9-25			
MW-7	0751	2					8.88	10.72		-
mu-L	wie	2						22.70		
MW-13	1153	2					13-80	26.3/		
Mw -9	1309	2					9.45	15-33		
	1422	<del>  </del>					17.76	27,20	·.	
Mu-8	0730 1-60-4	2					14.32	23-4/		
MW-11		2					10-02	14.38		
	0916						9-21	23-33		
mw-y	1019	2				,	12.24	1280	V	,
									1	

LOW FLOW WELL MONITORING DATA SHEET & l'of Z

Project #: (60901-101) Client: Geosphee

Sampler: 11 Gauging Date: 9/1/16

Well I.D.: ww -01 Well Diameter (in.): (2) 3 4 6 8 \_\_\_\_

Total Well Depth (ft.): 33 Depth to Water (ft.): 23-48

Depth to Free Product: Thickness of Free Product (feet):

Referenced to: PYO Grade Flow Cell Type: YSD Fro Plus

Purge Method: 2" Grundfos Pump

Sampling Method: Dedicated Tubing

Start Purge Time: 1837 Flow Rate: 1900 Method: Pump

Peristaltic Pump

New Tubing

Other

Pump Depth: 30'

	Temp.		Cond. (mS/cm or	Turbidity	D.O.	ORP	Water Damand	Depth to Water
Time	(Cor°F)	pН	μS&m)	(NTUs)	(mg/L)	(mV)	Water Removed (gals. or mL)	(ft.)
0840	19-1	6-32	262-9	493	6.08	168-7	1200	23.57
0843	19-0	6-41	257-1	492	6-12	171-4	2400	23.57
.0846	18-9	6.42	247.7	જંવ (	5-70	173-2	3600	23-57
७७४५	17-0	6.43	246.4	462	5.69	173-8	4800	2357
6852	19-0	6.43	218.5	316	5-42	174-0	6000	23-57
0855	18.9	6-45	212-7	228	5.23	173.2	./ 7200	23.57
0888	18.9	6.47	208.5	162	5.28	172-1	8400	23:57
હ્વહ(	18.9	6.49	203-9	118	5_14	171-2/	9600	23-57
0904	(8,8)	6.50	201-3	96	5.26	169-7	16800	23-57
૦૧૦૧	19-1	65%	201.3	85	5,08	168-5	12000	23.57
७५१७	i <sup>c</sup> i co	653	201-7	67	5-13	167-5	13200	23-57
0913	19.0	6-53	199-6	59	5-01	165-8	14400	23,57
Did well devested West NO								

Did well dewater? Yes Amount actually evacuated: 20400 at

Sampling Time: 6929 Sampling Date: 9/1/16

Sample I.D.: MW-01 - 690116 Laboratory: CAISCIONE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See CO-C-

Equipment Blank I.D.: @ Duplicate I.D.: Chloring Free = 0.34 Myll

LOW FLOW WELL MONITORING DATA SHEET P5 2 of 2 Project #: 160901-10) beosyntee Client: Gauging Date: Sampler: Well Diameter (in.): (2) 3 Well I.D.: nw-01 6 8 Total Well Depth (ft.): 36.33 Depth to Water (ft.): 23.48 Depth to Free Product: Thickness of Free Product (feet): Flow Cell Type: P/VO) Referenced to: Grade ¥S立 Pro Plus 2" Grundfos Pump Peristaltic Pump Purge Method: Bladder Pump Dedicated Tubing New Tubing Sampling Method: Other Pump Depth: 30 ( Flow Rate: 400 mlfmer Start Purge Time: 083 / Cond. (mS/cm or Temp. **Turbidity** D.O. ORP Water Removed Depth to Water (Cor °F) μSJom) Time (NTUs) pН (mg/L) (mV) (gals. or m(L) (ft.) 0916 6.54 4-99 163:5 15600 19.0 186-3 51 23-57 0919 193-8 4-84 16800 6-54 39 162-8 23-57 19.0 23-57 0922 4-77 161-2 187-7 38 18000 19-1 6.54 4.83 160.3 0925 19.1 6-54 185.5 19200 23-57 40 154-4 4.74 0928 6.54 184-1 20400 19-1 23-57 38 Did well dewater? Yes No 2040ml Amount actually evacuated: Sampling Time: 0919 Sampling Date: 9/1/16 Sample I.D .: MW-01 Laboratory: CALSCINO Analyzed for: Other gel cone, TPH-G BTEX MTBE TPH-D CHLORM2 TOTAL - 0.34 19/L Duplicate I.D.: Chienne Free - 0.53 mg/L Equipment Blank I.D.:

		LOWI	LOW WE	CLL MON	ITORING	<del>S</del> DATA	SHEET				
Project #	: 16090	3(~147)		Client: Cecsympol							
Sampler:	RO			Gauging I	Gauging Date: 9/1/16						
Well I.D	: mw-02			Well Dian	Well Diameter (in.): 2 3 4 6 8						
	ell Depth (1		3.32	Depth to Water (ft.): 19.33							
Depth to	Free Produ	uct:		Thickness	Thickness of Free Product (feet):						
Referenc	ed to:	KVC	Grade	Flow Cell	Type: y	SF fro	910)				
Purge Meth Sampling M		2" Grundi Dedicated	-		Peristaltic Pump  New Gibing  Other						
Start Purge	Time: 10 40		Flow Rate: _	40 ml/1	· ·		Pump Depth: 2	4/			
Time	Temp.	pН	Cond. (mS/cm or µ\$/om)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mil)	Depth to Water (ft.)			
1043	19.2	6.28	246.7	46	0.40	34-3	1200	18-47			
1046	19.0	6-17	246-1	22	0.32	21.0	2400	19-47			
1049	18.9	6.09	245-0	18	8-35	14-2	3600	19-47			
1052	18-8	6-05	244-2	15	0-37	5-6	4800	19-47			
[05]	18.7	6-06	242-8	10	0.36	-0-4	6000	19-47			
1058	18-7	6.09	239.4	25	0.33	-7.9	. 7200	19-47			
1101	18.8	6-11	237-2	12	0.29	-16-6	8400	18-47			
1104	18.9	6.14	232-3	12	0.26	-26-/	8600	19-47			
1107	18-3	6.15	232-0	12	0.25	-30-3	10800	19-47			
1110	18-9	6-16	230-8	12	024	+35°O	12000	18-47			
/											
Did well	dewater?	Yes	<u> </u>		Amount a	l actually e	vacuated: p	ovo ml			
Sampling	; Time: /	111			Sampling						
	D.: Mw-0		116		Laborato			· · · · · · · · · · · · · · · · · · ·			
Analyzed		ТРН-G	BTEX MT	BE TPH-D		Other: S	e c.o.c				
Equipme	nt Blank I.	D.:	@ Time		Duplicate I.D.: Chlorine Free = 0-10 Mg						

		LUW	FLOW WI	PTT MON	TYOKIN	G DATA	SHEET			
Project #	: 12090	01 - RO,	/	Client:	Client: Geosynfec					
Sampler	: H1			Gauging 1						
Well I.D	: Mw-	3		Well Dian	Well Diameter (in.): (2) 3 4 6 8					
	ell Depth (		60	<del> </del>	Depth to Water (ft.): 15.49					
	Free Prod				Thickness of Free Product (feet):					
Referenc		r(vc)	Grade	<del></del>			o 8105			
Purge Meth Sampling M		2" Grund Dedicated	LPubing		Peristaltic Pump New Tubing Other					
	1 mio	 T	·	300 MC/	M.10		Pump Depth:	20'		
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or nl)	Depth to Water (ft.)		
1201	18.6	7.82	315,4	71	0.38	-112-0	900	15-80		
1204	18-5	7.72	316.8	65	0.33	- 132.8	1800	15-80		
1207	يا-81	7-75	318-5	91	0.30	-1448	2700	15-90		
1210	18.9	7.74	318-3	82	0.27	-147-9	3600	15-80		
1213	18.9	7-73	318.4	45	0-27	-148.3	4500	15-80		
1216	188	7.65	321-1	16	0:24	-147.3	5400	15.80		
1219	18:5	7-62	321-4	8	0-24	-1468	6300	15-80		
1222	18.6	7.57	324.6	8	0.22	-144.8	7260	15-80		
1225	18.9	7-52	328-0	8	0.23	-142-8	8100	15-80		
		the fight								
/										
Did well d	ewater?	Yes /	No.		Amount a	ctually ev	acuated:	8100mc		
Sampling '	Time:	1116			Sampling	~	//	VICEPIE		
ample I.I	): MW-	3-090	0816				7.0			
Analyzed t	for:	TPH-G	BTEX MTBI	E TPH-D		Other CA	Sclence - COC - SI	incis and		
ace ( Equipment	५-०५-०५०७॥ Blank I.I	Ď.:	@		Duplicate		/ C-U-C - 3	ioc only		
loine T			- L	<i>y</i>	- aprilate	1.1./.,		1		

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Project #:	16090	(-M(		Client: (	n oeosym	kc					
Sampler:	LI			Gauging I	Date: 7	1116	`				
Well I.D.	: MW -05	3		Well Dian	Well Diameter (in.): 2 3 4 6 8						
	ll Depth (f		-80	Depth to Water (ft.): 1548							
Depth to	Free Produ	ıct:		Thickness of Free Product (feet):							
Reference	ed to:	PVO	Grade	Flow Cell	Type:	' Y5Z	fro Plus				
Purge Method: 2" Grundfos Pump Sampling Method: Dedicated Tubing Start Purge Time: 136 Flow Rate:			300 pre foris	Peristaltic Pump Bladder Pump  New Tubing Other  Pump Depth: 20							
Time	Temp.	pН	Cond. (mS/cm or µ\$/¢m)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)			
1239	18-8	7-33	275-1	75	0.31	-2120	900	15-85			
1242	18.6	7-24	274.8	5 <i>i</i>	0.25	-212-9	1800	15.85			
1245	19-0	7.27	275.2.	38	034	-1828	2700	15.86			
1248	19-3	7.34	274-3	30	0.29	-212.5	3600	15-86			
125/	18.7	7.38	274-9	31	0-21	-224-8	4500	15-86			
1254	18.9	7.42	274-8	22_	0.34	- 24-5	5400	15-86			
1257	19-1	7-46	274-6	ro	0-42	-217-9	6300	15-86			
1300	19-4	7-43	215-3	17	0-41	-221.6	7200	15-86			
1304	19.3	2-50	275-9	17	040	-225-5	8/00	15-86			
1307	19-0	7-48	273-6	16	0-36.	-225-1	9000	15-86			
/											
Did well	dewater?	Yes	<u> </u> √199		Amount	actually e	vacuated: q	coonl			
Sampling	; Time:	1308			Sampling	g Date:	9/1116				
Sample I.	.D.: MW	-03-0	90116		Laborato	ry: Chl	ocienee	·			
Analyzed		TPH-G	BTEX MT	BE TPH-D	Other: Serciac						
Equipme	nt Blank I	.D.:	@ Time	Laboratory: CAISCLENCE  BE TPH-D Other: Ser c.a.c.  CAISCLENCE  CAISCLENCE  Duplicate I.D.: Chips/ne Foel = 029 mg/c							

		200112	220 11 112	DALL IVIOI	TT OXXIII	ODALA				
Project #	: 1609	U(-10)	1	Client:	Geos	mtee				
Sampler:	M			Gauging 1	Date:	9/8/4				
Well I.D.	: mw-	.4		Well Dian	neter (in.)	: 6	3 4 6	8		
Total We	ll Depth (	ft.): 31	86					the second secon		
	Free Prod				Depth to Water (ft.): (2.24) Thickness of Free Product (feet):					
Reference		PÝS	Grade	Flow Cell			iro (lus			
Purge Meth Sampling M	od:	2" Grundf Dedicated	os Pump		Peristaltic New Tubir	Pump	Bladdef Pump Other			
Start Purge	Time: <u>  O U</u>	<u>Y</u>	Flow Rate: _	400 m	( fuju		Pump Depth: (	6		
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)		
1027	20-6	9.75	168(	68	5-18	65-6	1200	12.54		
(०५०	20-7	2.74	1683	67	5-19	66-4	2400	1254		
1033	20-7	9-77	1692.	62	5-12	67.2	36-00	1254		
1034	20-9	9-98	1696	69	5-05	68-0	4800	1254		
1039	20-8	9.7%	1686	6(	5-07	68-C	6000	12.54		
1042	20-8	9-78	1695	45	5.04	69-5	7200	1254		
1046	20-8	9-78	1684	36	5.04	70-0	8400	1254		
1048	20-8	9.77	1684	33	5.05	705	9600	1254		
1051	20-8	9-78	1693	31	5.00	70-9	10800	noy		
1054	208	9-78	16 93	30	3-04	71-3	12000	1254		
							CHICLINE Testra	1=0.00mg/C		
							CH/CRINE Fred	= 0.00 mg/c		
Did well c	lewater?	Yes	<u> </u>		Amount a	ctually e	vacuated: /2	ocom		
Sampling	ampling Time: 1055 Sampling Date: 9/8/16									
Sample I.I	D.: MW-	4-09	0816							
Analyzed			втех мтв	E TPH-D		Other: Co	Sièenel Q C.O.C.			
7 1W-04 - 040816- 1000 @						I.D.:				
				<del></del>		···		į.		

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		LOWI	LOW WI	ELL MON	ITORING	G DATA	SHEET			
Project #	: 160901	-19)		Client:	· G	eosyno	fec.			
Sampler:	, ,			Gauging I	Date: 9	18/16				
Well I.D.	: Mw-	<u> </u>		Well Dian	neter (in.)	: <b>②</b>	3 4 6	8		
	ell Depth (1		-33	Depth to V	Water (ft.)	: 9.	 11			
	Free Prod			Thickness	Thickness of Free Product (feet):					
Referenc	ed to:	P(VC)	Grade			•	pro plus			
Purge Meth Sampling M	od: lethod:	2" Grundf Dedicated			Peristaltic l	•	Bladder Pump Other			
Start Purge	Time: 09	23	Flow Rate: _	460 inclus	(A) .		Pump Depth:	161		
Time	Temp.	pН	Cond. (mS/cm or µS/ <b>c</b> m)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or n①)	Depth to Water (ft.)		
OFT	18:7	850	1204	20	0-54	655	1200	9.42		
0919	18-9	8,46	1187	18	06)	62-8	2400	9-42		
.0932	19.4	8.56	1238	12	1-22	620	3600	9.42		
0935	1995	8-64	1257	É	1.56	61-3	4800	9.42		
0938	19-5	8.69	1268	7	1-83	61.5	6000	9-42		
0941	19.6	8-70	1270	7	1-96	60-7	. 7200	9-42		
0944	196	8-73	1274	7	1-97	60-6	8400	9-42		
		ge ja	£.							
,		<u> </u>					CHLORINE TOTAL CHLORINE FYRE	= 0-001mg/c = 0-01 mg/l		
Did well o	dewater?	Yes	<u>(6</u>		Amount a	actually e	vacuated: ¿	3400ML		
Sampling	Time:	3945			Sampling	Date: 9	48/16			
Sample I.	D.: MW-	5-090	5814		Laborato	ry: ca	1 Schenea			
Analyzed	for:	ТРН-G	BTEX MTB	BE TPH-D		ر Otker: کو	Ischenea ne C.o.C.			
Equipmen	nt Blank I.J	D.:	@ Time		Duplicate					
Diaina T	I- O		4000 5	naore Avo						

		LOW	TOM MI	ELL MON	LTORING	G DATA	SHEET			
Project #	: 16090	21-801		Client:	George	iter				
Sampler:				Gauging I						
Well I.D	: mu*(			Well Dian	neter (in.)	: ② :	3 4 6	8		
Total We	ell Depth (		-31	Depth to V	Water (ft.)	: 13.	80			
İ	Free Prod			<del></del>	Thickness of Free Product (feet):					
Referenc	ed to:	<b>F</b> VQ	Grade	Flow Cell						
Purge Meth Sampling M		2" Grundf Dedicated	_		Peristaltic Pump  New Tübing  Other					
Start Purge	Time: /03/	7	Flow Rate: _	400 mlfajin	<u>,                                     </u>		Pump Depth: Z	ه (		
Time	Temp.	pН	Cond. (mS/cm or µ8/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (nk)	Depth to Wate (ft.)		
1040	21-1	9.67	1948	37	0.15	<b>-6</b> 44 · (	1200	13.89		
1043	21-4	9.24	1306	20	022	-536.5	2800	13-89		
1046	us	9.22	BU	18	0.27	-507.8	3600	13-89		
1049	21.5	9.16	1164	15	035	-309.2	4800	13.89		
1052	શ.ષ	9.16	1863	10	0.34	-95	6000	13-89		
1055	21.5	9.15	1300	8	0.33	-122	. 7200	13-89		
1058	21.5	9.13	1304	8	0.33	-125	8400	13-89		
1101	21-5	9-12	1335	7	0-34	-130	9600	13-89		
		\$ <u></u>								
***************************************		. X. Arin		#						
/				****			CH/ONINE TOTAL CH/OXINE Free	= 0.03 mg/C		
Did well o	lewater?	Yes	M6)		Amount a	ctually e	vacuated: 9	100mC		
Sampling	Time: /	102			Sampling					
Sample I.I	D.: MW-6	-09071	<b>1</b> 6		Laborator	y: CA	Schenie			
Analyzed			BTEX MTB	Laboratory: CH/Scland E TPH-D Other: See C.O. C						
Equipmen	t Blank I.I	D.:	@ Time		Duplicate			12/42/2004		
		·····			T = 2					

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		TOM I	TOW WI	ELL MON	TTORING	G DATA	SHEET			
Project #	: 16090	1-601		Client: Geosynte C						
Sampler:	140			Gauging I	Gauging Date: 9/7/16					
Well I.D.	: mw-	7		Well Dian	Well Diameter (in.): 2 3 4 6 8					
Total We	ell Depth (1	ft.): 22	-70	Depth to V	Depth to Water (ft.): 888					
Depth to	Free Produ	uct:	<i>*</i>		Thickness of Free Product (feet):					
Referenc	ed to:	P <b>(</b> €)	Grade				Pro 7/45			
Purge Meth Sampling M		2" Grundf Dedicated	_		Peristaltic Pump  New Tubing  Other					
Start Purge	Time: <u>0</u> 60	7	Flow Rate: _	50 melna	٨ .		Pump Depth:	(B'		
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or Mh)	Depth to Water (ft.)		
08/6	20.2	7.26	591	158	0.62	-340.2	119	9.13		
0813	205	7-43	590	132	0.52	-318.8	300	9.28		
. 0816	20.6	7-55	591	139	044	-332-3	450	9.40		
0819	20-7	7-66	591	195	0.40	-356-3	600	9.49		
0822	20-9	7.74	592	124	0.41	-337-5	750	9-56		
<b>682</b> 5	20-9	7-81	592	117	0.41	-341.5	. 900	9.63		
०४१८	209	7.84	593	116	0.39	-3443	1050	9.69		
v¥3l	20.9	7-87	593	112	0.37	-348.	1200	9.75		
		\$25.41	e.							
/										
D: 1 11	1		<u></u>							
Dia well o	lewater?		160		Amount a	actually e	vacuated: (2	loom		
Sampling	Time: (	0832			Sampling	Date: 9	12/16			
Sample I.	D.: mw-	7 -090	57/6		Laborator					
Analyzed	for:	TPH-G	втех мтв	E TPH-D		Other:Se	e c.o.c.			
Equipmen	t Blank I.I	D.:	@ Time	Duplicate I.D.: cHloant Free & v mj/k						

Equipment Blank I.D.: Duplicate I.D.: CHOUNE Free & O mj/L

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Fille

Project #:	160901	-10/		Client:	Client: beosyute c					
Sampler:	120			Gauging I						
Well I.D.	: MW- (	<del></del> Z		Well Dian	neter (in.)	: Ø 3	3 4 6 8	3		
Total We	ll Depth (1		n 41	Depth to V	Depth to Water (ft.): 14-32					
Depth to	Free Produ	uct:		Thickness	Thickness of Free Product (feet):					
Referenced to: PV6 Grade				Flow Cell		<del></del>	Pro Plus			
Purge Method: 2" Grundfos Sampling Method: Dedicated T			Tubing	Peristaltic Pump  New Tubing  Other						
Start Purge	Time: 143	<u></u>		400 ml	myw.	· · · · · · · · · · · · · · · · · · ·	Pump Depth:	18'		
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O.	ORP (mV)	Water Removed (gals. or nat)	Depth to Water (ft.)		
1433	19-(	7-21	<b>3</b> 28~3	76	0.40	~247~0	1200	14-36		
1436	19-0	7.11	328-7	75	0.35	-261.2	2400	14-36		
1439	19-0	7-07	3302.	79	0.33	-271-7	3600	14-36		
1442	19-1	7.05	331.0	51	0.32	-27534	4800	14.36		
1445	18-8	7.03	3315	39	0.28	-279.2	6000	14-36		
1448	18.7	7.02	331-9	27	0.27	-283.2	7200	14.3%		
inst	18.8	7-01	331-8	19	025	-287-8	<i>840</i> 0	14-36		
1454	18-8	7-00	332.Z	18	0.25	-288-0	9600	14-36		
1457	18-8	7.00	333- O	18	0.25	-288.9	10800	14.36		
							CHIORINE FREE	= 0.03mg/L = 0.01 mg/c		
Did well o	lewater?	Yes	KB		Amount a	actually e	vacuated: /	oswoul		
Sampling Time: 1458 Sampling Date: 2/7//6										
Sample I.I	D.: MW.	8-090	716		Laborato	ry: CA	Science	·		
Analyzed			BTEX MTE	BE TPH-D		Other: S	le coc.			
Equipmen	QŒ( t Blank I.	}-03-090 D.:	N6 @ Time	Duplicate I.D.:						

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		LUWI	TO M MT		L MONITORING DATA SHEET						
Project #	: 16090	1-R01		Client:	Geosynt	EL					
Sampler:				Gauging I							
Well I.D.	: Mc - 9	·		Well Dian	neter (in.)	: ② 3	3 4 6 8	3			
Total We	ell Depth (f	ft.): ขา	.20	Depth to V	Depth to Water (ft.): 17-76						
Depth to	Free Produ	uct:		Thickness	Thickness of Free Product (feet):						
Reference	ed to:	rvc	Grade	Flow Cell			Pro Plus				
Purge Methors Sampling M		2" Grundfe Dedicated			Peristaltic Pump  New Tubing  Other						
Start Purge	Time: !31	7_	Flow Rate: _	400 m	(morel		Pump Depth: 2	31			
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed	Depth to Water (ft.)			
1320	17.3	7-38	1039	طاعا	10.9	-117-5	1200	18:13			
1323	17-8	7-26	1085	1६५	0-99	-95-3	2400	18-13			
1326	17.9	7.22	1038	104	0-91	-87-7	3600	18-13			
1329	18.0	7-18	1090	52	6.84	-83-9	4800	18.13			
1332	18.0	7.16	1092	45	017	-82.5	6000	18-15			
1335	18.0	7-15	1091	24	0.73	-94-0	7200	18.15			
1338	17-9	7.15	1092	9	0.10	-96.3	8400	18.16			
134)	17.8	7.14	10 90	8	0.68	- 100-8	9600	18-16			
1349	17.8	7.12	1093	9	0.64	-105-6	10800	18-16			
		A A A A A A A A A A A A A A A A A A A									
/							CHIOLINE Fra	= 0.00 my/C = 0.00 ms/			
Did well o	dewater?	Yes	NG		Amount a	actually e	vacuated: 16	foo me			
Sampling Time: 1356 Sampling Date: 9/7/16											
Sample I.	D.: Mw-9	-090	116		Laborato	ry: C4/5	Science				
Analyzed			BTEX MTB	BE TPH-D		Other: Se	e c.o.c.				
Equipmen	nt Blank I.J	D.:	@ Time		Duplicate I.D.:						

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<b>_</b> .	Purged DTW OC MS/Cm WQ Parameters Mg							mali	[
Time	Purged	DTW	Temp	EĆ	, pH	ORP	Turk	MI	Comments
10:10	Stav	+ pu	Bing	100 m	min				
1	,	1	1.00						
10:15	500 ml		16.6	0.130	6.91	37,3	36.1	0,41	
10:18	800ml		14.5	0.131	6.97	2.2.5	3,2	0.38	
10,70	1006		16.5	0.131	7.02	16.6	2.1	0.39	
10:72	1200		16.5	0.131	7.08	\$15	3,3	0.35	
10:22	1400		16.5	0.131	7.02	3.0	3.2	0.33	
10:126	1600		16.5	0.131	7.10	2.5	3.7	0,30	
10:28	1800	. 6	16.5	0,131	7:10	2.5	4.0	0.30	
	Stal	ilized	@ 10:	Q.					
	7144	4464	-0 10						
	Sampl	a 16:	30					s i	
7									
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				***************************************					
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				-					
		2.6	: (3						
		14.							
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	p-								<b>†</b>
	<u> </u>	L	L			<u> </u>	<u></u>	L,	

LOW FLOW WELL MONITORING DATA SHEET CEOSIMEC Project #: 1100901 - 101 Client: Gauging Date: Sampler: 10 Well Diameter (in.) : (2)3 6 4 8 Well I.D.: MW-1 Depth to Water (ft.): 14-38 1002 Total Well Depth (ft.): Thickness of Free Product (feet): Depth to Free Product: Pro Plus Flow Cell Type: YST Referenced to: PVO Grade Bladder Pump 2" Grundfos Pump Peristaltic Pump Purge Method: Dedicated Tubing New/Tubing Other Sampling Method: 121 150 milmin Start Purge Time: <u>0738</u> Pump Depth: Flow Rate: Cond. Temp. (mS/cm or **Turbidity** D.O. ORP Depth to Water Water Removed (ft.) (NTUs) (gals. or mL) Time (Cor F) pΗ  $\mu S/cm$ ) (mg/L)(mV) 10-24 138 469 4JA) 0.45 1160 アダブ 0741 166 10-24 900 0.38 0.9 16-8 1244 164 7.28 0744 1025 141 -23-1 1350 7-10 17-0 1357 0:35 6747 -33-0 115 10.25 0-33 17.1 7-03 1432 0750 1800 1499 97 0.33 -43.7 10.25 17-1 2250 0753 6-98 1838 0756 72 0-33 1025 17-1 1096 -51.7 2700 0759 56 17.2 -59.5 10.25 6-95 0.31 3**05**0 1572 17.2 40 10.2t 694 1598 0.32 -64.1 3600 0802 1627 6.93 32 -68-2 0.34 17.3 4050 10.25 0805 10-25 17-3 6.93 0808 1647 28 -71.4 0.67 4500 10.25 4910 0-69 0811 6-92 1662 <del>-73-7</del> 17.4 0814 10-26 6-92 0.75 11.4 -763 5400 1675 Ro TLOOM Did well dewater? Amount actually evacuated: Yes Sampling Date: 9/8/1/2 0877 Sampling Time: Laboratory: CAlsclence mw-11-090816 Sample I.D.: Other See C-0°C. Analyzed for: TPH-G TPH-D BTEX **MTBE** cHOPME TOTAL = a 02 MIK a) Duplicate I.D.: Equipment Blank I.D.:

CHLORINE Free = 0-01 mg/L

LOW FLOW WELL MONITORING DATA SHEET 79 70f2 Client: 600 Synto C Project #: 160901-09/ Gauging Date: Sampler: M MW-1) Well Diameter (in.): 3 6 Well I.D.: Total Well Depth (ft.): 14-38 Depth to Water (ft.): 10-02 Thickness of Free Product (feet): Depth to Free Product: Pro Plus Flow Cell Type: 452 Referenced to: Grade 2" Grundfos Pump Peristaltic Pump Purge Method: Bladder Bump Dedicated Tubing New Tubing Other Sampling Method: Pump Depth: 12 150ml/mm Start Purge Time: 073 / Flow Rate: Cond. (mS/cm or Temp. Turbidity D.O. ORP Depth to Water Water Removed Time (C)or °F) (NTUs) pН μ\$/7cm) (mg/L)(gals. or mL) (ft.) (mV) 0817 5950 175 1682 U-70 10-92 1026 -80-4 10.26 01320 1686 83-4 6400 0.64 6.92 17-5 15 -85-8 6850 0823 14 10-26 17.5 6-91 1695 0.62 6-91 -86.2 0826 17-5 1698 14 0-60 7200 10-26 CHICAME TOTALE O. O. O. O. CHURINE PREE 2 001mg/ Did well dewater? Yes 7200ml Amount actually evacuated: MO Sampling Time: 0817 Sampling Date: 4 9 16 Sample I.D.: MW-1/ ~090816 Laboratory: CAlscience Analyzed for: Other: See COC. TPH-G BTEX MTBE TPH-D a) Equipment Blank I.D.: Duplicate I.D.: Time

LOW FLOW WELL MONITORING DATA SHEET

Project#	: 160901	- 1471		Client:	Coeosynt	ci		
Sampler:				Gauging I				
Well I.D.	: mw-12	/		Well Dian	neter (in.)	: (2) 3	3 4 6 8	3
	ll Depth (1		 )ひ	Depth to V	Vater (ft.)	: 9	-25	
	Free Produ		<u> </u>	Thickness	of Free P	roduct (fe	eet):	
Reference		P(VQ	Grade	Flow Cell		······································	Pro Plus	
Purge Methors Sampling M		2" Grundf Dedicated			Peristaltic I		Bladder Pump Other	
Start Purge	Time: <u>  [] L</u>		Flow Rate: _	200 me	mil	•	Pump Depth: 10	» <sup>/</sup>
Time	Temp.	pН	Cond. (mS/cm or µS/dm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mt)	Depth to Water (ft.)
1625	21-9	8.65	LLBY	295	0-73	-150-9	600	9-35
1628	12.0	8-72	tho	191	054	-171-9	975	9.43
1631	21.6	8.78	1737	88	049	- 187-1	1350	9.43
W34	21-5	8-81	1732	55	0.47	-200-2	1725	9.43
1637	21.2	8.86	1726	38.70m	0.44	-2182	2100	9-43
1640	21.3	8.89	1713	30	0.42	- 228-4	. 2475	9.43
1643	21.2	8.93	1723	20	0.39	_ 2400	2850	9.43
ાહપીઠ	21.2	8.95	(721	21	6-37	-243-6	3225	9-43
1649	૫.3	8.99	1723	20	0.35	-248-7	3606	9-83
		1.7. 1964	4:			<u>.</u>		
/								
					747-474-4		CHLORINE TOURS CHLORINE Free	- 0.0 mg/(;
Did well o	dewater?	Yes	<b>(</b> 2)		Amount a	actually e	vacuated: 30	soo me
Sampling	Time: [[	<i>o</i> ?.			Sampling	Date:	9/16/16	
Sample I.	D.: MW-1	12-0900	olb		Laborato	ry: cals	· Cleace	·
Analyzed	for:	TPH-G	BTEX MTE	BE TPH-D			_ C-O-C ·	
Equipmer	nt Blank I.	)(4)-01-01 D.:	Time	1600	Duplicate			

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-055

LOW FLOW WELL MONITORING DATA SHEET

			FTO AA AAT	PLU MION	TIOKIN	GDAIA	SHEET	
Project #	1: 160 201	-60/		Client:	Geosynte	d		
Sampler:		,,		Gauging I				71
Well I.D	: Mw-1	3		Well Dian	neter (in.)	: Ø :	3 4 6	8
Total We	ell Depth (	ft.): 15	5-33	Depth to V	Water (ft.)	): 9.45	_	
Depth to	Free Prod			Thickness		<del></del>		
Referenc	ed to:	P(C)	Grade	Flow Cell		YST P		
Purge Meth Sampling M		2" Grundf Dedicated			Peristaltic I	Pump	Bladder Pump Other	
Start Purge	Time: 120	0	Flow Rate: _	400 mlas	<u></u>		Pump Depth:	12'
Time	Temp.	pН	Cond. (mS/cm or µS(cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1203	22-3	9-15	13.24	78	0-88	-55-4	1200	245
1206	-22.2	8-63	1243	74	0.81	- 98-1	2400	9-48
1209	22-1	8-56	1180.	50	0-71	-119-7	3606	2-00
12/2	22-1	8-15	1093	<b>4</b> 3	0-71	-130.3	4800	2.50
1215	22.72	8.58	10%	16	0-78	-129-5	6000	950
1218	22.1	8.59	1024	12	0.81	-133-6	7200	251
1221	22.2	8.59	1013	9	0.83	-133.5	8400	9.52
1224	22-1	8.58	1000	8	6.87	-208-4	9600	2-52
1227	22-2	8.59	992	7	090	-207-6	10800	2-52
1230	22.7_	8-59	990	7	0-90	-204-6	12000	8-52
/								
							CHIORNE THAT =	0.00 mg/L
Did well o	dewater?	Yes (	No		Amount a	actually e	1	coo me
Sampling	Time: t	131			Sampling	Date: 97		<del></del>
Sample I.I	D.: MW-1	13-090	716		Laborator	ry: Cr	Alscience	
Analyzed			BTEX MTB	BE TPH-D		Other:Ge	e C.o.c.	
Equipmen	t Blank I.I	D.:	@ Time		Duplicate			
			***************************************					,

# LOW FLOW WELL MONITORING DATA SHEET

Project #	: 160901	-91		Client:	Geosyn	rec		
Sampler:	RO			Gauging 1	Date: ?	11/11		ř
Well I.D	: MW-15			Well Diar	neter (in.)	: Ø 3	3 4 6	8
	ell Depth (		عا1۔	Depth to	Water (ft.)	: 5./	. 4	
	Free Prod			Thickness	of Free P		· · · · · · · · · · · · · · · · · · ·	
Referenc	ed to:	PVC	Grade				gre Plus	
Purge Meth Sampling M		2" Grundi Dedicated			Peristaltic I	? Pump	Bladder Pump Other	
Start Purge	Time: 135	<u> </u>	Flow Rate: _	400 pel/s	um .	•	Pump Depth:	18-5
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or val.)	Depth to Water (ft.)
1402	19-6	8-00	309-9	172	0-39	-226-8	1200	550
1405	18.7	7-82	309.8	354	0-34	-226-1	2400	5-56
1400	18-8	7-87	310-0.	466	0-30	-227-1	3600	550
1411	21-0	7-85	309-2	298	0.30	-227.8	4800	5.50
1714	18.3	7-90	311-0	257	0-35	- 225.0	6000	5.50
1417	18-2	7-92	313-0	217	0.30	~233~3	7100	5:50
1420	18-3	7-84	310-0	201	031	-232-6	8400	S FO
1423	18-5	7-93	309.9	120	0-28	~234-5	9600	550
1426	18-7	7-93	310-0	163	0-25	-286-7	16800	550
1429	18.7	7-94	309-4	195	0-21	-240-6	12000	5-50
1432	18-7	7-25	309-8	198	0-22	-241.3	13200	5-50
1435	18-8	7- 35	310-1	206	0-20	-242-5	14400	5.50
Did well	dewater?	Yes	Mo		Amount a	actually e	vacuated: /y	400 al
Sampling	Time:	1436			Sampling	Date:	hh	
Sample I.	D.: MIU.	-15 - 090	116		Laborato	ry: Cals	ichnel	

Duplicate I.D.: CHloring Free = 0-0 mg/c Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

TPH-D

MTBE

1540 Time

TPH-G BTEX

Analyzed for:

CEB-01-જાલી Equipment Blank I.D.:

Other: Sec c-o-c

		LOW	FLOW WI	ELL MON	ITORIN	G DATA	SHEET	
Project #	: 160901	-201		Client:	Ceas	rntec		
Sampler:	20			Gauging 1	Date:	9/11/16	770	
Well I.D	: Ow-8	υS		Well Diar	neter (in.)	: 2 3	3 4 6	8
Total We	ell Depth (	ft.) : -		Depth to	Water (ft.)	: 0.0	o' Ar	tism
Depth to	Free Prod	uct:		Thickness		*****		1001
Referenc	ed to:	RVC)	Grade			*	no Plus	
Purge Meth Sampling M		2" Grundi Dedicated			Peristaltic New Tubin	~	Bladder Pump	artisium well
Start Purge	Time: 1535		Flow Rate:	1.4 Ltx/n	mm.		Pump Depth:	
Time	Temp.	pН	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mls)	Depth to Water (ft.)
1538	15.5	7.97	192.3	0-74	0.17	-159-6	4-2	0.00
154/	15.5	7-98	192.3	0.40	0.15	-169.2	8.4	0.00
1544	15.5	8-07	192.3 1-83-610	0-37	0.12	-183.6	12.6	000
1547	15-5	8.14	192.3	0.33	0-11	-194-8	16.8	000
1550	15:5	8-19	1922	0.24	0-10	-204-8	21.0	0.00
1553	15.5	8.22	192.1	0.45	0-10	-211.0	25-2	0-00
1556	15-5	8.25	192.1	0-22	0.09	20.5	29.4	0-00
1559	155	8-26	192.2	0-23	0.09	-224-4	33-6	0-00
1662	15.5	8.28	1922	0-32	6-03	-224.8	37.8	0.00
,		. X.			·			
Did well c	lewater?	Yes (	No)		Amount a	ctually ev	vacuated: 3	7-8
Sampling	Time: /	430			Sampling	Date: 9		
Sample I.I	D.: OU-	BUS-1	3906M2		Laborator	<u></u>		
Analyzed			BTEX MTB					
	t Blank I.I	D.:	@ Time		Duplicate	I.D.	Sea CDI.  eltoure a  CHlorne F	otel ono mile
Ilaina Ta					7		colorne t	ree o-er ung/

laine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

# WELLHEAD INSPECTION CHECKLIST

				•				,	, rage or _	
Client							Date	2/1/	16	
Site Address	1210	S- Hu	14 395	6/4	mehA,	CA				
Job Number	160918	1-801				Tech	nician 🎉	MANNY	Tre	
Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12"or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-01	V	~	Strandpipe		12					
MW-02	V	~	Sta-dlipe							
mev-03	v	v	Stund Pile							
A1W-15	i	V	Standpipe							
WW-02	<u></u>	2	Stunding							
OW-805	V	~	Standage							
MW-12	v	v .	StamelPIPE							
mw-7	v	V	Standpipe							
MW-L	v	v	Standfipe							
MW-13	V	V	Stand PIPE							
mw-8	v	~	Stand PIPE			٠.				
MW-8	~		Structure	,						
MW-11	~	V	standpipe							
MW-5	V	Ÿ.	Stundpipe		-					
MW-4	V	V	Standare							
NOTES:					*					L
<del>-</del>										
										. ,

BLAINE TECH SERVICES, INC.

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

www.blainetech.com

# TEST EQUIPMENT CALIBRATION LOG

PROJECT NAI	ME Geosynt	ec o bla	ANCHA		PROJECT NUI	MBER /6098	-601	
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANI USED	DARDS	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI Proglus	12516700	CBÓO	8H	7.00	6.96 10-05	7.00	20-/	D
	1	1	COND	4-00 3900	3-81 3922	4-00 3900	20.2.0	10
Y	1	<b>\frac{1}{2}</b>	06.P D0%	251·6 100	23 <b>5.</b> 0 87.3	231-6 9 <b>8</b> -4 90	20.7	6
					·			
75 <u>T</u> 2007US	20100	9/1/6	P.IJ \	7.00	7-04	7.00 10.00	17-8	Ry
			Cono	4-00 3500	4-03 3890	3900	17.4 166	B
1			0:W D0%	747-9 100	243-6	24 <b>2.4</b> 97.90	16-6 20-0	10
<i>E.</i> S.		,		·			*.	
YSI Poillus	12510700	1515. 18/2/16	P#	7-00	7-06 10-01	7.60 1600	28-6	Ŋ
		Ţ.	cond	4.00 39 <i>9</i> 0	3-96 38-84	4-00 3900	28-4 30-3	No
4	$\lambda$	Ÿ	oll <u>10%</u>	100	93.270	224-5 98-1/8	31.0 253	M

# **TEST EQUIPMENT CALIBRATION LOG**

DDC IECT NAM		$\sim$ 1					-	
PROJECT NAM	11E biodyntei	@ clanche	4		PROJECT NUI	MBER 160901	-RO/	
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANI USED	DARDS	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
VSI	12010700	9/7/16	BH	7.00	6.84	7-00	18.3	
Proply)	OL 45ro	0675		10.00	9-95	10:00	18.3	10
			Cond	4-00 3900	4.01 39.06	4-06 3900	18-1	N
			DO %	212-7	253-0	212-7	16-8	Po
V V			<i>po /e</i>			97.990	3 3	
YSI Pro (lu)	144102842	૧/૧/1૮ ૦૯૫૬	P4	7-00 10.00	6-96 15-02	7,00 10,00	19-9	Re
			cono	4-00 3900	3-99 3888	7900	19-1	R
$\vee$	4	$\sqrt{}$	ORP PUZ	139,4	75-3%	239-4 97- <b>9%</b>	18-3 20-1	RD
				***				
						- '		1,000,000
		L						

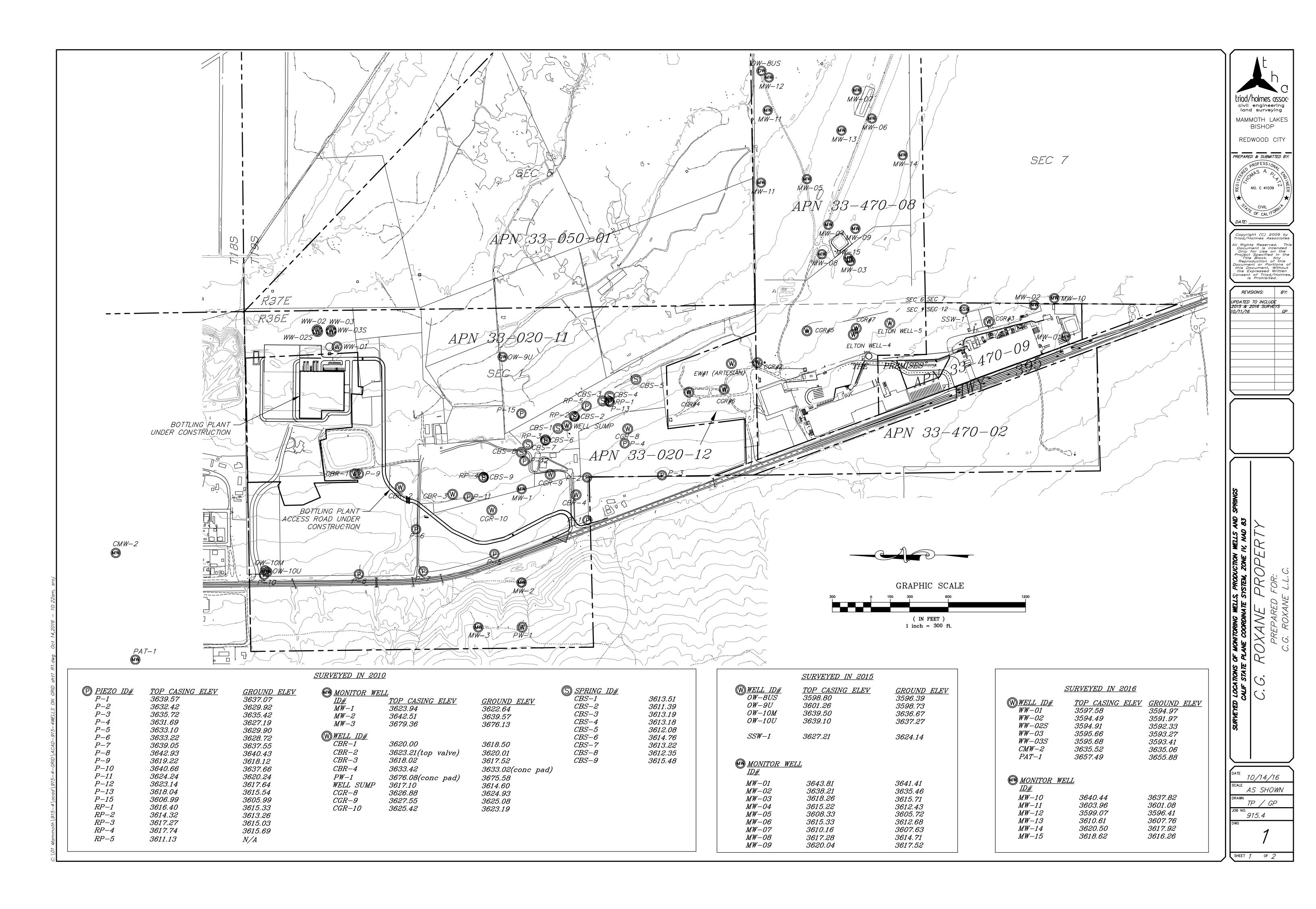
# Geosyntec consultants

# **SOIL GAS PROBE MEASUREMENTS**

130 Research Lane, Suite 2 Guelph, Ontario, Canada N1G 5G3 (519)822-2230 Fax (519)822-3151

Project Na Date: Of A Site Location: Weather: Field Personne Recorded By:	01000	516 -ha -tot	XANE High	Project N 95- \య	Number: <u>58</u> 513- 0 F	MDG 200	02 Heliui	m	al No.: 577  100 Landfill Gas M detector Serial N Helium  Oth	10: <u>U52</u>	SIIX	NA (FF	Lampt	gas probe 10.6 × 11.7 eV  ENTAL)
② Surface Ty	pe: 🗌 Aspl	nalt 🔲 Co	ncrete 🔲 (	Grass 🗵 Oth	er Sund 3	1 Casing Volume			Shut in test pri	or to pneumo		npleted, <u>7</u>	in, H <sub>2</sub> O helc	for 20 seconds.
Surface Thickn (i.e., asphalt o		ind	ches/centime	eters 🔲 Unk		Sub-slab <0.1 L il gas probe 2.4:	<b>5</b> //\		6 Start of Pneur	4				
4 Initial Vacu		pumping)	0.0	in. H <sub>2</sub> O	30	ili gas probe Z	<u>s(L)</u>		Elapsed Ti (min.)	me	Flow	mp Rate PM)		Vell Head Vacuum in. H <sub>2</sub> O
7 Field tubing	a blank read	dina (ppm.)	completed?	☐Yes ☒N	o PID Reading	gppm <sub>v</sub>		į	17			T 0,2		Ò
						5		╬	12			.2 ය ් .7	1,	
8 Shut in test	prior to pur	ging compl	eted? Yes [	₹ No □										
Purging Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH <sub>.</sub> (%)		CO <sub>2</sub> (%)	O <sub>2</sub> (%)	Shrou	Tracer Gas ud (%) Max	Sample (ppm <sub>v</sub> , %)	VOCs by PID (ppm <sub>v</sub> )
	1000	1013	12.6	2.5	O-2	2,5	,	_			7.55	34.5	(circle one	0.3
	1017		12.6.	2.5	0.2	5					12,9	35.0	5	0.4
	1036	1049	12.6	2.5	0.2	7.5	_	_			13.3	<del></del>	0	0,2
	, = 0	07.			0,2							- 3.0		
	ncentration ? 🛛 Yes [		ened sample	es is less than 59		concentration in elium = 10,000 ppm <sub>v</sub>	(1)	<b>)</b> s	Shut in test prior to	o sample col	ection com	ipleted? Yes	Mo 🗆	
(12) Sample Co	ollection													
Date	Time	Ktor		Sample ID		Summa Canister	rID	Flo	ow Controller #	Vacuum G	auge #	Initial Vacu (in. Hg		inal Vacuum (in. Hg)
8/30/16	1054	165 5V	-01-5-	083016		1631/40	369		Δ7(	NA	Ž	-26.0°	7 .	-4.73 5.43
8/30/16	1054	1659 SV	-01-5-	082016-	DUP	B2625/401	032	1	1493	NA	-	-26.1	6 -	5.43
						<u> </u>				<u> </u>				
Comments:	Sa	mple"	T" #	49										

# APPENDIX E SURVEY DATA



GLOBAL_ID FIELD_PT_NAI	ME FIELD_PT_CLASS	XY_SURVEY_DATE I	LATITUDE LONGTITUDE XY_M	ETHOD XY_DATUM XY	_ACC_VAL XY_SURVEY_ORG	GPS_EQUIP_TYPE
GLOBAL_ID MW-10	MW	9/16/2016	36.3013840 -118.0197377 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID MW-11	MW	9/16/2016	36.3076097 -118.0166167 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID MW-12	MW	9/16/2016	36.3074198 -118.0138466 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID MW-13	MW	9/16/2016	36.3058837 -118.0152627 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID MW-14	MW	9/16/2016	36.3045843 -118.0159273 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID MW-15	MW	9/16/2016	36.3057670 -118.0186235 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID OW-8US	MW	9/16/2016	36.3075790 -118.0136696 RTK	NAD83	1 TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E

GLOBAL_ID FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION ELEV_METHOD	ELEV_DATUM ELEV_AC	C_VAL ELEV_SURVEY_ORG	RISER_HT ELEV_DESC EFF_DATE
GLOBAL_ID MW-10	9/16/2016	3640.44 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.61 NGS Q1380
GLOBAL_ID MW-11	9/16/2016	3603.96 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.88 NGS Q1380
GLOBAL_ID MW-12	9/16/2016	3599.07 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.66 NGS Q1380
GLOBAL_ID MW-13	9/16/2016	3610.61 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.85 NGS Q1380
GLOBAL_ID MW-14	9/16/2016	3620.50 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.58 NGS Q1380
GLOBAL_ID MW-15	9/16/2016	3618.62 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	2.36 NGS Q1380
GLOBAL_ID OW-8US	9/16/2016	3600.26 CGPS	88	2 TRIAD/HOLMES ASSOCIATES	3.77 NGS Q1380

# APPENDIX F WASTE TRANSPORTATION MANIFESTS

# Soil Safe of California, Inc.

12328 Hibiscus Ave Adelanto, CA 92301 (760)246-8001

# Job Summary Report

From: 9/5/2016

To: 9/11/2016

Date	Log#	Truck	Company	Site Name	Net
A4-6380	)				
			9	/9/2016	
9/9/2016	1	AIS	CRY	STAL GEYSER ROXANE, LLC	3.20
			Total tons for Dat	e = 9/9/2016 (1 truck)	3.20
Total tons for	or Approval	Number' = /	A4-6380 (1 truck)		3.20

	Manifest				F CA – Ti dous Soils	731		<b>→</b> Man	ifest# 🔻	
	Date of Shipment:	Responsible for	Payment:	Transport	Truck #:	Facility #:	4	Approval Numl		Load #
	9-09-16	Tra	insporter	56	5-240	A07		463	80	1001
	Generator's Name and Billing	Address:			Generator's Phone	#:				
	Crystal Geyser Roxa	ine, LLC			D					
	1210 US Highway 39	35			Person to Contact					
					FAX#:			Customer Accor	unt Number	
	Olancha, CA 93549									
	Consultant's Name and Billing	g Address:			Consultant's Phor	e #:				
					Person to Contact:					
100000					FAX#:			Customer Accor	unt Number	
	Generation Site (Transport fro	m): (name & address)			Site Phone #:					
	,									
-	Crystal Geyser Roxe 1210 US Highway 39				Person to Contact:					
Generator and/or Consultant	Olancha, CA 93549				FAX#:					
nsu					1717(11.					
3	Designated Facility (Transport	t to): (name & address)		*11-2-2-1	Facility Phone #:					
0 0	Soil Safe				Person to Contact:	)) 862-800	É S			
au	12328 Hibiscus Rd.					Provansal				
a:0	Adelanto, CA 92301	-1700			FAX#:					
						1) 246-8004	4			
T .	Transporter Name and Mailin	g Address:			Transporter's Pho	ne #:				
5	American Integrated	Services Inc			/31/		2	0	ARROPA	0270
9	American Integrated	Services, Inc.			Person to Contact:	0) 522-1168		c	AR00014	8338
5	P.O. Box 92316				Person to Contact:	0) 522-1169	in			
5					Person to Contact: Jenn FAX#:	0) 522-1168	3n	Customer Accor		
ອ	P.O. Box 92316	Moisture Content	Contaminated	by: Approx	Person to Contact: Jenn FAX#: (310	i) 522-1166 ifer Sherme	\$17		unt Number 770490	18
9	P.O. Box 92316  Long Beach, CA 908  Description of Soil  Sand  Organic	Moisture Content  0 - 10%	Gas C Diesel C		Person to Contact: Jenn FAX#: (310	i) 522-1166 ifer Sherme i) 522-0474	to t	Customer Accor	unt Number 770490 Tare Weight	Net Weigh
5	P.O. Box 92316  Long Beach, CA 908  Description of Soil  Sand Organic Other Other	Moisture Content	Gas ( Diesel ( Other (	<u> </u>	Person to Contact: Jenn FAX#: (310	i) 522-1166 ifer Sherme i) 522-0474	to t	Customer Accor	unt Number 770490 Tare Weight	Net Weigh
5	P.O. Box 92316  Long Beach, CA 908  Description of Soil  Sand  Organic	Moisture Content  0 - 10%	Gas Control Gas Co		Person to Contact: Jenn FAX#: (310	i) 522-1166 ifer Sherme i) 522-0474	to t	Customer Accor	unt Number 770490 Tare Weight	Net Weigh
5	P.O. Box 92316  Long Beach, CA 908  Description of Soil  Sand Organic Other Other  Clay Other Other  List any exception to items lists	Moisture Content  0 - 10%	Gas Control Co		Person to Contact: Jenni FAX#: (310 x. Qty: Descri	i) 522-1166 ifer Sherme i) 522-0474	to t	Customer Accor	unt Number 770490 Tare Weight	Net Weigh
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	3/5/19	nerator's Name and Mailin	g Address			Generato	or's Site Address	ss (If different than mailing address)					
		Crystal Carpati I. 1210 US J. Agran Changha CA St	y 305 549										
H		rator's Phone: ansporter 1 Company Nam	e 938-1931					U.S. EPA ID Number					
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	7. Tra	ansporter 2 Company Nam	e						U.S. EPA ID	Number			
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		signated Facility Name and										4	
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			NO OFFICIATION I I	ereby declare that the contents of this	consignment a	are fully an	d accurately desc	ribed abov	e by the proper s	hipping name	and are classified.	packaged.	
	m	narked and labeled/placard	led, and are in all respec	ts in proper condition for transport acc	ording to applic	cable inter	national and natio	nal govern	mental regulation	S.			
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# APPENDIX G LABORATORY REPORTS



# Calscience



# **WORK ORDER NUMBER: 16-08-1807**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Suite 4A

Santa Barbara, CA 93101-2177

At Mouse

Approved for release on 09/06/2016 by:

Stephen Nowak Project Manager

Email your PM )

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name:	CG Roxane / SB0794
Work Order Number:	16-08-1807

1	Work Order Narrative	3
2	Sample Summary	4
3	Detections Summary	5
4	Client Sample Data.  4.1 EPA 6010B/7471A CAC Title 22 Metals (Solid).  4.2 EPA 6010B/7470A CAC Title 22 Metals (Aqueous).  4.3 EPA 6010B/7470A CAC Title 22 Metals (Aqueous).  4.4 EPA 7470A Mercury (Aqueous).  4.5 EPA 7470A Mercury (Aqueous).  4.6 EPA 7471A Mercury (Solid).  4.7 EPA 8260B Volatile Organics (Solid).	10 10 17 23 29 30 31 32
5	Quality Control Sample Data.5.1 MS/MSD.5.2 LCS/LCSD.5.2 LCS/LCSD.	38 38 44
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#### **Work Order Narrative**

Work Order: 16-08-1807 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1807.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



### **Sample Summary**

Client: Geosyntec Consultants

Suite 4A Work Order:
Project Name:

16-08-1807

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name: CG Roxane / SB0794 PO Number:

Date/Time

e/Time 08/25/16 10:15

Received:

Number of 16

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of	Matrix
Campio Identinodilen	Lab Hamber	Consolien Bate and Time	Containers	maci ix
B-01-S-10-160823	16-08-1807-1	08/23/16 07:23	1	Solid
B-01-S-18-160823	16-08-1807-2	08/23/16 07:26	1	Solid
B-01-S-15-160823	16-08-1807-3	08/23/16 07:23	1	Solid
B-01-S-05-160823	16-08-1807-4	08/23/16 07:20	1	Solid
B-02-W-15.5-160823	16-08-1807-5	08/23/16 14:15	2	Aqueous
B-02-W-15.5-160823-DUP	16-08-1807-6	08/23/16 14:15	2	Aqueous
B-02-W-12.25-160823	16-08-1807-7	08/23/16 13:30	2	Aqueous
B-02-W-23-160823	16-08-1807-8	08/23/16 16:00	2	Aqueous
B-02-W-25.5-160823	16-08-1807-9	08/23/16 16:15	2	Aqueous
SS-02-160823	16-08-1807-10	08/23/16 15:45	1	Solid
SS-01-160823	16-08-1807-11	08/23/16 15:30	1	Solid



Client: Geosyntec Consultants

Work Order:

16-08-1807

924 Anacapa Street, Suite 4A

Project Name:

CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received:

08/25/16

Attn: Kevin Coffman Page 1 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
B-01-S-10-160823 (16-08-1807-1)						
Arsenic	1.61		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	23.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.28		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.13		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	3.72		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	1.87		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.809		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	8.68		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.6		1.01	mg/kg	EPA 6010B	EPA 3050B
B-01-S-18-160823 (16-08-1807-2)						
Arsenic	3.62		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	52.9		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.55		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.79		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.36		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	2.53		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.04		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.83		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.4		0.980	mg/kg	EPA 6010B	EPA 3050B
B-01-S-15-160823 (16-08-1807-3)						
Arsenic	23.1		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	65.6		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.353		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.93		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.47		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	11.4		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	7.55		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.05		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	59.6		1.01	mg/kg	EPA 6010B	EPA 3050B

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order: 16-08-1807

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

08/25/16

Santa Barbara, CA 93101-2177 Received:

Attn: Kevin Coffman Page 2 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
B-01-S-05-160823 (16-08-1807-4)						
Arsenic	1.34		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	24.0		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.612		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.32		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	4.11		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	2.01		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.773		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	9.19		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.2		1.03	mg/kg	EPA 6010B	EPA 3050B
B-02-W-15.5-160823 (16-08-1807-5)						
Arsenic	0.0391		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0298		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0382		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0255		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0120		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.91		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0135		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.613		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.112		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.89		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0577		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.638		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.660		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.49		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00401		0.000500	mg/L	EPA 7470A	EPA 7470A Total

<sup>\*</sup> MDL is shown



Project Name:

Client: Geosyntec Consultants

Work Order: 16-08-1807

924 Anacapa Street, Suite 4A

CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 08/25/16

Attn: Kevin Coffman Page 3 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
B-02-W-15.5-160823-DUP (16-08-1807-6)						
Antimony	0.0209		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0455		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0301		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0448		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0432		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0177		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.142		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.83		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.589		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.102		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.85		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.204		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0502		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.598		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.606		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.35		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00396		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-12.25-160823 (16-08-1807-7)						
Arsenic	0.363		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.308		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0665		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0146		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.402		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.713		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0480		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.201		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.191		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.0539		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.456		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.649		0.0100	mg/L	EPA 6010B	EPA 3010A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-08-1807

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 08/25/16

Attn: Kevin Coffman Page 4 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
B-02-W-23-160823 (16-08-1807-8)						
Arsenic	0.0133		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0107		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0509		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.06		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.242		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0476		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.576		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.0460		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0308		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.117		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.495		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00107		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-25.5-160823 (16-08-1807-9)						
Antimony	0.0412		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.119		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0241		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0873		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0223		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0126		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.171		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.50		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cadmium	0.0151		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.281		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.161		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0265		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.148		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.325		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.517		0.0100	mg/L	EPA 6010B	EPA 3010A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Kevin Coffman

Attn:

Work Order:

16-08-1807

08/25/16

924 Anacapa Street, Suite 4A

Project Name:

CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received:

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Client SampleID						
<u>Analyte</u>	<u>Result</u>	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
SS 02 460922 (46 09 4907 40)						
SS-02-160823 (16-08-1807-10)						
Arsenic	22.7		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	69.9		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.270		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.31		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.57		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.52		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.45		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.38		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.6		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.1		1.04	mg/kg	EPA 6010B	EPA 3050B
SS-01-160823 (16-08-1807-11)						
Antimony	1.84		0.781	mg/kg	EPA 6010B	EPA 3050B
Arsenic	29.0		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	53.0		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.10		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.48		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	9.18		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	4.59		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.74		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.15		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		1.04	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3050B EPA 6010B

08/25/16

mg/kg Page 1 of 7

Project: CG Roxane / SB0794

Date/Time QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	16-08-1807-1-A	08/23/16 07:23	Solid	ICP 8300	08/29/16	08/31/16 14:32	160829L02
<u>Parameter</u>		<u>Result</u>	<u> </u>	<u> </u>	<u>DF</u>	Qua	<u>alifiers</u>
Antimony		ND	(	0.754	1.01		
Arsenic		1.61	(	0.754	1.01		
Barium		23.7	(	0.503	1.01		
Beryllium		ND	(	0.251	1.01		
Cadmium		ND	(	0.503	1.01		
Chromium		1.28	(	0.251	1.01		
Cobalt		2.13	(	0.251	1.01		
Copper		3.72	(	0.503	1.01		
Lead		1.87	(	0.503	1.01		
Molybdenum		ND	(	0.251	1.01		
Nickel		0.809	(	0.251	1.01		
Selenium		ND	(	0.754	1.01		
Silver		ND	(	0.251	1.01		
Thallium		ND	(	0.754	1.01		
Vanadium		8.68	(	0.251	1.01		
Zinc		29.6	1	1.01	1.01		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3050B EPA 6010B

08/25/16

mg/kg

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	16-08-1807-2-A	08/23/16 07:26	Solid	ICP 8300	08/29/16	08/31/16 14:37	160829L02
Parameter		<u>Result</u>	<u> </u>	<u>RL</u>	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	(	).735	0.980		
Arsenic		3.62	(	).735	0.980		
Barium		52.9	(	).490	0.980		
Beryllium		ND	(	).245	0.980		
Cadmium		ND	(	).490	0.980		
Chromium		8.55	(	).245	0.980		
Cobalt		2.79	(	).245	0.980		
Copper		6.36	(	0.490	0.980		
Lead		2.53	(	0.490	0.980		
Molybdenum		1.04	(	).245	0.980		
Nickel		1.83	(	).245	0.980		
Selenium		ND	(	).735	0.980		
Silver		ND	(	).245	0.980		
Thallium		ND	(	).735	0.980		
Vanadium		11.0	(	0.245	0.980		
Zinc		38.4	(	0.980	0.980		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3050B EPA 6010B

08/25/16

mg/kg Page 3 of 7

Project: CG Roxane / SB0794

005.11

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-15-160823	16-08-1807-3-A	08/23/16 07:23	Solid	ICP 8300	08/29/16	08/31/16 14:39	160829L02
Parameter		Result	<u> </u>	<u> </u>	<u>DF</u>	<u>Qualifiers</u>	
Antimony		ND	(	).754	1.01		
Arsenic		23.1	(	).754	1.01		
Barium		65.6	(	).503	1.01		
Beryllium		0.353	(	).251	1.01		
Cadmium		ND	(	).503	1.01		
Chromium		1.93	(	).251	1.01		
Cobalt		5.47	(	).251	1.01		
Copper		11.4	(	0.503	1.01		
Lead		7.55	(	0.503	1.01		
Molybdenum		ND	(	).251	1.01		
Nickel		2.05	(	).251	1.01		
Selenium		ND	(	).754	1.01		
Silver		ND	(	).251	1.01		
Thallium		ND	(	).754	1.01		
Vanadium		23.5	(	).251	1.01		
Zinc		59.6		1.01	1.01		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

08/25/16 16-08-1807 **EPA 3050B EPA 6010B** 

mg/kg Page 4 of 7

Project: CG Roxane / SB0794

Lab Sample Number Date/Time Collected Date Prepared Date/Time Analyzed Client Sample Number QC Batch ID Matrix Instrument

Units:

Parameter         Result         RL         DE         Qualifiers           Antimony         ND         0.773         1.03           Arsenic         1.34         0.773         1.03           Barium         24.0         0.515         1.03           Beryllium         ND         0.258         1.03           Cadmium         ND         0.515         1.03           Chromium         0.612         0.258         1.03           Cobalt         2.32         0.258         1.03           Copper         4.11         0.515         1.03           Lead         2.01         0.515         1.03           Molybdenum         ND         0.258         1.03           Nickel         0.773         0.258         1.03           Selenium         ND         0.773         1.03           Silver         ND         0.258         1.03           Thallium         ND         0.773         1.03           Vanadium         9.19         0.258         1.03           7inc         33.2         1.03         1.03	B-01-S-05-160823	16-08-1807-4-A	08/23/16 07:20	Solid	ICP 8300	08/29/16	08/31/16 14:41	160829L02
Arsenic       1.34       0.773       1.03         Barium       24.0       0.515       1.03         Beryllium       ND       0.258       1.03         Cadmium       ND       0.515       1.03         Chromium       0.612       0.258       1.03         Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	<u>Parameter</u>		Result	RL		<u>DF</u>	Qu	alifiers
Barium       24.0       0.515       1.03         Beryllium       ND       0.258       1.03         Cadmium       ND       0.515       1.03         Chromium       0.612       0.258       1.03         Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Antimony		ND	0.77	73	1.03		
Beryllium       ND       0.258       1.03         Cadmium       ND       0.515       1.03         Chromium       0.612       0.258       1.03         Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Arsenic		1.34	0.77	73	1.03		
Cadmium       ND       0.515       1.03         Chromium       0.612       0.258       1.03         Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Barium		24.0	0.51	15	1.03		
Chromium       0.612       0.258       1.03         Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Beryllium		ND	0.25	58	1.03		
Cobalt       2.32       0.258       1.03         Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Cadmium		ND	0.51	15	1.03		
Copper       4.11       0.515       1.03         Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Chromium		0.612	0.25	58	1.03		
Lead       2.01       0.515       1.03         Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Cobalt		2.32	0.25	58	1.03		
Molybdenum       ND       0.258       1.03         Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Copper		4.11	0.51	15	1.03		
Nickel       0.773       0.258       1.03         Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Lead		2.01	0.51	15	1.03		
Selenium       ND       0.773       1.03         Silver       ND       0.258       1.03         Thallium       ND       0.773       1.03         Vanadium       9.19       0.258       1.03	Molybdenum		ND	0.25	58	1.03		
Silver         ND         0.258         1.03           Thallium         ND         0.773         1.03           Vanadium         9.19         0.258         1.03	Nickel		0.773	0.25	58	1.03		
Thallium         ND         0.773         1.03           Vanadium         9.19         0.258         1.03	Selenium		ND	0.77	73	1.03		
Vanadium 9.19 0.258 1.03	Silver		ND	0.25	58	1.03		
	Thallium		ND	0.77	73	1.03		
Zinc 33.2 1.03 1.03	Vanadium		9.19	0.25	58	1.03		
2012 1100 1100	Zinc		33.2	1.03	3	1.03		

RL: Reporting Limit. MDL: Method Detection Limit. DF: Dilution Factor.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 3050B EPA 6010B

08/25/16

mg/kg

Units:

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	ICP 8300	08/29/16	08/31/16 14:42	160829L02
Parameter		Result	<u>F</u>	<u>RL</u>	<u>DF</u>	Qua	lifiers
Antimony		ND	C	).777	1.04		
Arsenic		22.7	C	).777	1.04		
Barium		69.9	C	).518	1.04		
Beryllium		0.270	C	).259	1.04		
Cadmium		ND	C	).518	1.04		
Chromium		1.31	C	0.259	1.04		
Cobalt		2.57	C	).259	1.04		
Copper		8.52	C	).518	1.04		
Lead		ND	C	).518	1.04		
Molybdenum		2.45	C	0.259	1.04		
Nickel		1.38	C	0.259	1.04		
Selenium		ND	C	).777	1.04		
Silver		ND	C	0.259	1.04		
Thallium		ND	C	).777	1.04		
Vanadium		14.6	C	).259	1.04		
Zinc		42.1	1	.04	1.04		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

1.04

1.04

16-08-1807 EPA 3050B EPA 6010B

08/25/16

Units:

mg/kg Page 6 of 7

Project: CG Roxane / SB0794

Zinc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	ICP 8300	08/29/16	08/31/16 14:47	160829L02
Parameter		Result		<u>RL</u>	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		1.84	(	0.781	1.04		
Arsenic		29.0	(	0.781	1.04		
Barium		53.0	(	0.521	1.04		
Beryllium		ND	(	0.260	1.04		
Cadmium		ND	(	0.521	1.04		
Chromium		7.10	(	0.260	1.04		
Cobalt		2.48	(	0.260	1.04		
Copper		9.18	(	0.521	1.04		
Lead		4.59	(	0.521	1.04		
Molybdenum		1.74	(	0.260	1.04		
Nickel		4.15	(	0.260	1.04		
Selenium		ND	(	0.781	1.04		
Silver		ND	(	0.260	1.04		
Thallium		ND	(	0.781	1.04		
Vanadium		29.3	(	0.260	1.04		

26.9



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg

Units:

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-23162	N/A	Solid	ICP 8300	08/29/16	08/31/16 12:57	160829L02
<u>Parameter</u>		Result	E	<u> </u>	<u>DF</u>	Qua	lifiers
Antimony		ND	C	).721	0.962		
Arsenic		ND	C	).721	0.962		
Barium		ND	C	).481	0.962		
Beryllium		ND	C	0.240	0.962		
Cadmium		ND	C	).481	0.962		
Chromium		ND	C	0.240	0.962		
Cobalt		ND	C	0.240	0.962		
Copper		ND	C	).481	0.962		
Lead		ND	C	).481	0.962		
Molybdenum		ND	C	0.240	0.962		
Nickel		ND	C	0.240	0.962		
Selenium		ND	C	).721	0.962		
Silver		ND	C	0.240	0.962		
Thallium		ND	C	).721	0.962		
Vanadium		ND	C	0.240	0.962		
Zinc		ND	C	).962	0.962		





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	16-08-1807-5-A	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 19:33	160829LA5
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.158	0.0	0100	1.00		
Barium		2.91	0.0	0100	1.00		
Beryllium		0.0135	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.613	0.0	0100	1.00		
Cobalt		0.112	0.0	0100	1.00		
Copper		1.89	0.0	0100	1.00		
Lead		0.214	0.0	0100	1.00		
Molybdenum		0.0577	0.0	0100	1.00		
Nickel		0.638	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.660	0.0	0100	1.00		
Zinc		1.49	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	16-08-1807-6-A	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:12	160829LA5
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	)150	1.00		
Arsenic		0.142	0.0	0100	1.00		
Barium		2.83	0.0	0100	1.00		
Beryllium		0.0130	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.589	0.0	0100	1.00		
Cobalt		0.102	0.0	0100	1.00		
Copper		1.85	0.0	0100	1.00		
Lead		0.204	0.0	0100	1.00		
Molybdenum		0.0502	0.0	0100	1.00		
Nickel		0.598	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.606	0.0	0100	1.00		
Zinc		1.35	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	16-08-1807-7-A	08/23/16 13:30	Aqueous	ICP 7300	08/29/16	08/30/16 18:13	160829LA5
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.402	0.0	0100	1.00		
Barium		0.713	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.158	0.0	0100	1.00		
Cobalt		0.0480	0.0	0100	1.00		
Copper		0.201	0.0	0100	1.00		
Lead		0.134	0.0	0100	1.00		
Molybdenum		0.191	0.0	0100	1.00		
Nickel		0.0539	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.456	0.0	0100	1.00		
Zinc		0.649	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	16-08-1807-8-A	08/23/16 16:00	Aqueous	ICP 7300	08/29/16	08/30/16 18:14	160829LA5
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.0316	0.0	0100	1.00		
Barium		1.06	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.242	0.0	0100	1.00		
Cobalt		0.0476	0.0	0100	1.00		
Copper		0.576	0.0	0100	1.00		
Lead		0.0460	0.0	0100	1.00		
Molybdenum		0.0308	0.0	0100	1.00		
Nickel		0.117	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.214	0.0	0100	1.00		
Zinc		0.495	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	16-08-1807-9-A	08/23/16 16:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:15	160829LA5
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	0150	1.00		
Arsenic		0.171	0.0	0100	1.00		
Barium		1.50	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		0.0151	0.0	0100	1.00		
Chromium		0.281	0.0	0100	1.00		
Cobalt		0.0316	0.0	0100	1.00		
Copper		0.130	0.0	0100	1.00		
Lead		0.161	0.0	0100	1.00		
Molybdenum		0.0265	0.0	0100	1.00		
Nickel		0.148	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.325	0.0	0100	1.00		
Zinc		0.517	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15996	N/A	Aqueous	ICP 7300	08/29/16	08/30/16 18:39	160829LA5
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	150	1.00		
Arsenic		ND	0.0	100	1.00		
Barium		ND	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		ND	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	150	1.00		
Vanadium		ND	0.0	100	1.00		
Zinc		ND	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
	Number	Collected			Prepared	Analyzed	
B-02-W-15.5-160823	16-08-1807-5-B	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:17	160829LA5A
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	0150	1.00		
Arsenic		0.0391	0.0	0100	1.00		
Barium		0.0298	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0382	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.0255	0.0	0100	1.00		
Zinc		0.0120	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	16-08-1807-6-B	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:18	160829LA5A
Parameter		Result	RL	=	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		0.0209	0.0	0150	1.00		
Arsenic		0.0455	0.0	0100	1.00		
Barium		0.0301	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0448	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		0.0432	0.0	0100	1.00		
Zinc		0.0177	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	16-08-1807-7-B	08/23/16 13:30	Aqueous	ICP 7300	08/29/16	08/30/16 18:19	160829LA5A
Parameter		Result	RL	•	<u>DF</u>	Qual	ifiers
Antimony		ND	0.0	)150	1.00		
Arsenic		0.363	0.0	0100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.308	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.0665	0.0	0100	1.00		
Zinc		0.0146	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	16-08-1807-8-B	08/23/16 16:00	Aqueous	ICP 7300	08/29/16	08/30/16 18:20	160829LA5A
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	)150	1.00		
Arsenic		0.0133	0.0	0100	1.00		
Barium		0.0107	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0509	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	16-08-1807-9-B	08/23/16 16:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:21	160829LA5A
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.0412	0.0	)150	1.00		
Arsenic		0.119	0.0	0100	1.00		
Barium		0.0241	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0873	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.0223	0.0	0100	1.00		
Zinc		0.0126	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15997	N/A	Aqueous	ICP 7300	08/29/16	08/30/16 18:39	160829LA5A
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	150	1.00		
Arsenic		ND	0.0	100	1.00		
Barium		ND	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		ND	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	0500	1.00		
Thallium		ND	0.0	150	1.00		
Vanadium		ND	0.0	100	1.00		
Zinc		ND	0.0	100	1.00		



Geosyntec Consultants			Date Recei	ved:			08/25/16	
924 Anacapa Street, Suite 4A			Work Orde				16-08-1807	
Santa Barbara, CA 93101-2177			Preparation			FP	A 7470A Total	
Santa Barbara, C/1 30101 2177			Method:			EPA 7470A		
			Units:				mg/L	
Project: CG Roxane / SB0794			Offics.			Pa	age 1 of 1	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
B-02-W-15.5-160823	16-08-1807-5-A	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/30/16 16:13	160829LA1	
Parameter		Result	<u>RL</u>		<u>DF</u>	Qu	alifiers	
Mercury		0.00401	0.0	000500	1.00			
B-02-W-15.5-160823-DUP	16-08-1807-6-A	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:17	160829LA1	
Parameter		Result	<u>RL</u> <u>DF</u>		<u>DF</u>	Qualifiers		
Mercury		0.00396	0.0	000500	1.00			
B-02-W-12.25-160823	16-08-1807-7-A	08/23/16 13:30	Aqueous	Mercury 04	08/29/16	08/29/16 21:19	160829LA1	
<u>Parameter</u>		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		ND	0.0	000500	1.00			
B-02-W-23-160823	16-08-1807-8-A	08/23/16 16:00	Aqueous	Mercury 04	08/29/16	08/29/16 21:21	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		0.00107	0.0	000500	1.00			
B-02-W-25.5-160823	16-08-1807-9-A	08/23/16 16:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:24	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		ND	0.0	000500	1.00			
Method Blank	099-04-008-7962	N/A	Aqueous	Mercury 04	08/29/16	08/29/16 20:50	160829LA1	
Parameter		Result	RL	=	<u>DF</u>	Qu	alifiers	
Mercury		ND	0.0	000500	1.00			

08/25/16



Geosyntec Consultants

# **Analytical Report**

Date Received:

Cocymod Comeditante							
924 Anacapa Street, Suite 4A			Work Orde	r:			16-08-1807
Santa Barbara, CA 93101-2177			Preparation	n:		E	PA 7470A Filt.
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	age 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	16-08-1807-5-B	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:01	160829LA1F
Parameter		Result	RL	:	<u>DF</u>	Qu	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
B-02-W-15.5-160823-DUP	16-08-1807-6-B	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 20:55	160829LA1F
Parameter		Result	RL	•	<u>DF</u>	Qu	alifiers
Mercury		ND	0.0	000500	1.00		
B-02-W-12.25-160823	16-08-1807-7-B	08/23/16 13:30	Aqueous	Mercury 04	08/29/16	08/29/16 21:04	160829LA1F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qu	alifiers
Mercury		ND	0.0	000500	1.00		
B-02-W-23-160823	16-08-1807-8-B	08/23/16 16:00	Aqueous	Mercury 04	08/29/16	08/29/16 21:06	160829LA1F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qu	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
B-02-W-25.5-160823	16-08-1807-9-B	08/23/16 16:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:08	160829LA1F
Parameter		Result	RL		DF	Qu	alifiers
Mercury		ND	0.0	000500	1.00		
Method Blank	099-15-763-815	N/A	Aqueous	Mercury 04	08/29/16	08/29/16 20:50	160829LA1F
Parameter		Result	RL	:	<u>DF</u>	Qu	alifiers
Mercury		ND	0.0	00500	1.00		

08/25/16



Geosyntec Consultants

# **Analytical Report**

Date Received:

Goody need Consultants			<b>D</b> ato	, , , , , , , , , , , , , , , , , , ,			00/20/10
924 Anacapa Street, Suite 4A			Work O	rder:			16-08-1807
Santa Barbara, CA 93101-2177			Prepara	ation:		EP	A 7471A Total
			Method				EPA 7471A
			Units:				mg/kg
Project: CG Roxane / SB0794			·			Pa	ige 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	16-08-1807-1-A	08/23/16 07:23	Solid	Mercury 04	08/30/16	08/30/16 18:49	160830L01
Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0877	1.00		
B-01-S-18-160823	16-08-1807-2-A	08/23/16 07:26	Solid	Mercury 04	08/30/16	08/30/16 18:52	160830L01
Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0794	1.00		
B-01-S-15-160823	16-08-1807-3-A	08/23/16 07:23	Solid	Mercury 04	08/30/16	08/30/16 18:54	160830L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0794	1.00		
B-01-S-05-160823	16-08-1807-4-A	08/23/16 07:20	Solid	Mercury 04	08/30/16	08/30/16 18:56	160830L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0794	1.00		
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	Mercury 04	08/30/16	08/30/16 19:16	160830L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0820	1.00		
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	Mercury 04	08/30/16	08/30/16 19:18	160830L01
Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0820	1.00		
Method Blank	099-16-272-2474	N/A	Solid	Mercury 04	08/30/16	08/30/16 13:13	160830L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0877	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 5030C EPA 8260B

08/25/16

ug/kg

Project: CG Roxane / SB0794

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	GC/MS Q	08/29/16	08/30/16 11:34	160830L005
<u>Parameter</u>		Result	<u>R</u>	<u>L</u>	<u>DF</u>	Qua	alifiers
Acetone		ND	13	30	1.00		
Benzene		ND	5.	1	1.00		
Bromobenzene		ND	5.	1	1.00		
Bromochloromethane		ND	5.	1	1.00		
Bromodichloromethane		ND	5.	1	1.00		
Bromoform		ND	5.	1	1.00		
Bromomethane		ND	25	5	1.00		
2-Butanone		ND	5′	1	1.00		
n-Butylbenzene		ND	5.	1	1.00		
sec-Butylbenzene		ND	5.	1	1.00		
tert-Butylbenzene		ND	5.	1	1.00		
Carbon Disulfide		ND	5′	1	1.00		
Carbon Tetrachloride		ND	5.	1	1.00		
Chlorobenzene		ND	5.	1	1.00		
Chloroethane		ND	5.	1	1.00		
Chloroform		ND	5.	1	1.00		
Chloromethane		ND	25	5	1.00		
2-Chlorotoluene		ND	5.	1	1.00		
4-Chlorotoluene		ND	5.	1	1.00		
Dibromochloromethane		ND	5.	1	1.00		
1,2-Dibromo-3-Chloropropane		ND	10	)	1.00		
1,2-Dibromoethane		ND	5.	1	1.00		
Dibromomethane		ND	5.	1	1.00		
1,2-Dichlorobenzene		ND	5.	1	1.00		
1,3-Dichlorobenzene		ND	5.		1.00		
1,4-Dichlorobenzene		ND	5.	1	1.00		
Dichlorodifluoromethane		ND	5.	1	1.00		
1,1-Dichloroethane		ND	5.	1	1.00		
1,2-Dichloroethane		ND	5.	1	1.00		
1,1-Dichloroethene		ND	5.	1	1.00		
c-1,2-Dichloroethene		ND	5.	1	1.00		
t-1,2-Dichloroethene		ND	5.		1.00		
1,2-Dichloropropane		ND	5.	1	1.00		
1,3-Dichloropropane							
		ND	5.	1	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 2 of 6

Project: CG Roxane / SB0794				Page 2 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	86	60-132		
Dibromofluoromethane	94	63-141		
1,2-Dichloroethane-d4	103	62-146		
Toluene-d8	95	70-130		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 5030C EPA 8260B

08/25/16

Units:

ug/kg Page 3 of 6

Project: CG Roxane / SB0794

Γime QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	GC/MS Q	08/29/16	08/30/16 14:01	160830L005
<u>Parameter</u>		Result	<u>R</u>	<u>RL</u>	<u>DF</u>	Qua	alifiers
Acetone		ND	1	20	1.00		
Benzene		ND	5	.0	1.00		
Bromobenzene		ND	5	.0	1.00		
Bromochloromethane		ND	5	.0	1.00		
Bromodichloromethane		ND	5	.0	1.00		
Bromoform		ND	5	.0	1.00		
Bromomethane		ND	2	5	1.00		
2-Butanone		ND	5	0	1.00		
n-Butylbenzene		ND	5	.0	1.00		
sec-Butylbenzene		ND	5	.0	1.00		
tert-Butylbenzene		ND	5	.0	1.00		
Carbon Disulfide		ND	5	0	1.00		
Carbon Tetrachloride		ND	5	.0	1.00		
Chlorobenzene		ND	5	.0	1.00		
Chloroethane		ND	5	.0	1.00		
Chloroform		ND	5	.0	1.00		
Chloromethane		ND	2	5	1.00		
2-Chlorotoluene		ND	5	.0	1.00		
4-Chlorotoluene		ND	5	.0	1.00		
Dibromochloromethane		ND	5	.0	1.00		
1,2-Dibromo-3-Chloropropane		ND	1	0	1.00		
1,2-Dibromoethane		ND	5	.0	1.00		
Dibromomethane		ND	5	.0	1.00		
1,2-Dichlorobenzene		ND	5	.0	1.00		
1,3-Dichlorobenzene		ND	5	.0	1.00		
1,4-Dichlorobenzene		ND	5	.0	1.00		
Dichlorodifluoromethane		ND	5	.0	1.00		
1,1-Dichloroethane		ND	5	.0	1.00		
1,2-Dichloroethane		ND	5	.0	1.00		
1,1-Dichloroethene		ND	5	.0	1.00		
c-1,2-Dichloroethene		ND	5	.0	1.00		
t-1,2-Dichloroethene		ND	5	.0	1.00		
1,2-Dichloropropane		ND	5	.0	1.00		
1,3-Dichloropropane		ND	5	.0	1.00		
2,2-Dichloropropane		ND	5	.0	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 4 of 6

Project: CG Roxane / SB0794				Page 4 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	94	60-132		
Dibromofluoromethane	111	63-141		
1,2-Dichloroethane-d4	115	62-146		
Toluene-d8	100	70-130		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-08-1807 **EPA 5030C EPA 8260B** 

08/25/16

Units:

ug/kg

Project: CG Roxane / SB0794

Page 5 of 6 Date/Time Collected Date/Time Lab Sample Date Prepared QC Batch ID Client Sample Number Matrix Instrument Number Analyzed 08/30/16 10:41 **Method Blank** 099-14-314-623 N/A Solid GC/MS Q 08/30/16 160830L005 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 120 1.00 Acetone ND Benzene 5.0 1.00 ND Bromobenzene 5.0 1.00 Bromochloromethane ND 5.0 1.00 Bromodichloromethane ND 5.0 1.00 **Bromoform** ND 5.0 1.00 **Bromomethane** ND 25 1.00 2-Butanone ND 50 1.00 n-Butylbenzene ND 5.0 1.00 sec-Butylbenzene ND 5.0 1.00 tert-Butylbenzene ND 5.0 1.00 Carbon Disulfide ND 50 1.00 Carbon Tetrachloride ND 5.0 1.00 Chlorobenzene ND 5.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 5.0 1.00 Chloromethane ND 25 1.00 2-Chlorotoluene ND 5.0 1.00 4-Chlorotoluene ND 5.0 1.00 Dibromochloromethane ND 5.0 1.00 1,2-Dibromo-3-Chloropropane ND 10 1.00 1,2-Dibromoethane ND 5.0 1.00 Dibromomethane ND 5.0 1.00 1,2-Dichlorobenzene ND 5.0 1.00 1,3-Dichlorobenzene ND 5.0 1.00 1,4-Dichlorobenzene ND 5.0 1.00 Dichlorodifluoromethane ND 5.0 1.00 1,1-Dichloroethane ND 5.0 1.00 ND 5.0 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 5.0 1.00 c-1,2-Dichloroethene ND 5.0 1.00

RL: Reporting Limit.

t-1,2-Dichloroethene

1,2-Dichloropropane 1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

5.0

5.0

5.0

5.0

1.00

1.00

1.00

1.00

ND

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 6 of 6

Project: CG Roxane / SB0794				Page 6 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	92	60-132		
Dibromofluoromethane	88	63-141		
1,2-Dichloroethane-d4	94	62-146		
Toluene-d8	96	70-130		



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Method: EPA 6010B

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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	d Date Ana	lyzed	MS/MSD Ba	tch Number
B-01-S-10-160823	Sample		Solid	ICP	8300	08/29/16	08/31/16	14:32	160829S02	
B-01-S-10-160823	Matrix Spike		Solid	ICP	8300	08/29/16	08/31/16	14:34	160829S02	
B-01-S-10-160823	Matrix Spike	Duplicate	Solid	ICP	8300	08/29/16	08/31/16	14:36	160829S02	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	17.75	71	17.84	71	50-115	0	0-20	
Arsenic	1.611	25.00	27.38	103	25.97	97	75-125	5	0-20	
Barium	23.65	25.00	50.75	108	47.90	97	75-125	6	0-20	
Beryllium	ND	25.00	24.75	99	24.14	97	75-125	3	0-20	
Cadmium	ND	25.00	26.01	104	25.10	100	75-125	4	0-20	
Chromium	1.277	25.00	27.91	107	27.00	103	75-125	3	0-20	
Cobalt	2.128	25.00	28.08	104	27.13	100	75-125	3	0-20	
Copper	3.719	25.00	30.46	107	29.67	104	75-125	3	0-20	
Lead	1.873	25.00	26.95	100	26.10	97	75-125	3	0-20	
Molybdenum	ND	25.00	25.44	102	24.74	99	75-125	3	0-20	
Nickel	0.8091	25.00	25.77	100	24.90	96	75-125	3	0-20	
Selenium	ND	25.00	25.32	101	24.49	98	75-125	3	0-20	
Silver	ND	12.50	13.21	106	12.86	103	75-125	3	0-20	
Thallium	ND	25.00	23.79	95	23.44	94	75-125	1	0-20	
Vanadium	8.679	25.00	34.54	103	33.87	101	75-125	2	0-20	
Zinc	29.56	25.00	52.59	92	50.88	85	75-125	3	0-20	



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Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepare	d Date Ana	lyzed	MS/MSD Ba	ch Number
B-02-W-15.5-160823	Sample		Aqueou	s IC	P 7300	08/29/16	08/30/16	18:17	160829SA5	4
B-02-W-15.5-160823	Matrix Spike		Aqueou	s IC	P 7300	08/29/16	08/30/16	18:41	160829SA5	4
B-02-W-15.5-160823	Matrix Spike	Duplicate	Aqueou	s IC	P 7300	08/29/16	08/30/16	18:58	160829SA5	4
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4733	95	0.4714	94	72-132	0	0-10	
Arsenic	0.03909	0.5000	0.5305	98	0.5257	97	80-140	1	0-11	
Barium	0.02977	0.5000	0.5329	101	0.5361	101	87-123	1	0-6	
Beryllium	ND	0.5000	0.4819	96	0.4833	97	89-119	0	0-8	
Cadmium	ND	0.5000	0.4794	96	0.4815	96	82-124	0	0-7	
Chromium	ND	0.5000	0.4738	95	0.4744	95	86-122	0	0-8	
Cobalt	ND	0.5000	0.4891	98	0.4936	99	83-125	1	0-7	
Copper	ND	0.5000	0.4927	99	0.4936	99	78-126	0	0-7	
Lead	ND	0.5000	0.4732	95	0.4721	94	84-120	0	0-7	
Molybdenum	0.03819	0.5000	0.5119	95	0.5055	93	78-126	1	0-7	
Nickel	ND	0.5000	0.4921	98	0.4930	99	84-120	0	0-7	
Selenium	ND	0.5000	0.4735	95	0.4544	91	79-127	4	0-9	
Silver	ND	0.2500	0.2426	97	0.2443	98	86-128	1	0-7	
Thallium	ND	0.5000	0.4940	99	0.4877	98	79-121	1	0-8	
Vanadium	0.02552	0.5000	0.4966	94	0.4951	94	88-118	0	0-7	
Zinc	0.01203	0.5000	0.5232	102	0.5253	103	89-131	0	0-8	

RPD: Relative Percent Difference. CL: Control Limits



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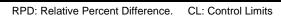
 924 Anacapa Street, Suite 4A
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 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

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Quality Control Sample ID	Type		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
B-02-W-15.5-160823-DUP	Sample		Aqueous	Me	rcury 04	08/29/16	08/29/16	20:55	160829SA1	
B-02-W-15.5-160823-DUP	Matrix Spike		Aqueous	. Me	rcury 04	08/29/16	08/29/16	20:57	160829SA1	
B-02-W-15.5-160823-DUP	Matrix Spike	Duplicate	Aqueous	Me	rcury 04	08/29/16	08/29/16	20:59	160829SA1	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01174	117	0.009458	95	55-133	22	0-20	4



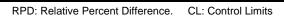


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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-08-1766-1	Sample		Solid	Mer	cury 04	08/30/16	08/30/16	13:22	160830S01	
16-08-1766-1	Matrix Spike		Solid	Mer	cury 04	08/30/16	08/30/16	13:17	160830S01	
16-08-1766-1	Matrix Spike D	Duplicate	Solid	Mer	cury 04	08/30/16	08/30/16	13:20	160830S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7891	95	0.7573	91	71-137	4	0-14	





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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepa	red Date Ana	lyzed	MS/MSD Ba	tch Number
SS-02-160823	Sample		Solid	GC	MS Q	08/29/16	08/30/16	11:34	160830S003	•
SS-02-160823	Matrix Spike		Solid	GC	MS Q	08/29/16	08/30/16	12:03	160830S003	1
SS-02-160823	Matrix Spike	Duplicate	Solid	GC	MS Q	08/29/16	08/30/16	12:29	1608308003	<b>,</b>
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	82.94	166	134.7	269	70-130	48	0-20	3,4
Benzene	ND	50.00	38.81	78	36.58	73	61-127	6	0-20	
Bromobenzene	ND	50.00	36.88	74	34.10	68	70-130	8	0-20	3
Bromochloromethane	ND	50.00	40.57	81	37.89	76	70-130	7	0-20	
Bromodichloromethane	ND	50.00	38.39	77	35.09	70	70-130	9	0-20	
Bromoform	ND	50.00	39.91	80	35.62	71	70-130	11	0-20	
Bromomethane	ND	50.00	40.65	81	38.57	77	70-130	5	0-20	
2-Butanone	ND	50.00	47.42	95	44.64	89	70-130	6	0-20	
n-Butylbenzene	ND	50.00	36.54	73	35.37	71	77-123	3	0-25	3
sec-Butylbenzene	ND	50.00	38.45	77	37.77	76	70-130	2	0-20	
tert-Butylbenzene	ND	50.00	40.40	81	37.85	76	70-130	7	0-20	
Carbon Disulfide	ND	50.00	42.98	86	40.87	82	70-130	5	0-20	
Carbon Tetrachloride	ND	50.00	38.90	78	38.16	76	51-135	2	0-29	
Chlorobenzene	ND	50.00	38.52	77	35.24	70	57-123	9	0-20	
Chloroethane	ND	50.00	45.33	91	41.11	82	70-130	10	0-20	
Chloroform	ND	50.00	37.60	75	35.01	70	70-130	7	0-20	
Chloromethane	ND	50.00	44.61	89	41.07	82	70-130	8	0-20	
2-Chlorotoluene	ND	50.00	37.80	76	35.28	71	70-130	7	0-20	
4-Chlorotoluene	ND	50.00	37.94	76	34.47	69	70-130	10	0-20	3
Dibromochloromethane	ND	50.00	39.50	79	35.85	72	70-130	10	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	42.32	85	39.54	79	70-130	7	0-20	
1,2-Dibromoethane	ND	50.00	42.77	86	38.09	76	64-124	12	0-20	
Dibromomethane	ND	50.00	41.05	82	36.67	73	70-130	11	0-20	
1,2-Dichlorobenzene	ND	50.00	33.12	66	29.82	60	35-131	10	0-25	
1,3-Dichlorobenzene	ND	50.00	34.74	69	31.13	62	70-130	11	0-20	3
1,4-Dichlorobenzene	ND	50.00	32.40	65	29.50	59	70-130	9	0-20	3
Dichlorodifluoromethane	ND	50.00	49.21	98	45.00	90	70-130	9	0-20	
1,1-Dichloroethane	ND	50.00	39.48	79	37.60	75	70-130	5	0-20	
1,2-Dichloroethane	ND	50.00	37.45	75	34.11	68	70-130	9	0-20	3
1,1-Dichloroethene	ND	50.00	41.72	83	40.05	80	47-143	4	0-25	
c-1,2-Dichloroethene	ND	50.00	38.22	76	36.51	73	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	43.29	87	40.68	81	70-130	6	0-20	
1,2-Dichloropropane	ND	50.00	40.07	80	37.55	75	79-115	6	0-25	3
1,3-Dichloropropane	ND	50.00	40.27	81	37.53	75	70-130	7	0-20	
2,2-Dichloropropane	ND	50.00	39.55	79	37.78	76	70-130	5	0-20	



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<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	40.54	81	39.87	80	70-130	2	0-20	
c-1,3-Dichloropropene	ND	50.00	40.51	81	36.73	73	70-130	10	0-20	
t-1,3-Dichloropropene	ND	50.00	39.89	80	35.11	70	70-130	13	0-20	
Ethylbenzene	ND	50.00	41.17	82	39.48	79	57-129	4	0-22	
2-Hexanone	ND	50.00	50.06	100	45.69	91	70-130	9	0-20	
Isopropylbenzene	ND	50.00	41.92	84	40.65	81	70-130	3	0-20	
p-Isopropyltoluene	ND	50.00	38.89	78	37.85	76	70-130	3	0-20	
Methylene Chloride	ND	50.00	39.90	80	36.93	74	70-130	8	0-20	
4-Methyl-2-Pentanone	ND	50.00	54.17	108	51.07	102	70-130	6	0-20	
Naphthalene	ND	50.00	26.51	53	22.11	44	70-130	18	0-20	3
n-Propylbenzene	ND	50.00	39.03	78	37.47	75	70-130	4	0-20	
Styrene	ND	50.00	39.07	78	35.72	71	70-130	9	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	42.11	84	39.07	78	70-130	7	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	41.71	83	38.95	78	70-130	7	0-20	
Tetrachloroethene	ND	50.00	42.42	85	41.74	83	70-130	2	0-20	
Toluene	ND	50.00	42.46	85	40.15	80	63-123	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	25.67	51	21.57	43	70-130	17	0-20	3
1,2,4-Trichlorobenzene	ND	50.00	28.36	57	23.90	48	70-130	17	0-20	3
1,1,1-Trichloroethane	ND	50.00	39.58	79	38.14	76	70-130	4	0-20	
1,1,2-Trichloroethane	ND	50.00	40.69	81	36.79	74	70-130	10	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	43.08	86	42.26	85	70-130	2	0-20	
Trichloroethene	ND	50.00	42.66	85	40.90	82	44-158	4	0-20	
1,2,3-Trichloropropane	ND	50.00	41.91	84	37.20	74	70-130	12	0-20	
1,2,4-Trimethylbenzene	ND	50.00	38.42	77	35.92	72	70-130	7	0-20	
Trichlorofluoromethane	ND	50.00	43.54	87	39.13	78	70-130	11	0-20	
1,3,5-Trimethylbenzene	ND	50.00	38.81	78	36.71	73	70-130	6	0-20	
Vinyl Acetate	ND	50.00	3.273	7	0.7032	1	70-130	129	0-20	3,4
Vinyl Chloride	ND	50.00	50.36	101	46.91	94	49-139	7	0-47	
p/m-Xylene	ND	100.0	80.16	80	75.67	76	70-130	6	0-20	
o-Xylene	ND	50.00	39.85	80	37.73	75	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.63	87	41.55	83	57-123	5	0-21	





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Quality Control Sample ID	Туре	Matrix	Instrumen	t Date Prepa	red Date Analyz	ed LCS Batch N	lumber
097-01-002-23162	LCS	Solid	ICP 8300	08/29/16	08/31/16 12	:58 160829L02	
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		25.00	24.70	99	80-120	73-127	
Arsenic		25.00	24.80	99	80-120	73-127	
Barium		25.00	25.11	100	80-120	73-127	
Beryllium		25.00	24.20	97	80-120	73-127	
Cadmium		25.00	25.56	102	80-120	73-127	
Chromium		25.00	25.90	104	80-120	73-127	
Cobalt		25.00	25.33	101	80-120	73-127	
Copper		25.00	26.00	104	80-120	73-127	
Lead		25.00	25.40	102	80-120	73-127	
Molybdenum		25.00	25.76	103	80-120	73-127	
Nickel		25.00	24.71	99	80-120	73-127	
Selenium		25.00	25.77	103	80-120	73-127	
Silver		12.50	12.77	102	80-120	73-127	
Thallium		25.00	26.79	107	80-120	73-127	
Vanadium		25.00	25.73	103	80-120	73-127	
Zinc		25.00	25.06	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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Quality Control Sample ID	Type	Matrix	x Instrumer	nt Date Prep	oared Date Ana	lyzed LCS Bate	ch Number
097-01-003-15996	LCS	Aque	ous ICP 7300	08/29/16	08/30/16	18:40 160829L	A5
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.5000	0.4894	98	80-120	73-127	
Arsenic		0.5000	0.4855	97	80-120	73-127	
Barium		0.5000	0.5277	106	80-120	73-127	
Beryllium		0.5000	0.4935	99	80-120	73-127	
Cadmium		0.5000	0.5124	102	80-120	73-127	
Chromium		0.5000	0.5167	103	80-120	73-127	
Cobalt		0.5000	0.5307	106	80-120	73-127	
Copper		0.5000	0.5166	103	80-120	73-127	
Lead		0.5000	0.5176	104	80-120	73-127	
Molybdenum		0.5000	0.4974	99	80-120	73-127	
Nickel		0.5000	0.5362	107	80-120	73-127	
Selenium		0.5000	0.4818	96	80-120	73-127	
Silver		0.2500	0.2525	101	80-120	73-127	
Thallium		0.5000	0.5251	105	80-120	73-127	
Vanadium		0.5000	0.4938	99	80-120	73-127	
Zinc		0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B

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Quality Control Sample ID	Туре	Matrix	x Instrum	ent Date Pre	pared Date Ana	alyzed LCS Bato	ch Number
097-01-003-15997	LCS	Aque	ous ICP 730	0 08/29/16	08/30/16	18:40 160829L	A5A
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.5000	0.4894	98	80-120	73-127	
Arsenic		0.5000	0.4855	97	80-120	73-127	
Barium		0.5000	0.5277	106	80-120	73-127	
Beryllium		0.5000	0.4935	99	80-120	73-127	
Cadmium		0.5000	0.5124	102	80-120	73-127	
Chromium		0.5000	0.5167	103	80-120	73-127	
Cobalt		0.5000	0.5307	106	80-120	73-127	
Copper		0.5000	0.5166	103	80-120	73-127	
Lead		0.5000	0.5176	104	80-120	73-127	
Molybdenum		0.5000	0.4974	99	80-120	73-127	
Nickel		0.5000	0.5362	107	80-120	73-127	
Selenium		0.5000	0.4818	96	80-120	73-127	
Silver		0.2500	0.2525	101	80-120	73-127	
Thallium		0.5000	0.5251	105	80-120	73-127	
Vanadium		0.5000	0.4938	99	80-120	73-127	
Zinc		0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



Geosyntec ConsultantsDate Received:08/25/16924 Anacapa Street, Suite 4AWork Order:16-08-1807Santa Barbara, CA 93101-2177Preparation:EPA 7470A TotalMethod:EPA 7470A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7962	LCS	Aqueous	Mercury 04	08/29/16	08/29/16 20:52	160829LA1
<u>Parameter</u>		Spike Added	Conc. Recover	ed LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.009182	92	80-120	)



Geosyntec ConsultantsDate Received:08/25/16924 Anacapa Street, Suite 4AWork Order:16-08-1807Santa Barbara, CA 93101-2177Preparation:EPA 7470A Filt.Method:EPA 7470A

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Quality Control Sample ID	Type	Matrix	Instrument I	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-815	LCS	Aqueous	Mercury 04	08/29/16	08/29/16 20:52	160829LA1F
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.009182	92	80-120	)



Geosyntec ConsultantsDate Received:08/25/16924 Anacapa Street, Suite 4AWork Order:16-08-1807Santa Barbara, CA 93101-2177Preparation:EPA 7471A TotalMethod:EPA 7471A

Project: CG Roxane / SB0794 Page 6 of 8

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2474	LCS	Solid	Mercury 04	08/30/16	08/30/16 13:15	160830L01
<u>Parameter</u>		Spike Added	Conc. Recover	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.8350	0.7200	86	85-12	1



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrumen			ed LCS Batch N	
099-14-314-623	LCS	Solid	GC/MS Q	08/30/16	08/30/16 09:	:34 160830L005	
<u>Parameter</u>		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone		50.00	42.63	85	70-130	60-140	
Benzene		50.00	43.78	88	78-120	71-127	
Bromobenzene		50.00	49.06	98	70-130	60-140	
Bromochloromethane		50.00	44.36	89	70-130	60-140	
Bromodichloromethane		50.00	44.70	89	70-130	60-140	
Bromoform		50.00	45.82	92	70-130	60-140	
Bromomethane		50.00	43.15	86	70-130	60-140	
2-Butanone		50.00	46.50	93	70-130	60-140	
n-Butylbenzene		50.00	47.22	94	77-123	69-131	
sec-Butylbenzene		50.00	47.78	96	70-130	60-140	
tert-Butylbenzene		50.00	47.73	95	70-130	60-140	
Carbon Disulfide		50.00	47.10	94	70-130	60-140	
Carbon Tetrachloride		50.00	42.73	85	49-139	34-154	
Chlorobenzene		50.00	46.23	92	79-120	72-127	
Chloroethane		50.00	46.42	93	70-130	60-140	
Chloroform		50.00	40.80	82	70-130	60-140	
Chloromethane		50.00	44.90	90	70-130	60-140	
2-Chlorotoluene		50.00	48.09	96	70-130	60-140	
4-Chlorotoluene		50.00	46.19	92	70-130	60-140	
Dibromochloromethane		50.00	44.80	90	70-130	60-140	
1,2-Dibromo-3-Chloropropane		50.00	52.24	104	70-130	60-140	
1,2-Dibromoethane		50.00	46.70	93	70-130	60-140	
Dibromomethane		50.00	46.37	93	70-130	60-140	
1,2-Dichlorobenzene		50.00	46.44	93	75-120	68-128	
1,3-Dichlorobenzene		50.00	46.90	94	70-130	60-140	
1,4-Dichlorobenzene		50.00	45.54	91	70-130	60-140	
Dichlorodifluoromethane		50.00	48.99	98	70-130	60-140	
1,1-Dichloroethane		50.00	43.45	87	70-130	60-140	
1,2-Dichloroethane		50.00	41.38	83	70-130	60-140	
1,1-Dichloroethene		50.00	44.62	89	74-122	66-130	
c-1,2-Dichloroethene		50.00	43.66	87	70-130	60-140	
-1,2-Dichloroethene		50.00	46.58	93	70-130	60-140	
1,2-Dichloropropane		50.00	45.84	92	79-115	73-121	
1,3-Dichloropropane		50.00	44.48	89	70-130	60-140	
2,2-Dichloropropane		50.00	42.64	85	70-130	60-140	
1,1-Dichloropropene		50.00	43.38	87	70-130	60-140	
c-1,3-Dichloropropene		50.00	48.11	96	70-130	60-140	
t-1,3-Dichloropropene		50.00	46.51	93	70-130	60-140	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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<u>Parameter</u>	Spike Added	Conc. Recovere	d LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Ethylbenzene	50.00	47.80	96	76-120	69-127	
2-Hexanone	50.00	54.09	108	70-130	60-140	
Isopropylbenzene	50.00	50.39	101	70-130	60-140	
p-Isopropyltoluene	50.00	48.27	97	70-130	60-140	
Methylene Chloride	50.00	41.72	83	70-130	60-140	
4-Methyl-2-Pentanone	50.00	55.87	112	70-130	60-140	
Naphthalene	50.00	48.25	97	70-130	60-140	
n-Propylbenzene	50.00	48.23	96	70-130	60-140	
Styrene	50.00	50.02	100	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	45.20	90	70-130	60-140	
Tetrachloroethene	50.00	46.99	94	70-130	60-140	
Toluene	50.00	49.40	99	77-120	70-127	
1,2,3-Trichlorobenzene	50.00	48.14	96	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.22	100	70-130	60-140	
1,1,1-Trichloroethane	50.00	42.36	85	70-130	60-140	
1,1,2-Trichloroethane	50.00	44.23	88	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.87	94	70-130	60-140	
Trichloroethene	50.00	48.02	96	70-130	60-140	
1,2,3-Trichloropropane	50.00	48.04	96	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	47.56	95	70-130	60-140	
Trichlorofluoromethane	50.00	43.34	87	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	48.33	97	70-130	60-140	
Vinyl Acetate	50.00	15.98	32	70-130	60-140	X
Vinyl Chloride	50.00	50.31	101	68-122	59-131	
p/m-Xylene	100.0	95.05	95	70-130	60-140	
o-Xylene	50.00	47.97	96	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	45.33	91	77-120	70-127	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



# **Sample Analysis Summary Report**

Work Order: 16-08-1807				Page 1 of 1
<u>Method</u>	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 7471A	EPA 7471A Total	776	Mercury 04	1
EPA 8260B	EPA 5030C	1055	GC/MS Q	2

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



SG

# **Glossary of Terms and Qualifiers**

Work Order: 16-08-1807 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

X % Recovery and/or RPD out-of-range.

The sample extract was subjected to Silica Gel treatment prior to analysis.

- Z Analyte presence was not confirmed by second column or GC/MS analysis.
  - Solid Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience	WO#/LABUSE ONLY DATE:		8-23 4 8-24
440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494	D-CO- DI	ij	/ of
or courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.			
LABORATORY CLIENT:	CLIENT PROJECT NAME / NUMBER:		P.O. NO.:
Geosyntec Consultants	CG Roxane		SB0794
ADDRESS:			
924 Anacapa St. Suite 4A	PROJECT CONTACT:		SAMPLER(S): (PRINT)

**CHAIN OF CUSTODY RECORD** 

2018

Page 54 of 60 100 Time: Kenjo Agustsson 8-24-16 Date: 08,25-16 Date: REQUESTED ANALYSES Please check box or fill in blank as needed でに X S/3/2W Kevin Coffman 77 (Signature/Affiliation) Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) ر د د Field Filtered Spe Preserved 93101 ■ STANDARD X Unpreserved ZIP: 5 NO. OF CONT. N 2 N KCoffman@geosyntec.com 5 3 3 3 MATRIX S ☐ 5 DAYS S 0723 0726 0720 1230 0723 1415 87 1545 46 TIME TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD") ☐ 72 HR SAMPLING \_\_\_1\_\_\_ Cooler(s) with this COC shipped via FedEx 9-52-8 DATE ☐ 48 HR 8-62-W-155-160823-PUP 8-02-W-55.5-1688 B-01-5-15-16083 528091-5.51-m-29-B-01-5-05-160823 B-02-40-12.75-160823 8-02-m-23-160823 B-ci-S-18-160823 8-01-5-10-160823 GLOBAL ID: -02-160823 □ 24 HR SAMPLEID Relinquished by: (Signature) Relinquished by: (Signature) Santa Barbara SPECIAL INSTRUCTIONS: 805-897-3800 COELT EDF ☐ SAME DAY USE ONLY CITY



06/02/14 Revision

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494	2841-1427 • (714) 895-54	494						9	(03 1-80-9)	Ţ	6/		- A	PAGE:		4	。 	P.	N		
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.	ormation, contact us26 sal	es@eurofinsus	s.com or ca	ns.			ē	FNT PRC	CLIENT PROJECT NAME / NUMBER:	ME / NUN	BER:					P.O. NO.:					
Geosyntec Consultants	nts								9							SB0704	707				
ADDRESS: 924 Anacapa St. Suite 4A	9 4A						) Iğ	SJECTO	PROJECT CONTACT:							SAMPL	SAMPLER(S): (PRINT)	RINT)			
כודץ: Santa Barbara			STATE:	CA ZIP:	93101		<del></del>	Kevin Coffman	ffman							Kenj	Kenjo Agustsson	sson			
TEL: 805-897-3800	E-MAIL: KCoffm	KCoffman@geosyntec.com	yntec.co	띪								REC	NES.	REQUESTED ANALYSES	NALY	SES					
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☐ SAME DAY ☐ 24 HR	☐ 48 HR ☐ 72 HR	R □5DAYS		E STANDARD	\RD													Ī			
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Return to Contents

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Relinquished by: (Signature)

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Relinquished by: (Signature)

06/02/14 Revision

70/57 Time:

Date: 8 - 2 + 16Date: 08 - 85 / 6

/s2

Received by: (Signature/Affiliation)

			*		
	Express. US Airbill	Tracking BOBL 3188	4139	form. 0200	Recipient's Copy
1	From Date 8-24-16.			4 Express Package Service • To most locations.  NOTE: Service order has changed. Please select carefully.	Packages up to 150 lbs. For packages over 150 lbs. use the new FedEx Express Freight US Airbill.
	Sender's Kenyo Agustss	>^ Phone 805 8	397-3800	FedEx First Overnight FedEx	Business Days  2Day A.M. usiness morning.* Delivery NOT available.
	Company GOOSYNTEC CEN	sulfa. Is stables		FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery will be delivered on Monday unless SATURDAY Delivery.	2Day usiness afternoon.* Thursday shipments fivered on Monday unless SATURDAY
	Address 724 Anacapa S	St. Ste 4A	Dept/Floor/Suite/Room	FedEx Standard Overnight FedEx	s selected. Express Saver Iness day. Delivery NOT available.
	on Santa Karbara	State CA ZIP 931	01	5 Packaging *Doclared value limit \$500.	fede
2	Your Internal Billing Reference	SP0794-07	2	FedEx Pak* FedEx Pak* Box	
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	Address 7440 Lincoln	Way	HOLD Weekday FedEx location address REQUIRED: NOT available for	Does this shipment contain dangerous goods?	residential deliveries only. Fee applies.
	We cannot deliver to P.O. boxes or P.O. ZIP codes.  Address Use this line for the HOLD location address or for continuation of your shippin	Dept_Floor/Suite_Floor	FodEx first Overnight.  HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Printy Overnight and FedEx 20 ay to select locations.	No As per statched Shipper's Declaration Dangerous goods (including dry ice) cannot be shipped in FedEx peckaging or placed in a FedEx Express Drop Box	Ory Ice Ory Ice x x x kg  Cargo Aircraft Only
	in Garden Grove	State CA ZIP 928	. 3	7 Payment Bill to:  Enter FedEx Acct. No. or Credit Card No.	Obtain recip.  Acct. No.
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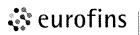
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92841 CA-US SNA



FID 5163113 24AUG16 TYKA 539C1/1378/976E



Calscience

WORK ORDER NUMBER: 16-08- 180

		SAMPLE RECEIPT	CHECKLIST	C	OOLER	$\mathcal{L}^{\prime}$	OF —
CLIENT:	Gosyntee			DA	TE: <b>08</b>	/	_/ 2010
Thermomet  Samp  Samp  Samp	er ID: SC2A (CF: 0.0°C); Tele(s) outside temperature ele(s) outside temperature ele(s)	O°C, not frozen except sedimental femperature (w/o CF):	2 °C (w/ CF):		□ Blank Check		
	•						
CUSTODY Cooler Sample(s)	□ Present and Intact □ Present and Intact	☐ Present but Not Intact☐ Present but Not Intact☐	Not Present Not Present	□ N/A □ N/A			300 77 8
SAMPLE C	ONDITION:				Yes	No	N/A
Chain-of-Cเ	ustody (COC) document(s)	received with samples			. 🔎		
COC docun	nent(s) received complete				. 🛮		
□ Samp	ling date ☐ Sampling tim	e □ Matrix □ Number of co elinquished □ No relinquishe	ontainers				
Sampler's n	name indicated on COC				. 4		
Sample con	ntainer label(s) consistent v	with COC			. 4		
Sample con	ntainer(s) intact and in goo	d condition			. 1		
Proper cont	ainers for analyses reques	sted			. 0		
Sufficient vo	olume/mass for analyses r	equested			. 1		
Samples re	ceived within holding time	,			. 🗷		
Aqueous	s samples for certain analy	ses received within 15-minute	holding time				
□рН□	☐ Residual Chlorine ☐ Di	ssolved Sulfide    Dissolved	Oxygen		. 🗆		Ø
Proper pres	servation chemical(s) noted	d on COC and/or sample cont	ainer		. 🗆	Ø	
Unprese	rved aqueous sample(s) r	eceived for certain analyses					
□ Volati	le Organics 🛭 Total Meta	als Dissolved Metals					
Container(s	s) for certain analysis free of	of headspace	<i></i>		. 🗆		<i>p</i>
☐ Volati	le Organics    Dissolved	Gases (RSK-175) ☐ Dissolv	ved Oxygen (SM 4	500)			
☐ Carbo	on Dioxide (SM 4500) 🛛 I	Ferrous Iron (SM 3500) DHy	ydrogen Sulfide (H	ach)			
Tedlar™ ba	g(s) free of condensation				. 🗆		尸
CONTAINE	R TYPE:		(Trip Blaı	nk Lot Numb	er:		)
Aqueous: E	JVOA 🗆 VOAh 🗆 VOAr	ia₂ □ 100PJ □ 100PJna₂ □	1 125AGB □ 125A	GB <b>h</b> □ 125 <i>A</i>	AGB <b>p</b> □	125PB	i
□ 125PB <b>zn</b>	na □ 250AGB □ 250CG	B 🗆 250CGBs 🗆 250PB 🗖	<sup>'</sup> 250PB <b>n_</b> ₽□ 500A0	B 🗆 500AG	J 🗆 500	AGJ <b>s</b>	
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I .		HCI, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOH, <b>na</b>					778

 $\mathbf{s} = H_2SO_4$ ,  $\mathbf{u} = \text{ultra-pure}$ ,  $\mathbf{znna} = \text{Zn} (CH_3CO_2)_2 + \text{NaOH}$ 

Reviewed by: \_

Calscience

WORK ORDER NUMBER: 16-08- 18-07

## **SAMPLE ANOMALY REPORT**

DATE: 08 / 25 / 2016

SAMPLES	S, CONTAIN	ERS, AN	D LABELS	S:		Commer	its		
☐ Sample(	s) NOT RECE	IVED but	listed on CO	OC .		***			
☐ Sample(	s) received bu	it NOT LIS	TED on CC	C					
☐ Holding	time expired (I	list client o	r ECI samp	le ID and ana	lysis)				
☐ Insufficie	ent sample am	ount for re	equested an	alysis (list ana	alysis)				
☐ Imprope	r container(s)	used (list a	analysis)						
Imprope	r preservative	used (list	analysis)						A 1 c 1 c 2
□ No prese	ervative noted	on COC o	r label (list	analysis and r	notify lab)	15) to	49) rec	reived	<u>. 14003</u>
☐ Sample	container(s) n	ot labeled				PY	served	cont	ainer
☐ Client sa	ample label(s)	illegible (li	st container	type and ana	ılysis)	-fo	r Met	als (	ab filtered/
☐ Client sa	ample label(s)	do not ma	tch COC (c	omment)					
□ Proje	ect information							-	
☐ Clien	it sample ID								·
☐ Sam	pling date and	or time							
□ Num	ber of containe	er(s)							
□ Requ	uested analysis	s			- 5	<u> </u>			
☐ Sample	container(s) co	ompromise	ed (commer	nt)		,			
☐ Brok	en								
☐ Wate	er present in sa	ample cont	tainer						
☐ Air samp	ole container(s	s) compron	nised (comr	ment)					
□ Flat									
□ Very	low in volume	•							
□ Leak	ing (not transf	erred; dup	licate bag s	ubmitted)					
□ Leak	ing (transferre	d into ECI	Tedlar™ b	ags*)					
□ Leak	ing (transferre	d into clier	nt's Tedlar⊺	<sup>м</sup> bags*)			8		
* Transfer	rred at client's requ	uest.					A.		
MISCELL	ANEOUS: (D	Describe)				Commer	nts		
HEADSP	ACE.				_				
	ith bubble > 6 mm	or ¼ inch for	volatile organi	ic or dissolved das	s analysis)	(Containers wi	th bubble for othe	er analysis)	
ECI	ECI	Total	ECI	ECI	Total	ECI	ECI .	Total Number**	Poguetted Analysis
Sample ID	Container ID	Number**	Sample ID	Container ID	Number**	Sample ID	Container ID	Number**	Requested Analysis
						:			
		<u> </u>			.1				
Comments								F	Panartad hiii 77/
								. H	Reported by: 771 Leviewed by: 826
** Record the	total number of co	ontainers (i.e.,	, vials or bottle	s) for the affected	sample.			K	teviewed by: 0 VO

# Contents

#### Hoaibao Nguyen

From: Kevin Coffman [KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:52 PM

To: Hoaibao Nguyen

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Follow Up Flag: Follow up Flag Status: Flagged

Correct. thanks

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]

Sent: Thursday, September 01, 2016 4:51 PM

To: Kevin Coffman

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

No STLC for now but yes to SVOCs, correct?

Best Regards,

Hoaibao (Tina) Nguyen Assistant Project Manager

**From:** Kevin Coffman [mailto:KCoffman@Geosyntec.com]

Sent: Thursday, September 01, 2016 4:31 PM

To: Hoaibao Nguyen

**Cc:** Ryan Smith (<u>r.smith@cgroxane.com</u>)

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,

Please hold the samples. We won't run the samples for STLC until we see the final metals results.

Thanks.

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]

Sent: Thursday, September 01, 2016 3:55 PM

**To:** Kevin Coffman

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

For the soluble metals, it does not look like any of the metals were above the limit for STLC, did you still want us to run the soluble metals? If so, please let me know which elements.

Best Regards,

Hoaibao (Tina) Nguyen

1 Intents

**From:** Kevin Coffman [mailto:KCoffman@Geosyntec.com]

Sent: Thursday, September 01, 2016 3:50 PM

To: Hoaibao Nguyen

**Cc:** Ryan Smith (<u>r.smith@cgroxane.com</u>)

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

#### Tina,

In addition to the VOCs on the 2 soil samples, please analyze them for SVOCs and soluble metals.

#### Standard TAT.

#### Thanks,

Kevin Coffman Geosyntec 805.979.9134

From: Kevin Coffman

Sent: Monday, August 29, 2016 10:51 AM

To: 'Hoaibao Nguyen'

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

#### Tina,

As a follow up, please run soil samples SS-01-160823 and SS-02-160823 for VOCs.

#### Thanks.

Kevin Coffman Geosyntec 805.979.9134

From: Kevin Coffman

**Sent:** Thursday, August 25, 2016 4:38 PM

To: 'Hoaibao Nguyen'

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Correct. Please run all water samples on 3 day TAT.

#### Thank you.

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNquyen@eurofinsUS.com]

Sent: Thursday, August 25, 2016 4:37 PM

**To:** Kevin Coffman

Subject: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Hi Kevin,

Could you please confirm that you wanted all water samples listed on COC ran on a 3day TAT.



# **Calscience**

#### Supplemental Report 1

Additional requested analyses have been added to the original report.



# WORK ORDER NUMBER: 16-08-1807

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Suite 4A

Santa Barbara, CA 93101-2177

Monde

Approved for release on 09/12/2016 by:

Stephen Nowak Project Manager

ResultLink ▶

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number:	16-08-1807

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#### **Work Order Narrative**

Work Order: 16-08-1807 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1807.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



## **Sample Summary**

Client: Geosyntec Consultants

Work Order:

16-08-1807

924 Anacapa Street, Suite 4A

Project Name:

CG Roxane / SB0794

PO Number: Santa Barbara, CA 93101-2177

Date/Time

08/25/16 10:15

Received:

Number of 16

Containers:

Kevin Coffman Attn:

Sample Identification	Lab Number	Collection Date and Time	Number of	Matrix
			Containers	
B-01-S-10-160823	16-08-1807-1	08/23/16 07:23	1	Solid
B-01-S-18-160823	16-08-1807-2	08/23/16 07:26	1	Solid
B-01-S-15-160823	16-08-1807-3	08/23/16 07:23	1	Solid
B-01-S-05-160823	16-08-1807-4	08/23/16 07:20	1	Solid
B-02-W-15.5-160823	16-08-1807-5	08/23/16 14:15	2	Aqueous
B-02-W-15.5-160823-DUP	16-08-1807-6	08/23/16 14:15	2	Aqueous
B-02-W-12.25-160823	16-08-1807-7	08/23/16 13:30	2	Aqueous
B-02-W-23-160823	16-08-1807-8	08/23/16 16:00	2	Aqueous
B-02-W-25.5-160823	16-08-1807-9	08/23/16 16:15	2	Aqueous
SS-02-160823	16-08-1807-10	08/23/16 15:45	1	Solid
SS-01-160823	16-08-1807-11	08/23/16 15:30	1	Solid





16-08-1807

Client: Geosyntec Consultants Work Order:

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 08/25/16

Attn: Kevin Coffman Page 1 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B-01-S-10-160823 (16-08-1807-1)						
Arsenic	1.61		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	23.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.28		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.13		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	3.72		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	1.87		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.809		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	8.68		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.6		1.01	mg/kg	EPA 6010B	EPA 3050B
B-01-S-18-160823 (16-08-1807-2)						
Arsenic	3.62		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	52.9		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.55		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.79		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.36		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	2.53		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.04		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.83		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.4		0.980	mg/kg	EPA 6010B	EPA 3050B
B-01-S-15-160823 (16-08-1807-3)						
Arsenic	23.1		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	65.6		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.353		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.93		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.47		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	11.4		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	7.55		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.05		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	59.6		1.01	mg/kg	EPA 6010B	EPA 3050B

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order:

16-08-1807

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name:

CG Roxane / SB0794

Received:

08/25/16

Attn: Kevin Coffman Page 2 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B-01-S-05-160823 (16-08-1807-4)						
Arsenic	1.34		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	24.0		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.612		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.32		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	4.11		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	2.01		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.773		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	9.19		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.2		1.03	mg/kg	EPA 6010B	EPA 3050B
B-02-W-15.5-160823 (16-08-1807-5)						
Arsenic	0.0391		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0298		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0382		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0255		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0120		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.91		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0135		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.613		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.112		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.89		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0577		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.638		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.660		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.49		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00401		0.000500	mg/L	EPA 7470A	EPA 7470A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order: 16-08-1807

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 08/25/16

Attn: Kevin Coffman Page 3 of 5

Clie	nt SampleID						
4	<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
B-02	2-W-15.5-160823-DUP (16-08-1807-6)						
A	Antimony	0.0209		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
A	Arsenic	0.0455		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
E	Barium	0.0301		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
N	Molybdenum	0.0448		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
\	/anadium	0.0432		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Z	Zinc	0.0177		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
F	Arsenic	0.142		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Е	Barium	2.83		0.0100	mg/L	EPA 6010B	EPA 3010A Total
E	Beryllium	0.0130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Chromium	0.589		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Cobalt	0.102		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Copper	1.85		0.0100	mg/L	EPA 6010B	EPA 3010A Total
L	∟ead	0.204		0.0100	mg/L	EPA 6010B	EPA 3010A Total
N	Molybdenum	0.0502		0.0100	mg/L	EPA 6010B	EPA 3010A Total
١	Nickel	0.598		0.0100	mg/L	EPA 6010B	EPA 3010A Total
١	/anadium	0.606		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Z	Zinc	1.35		0.0100	mg/L	EPA 6010B	EPA 3010A Total
N	Mercury	0.00396		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02	2-W-12.25-160823 (16-08-1807-7)						
P	Arsenic	0.363		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
N	Molybdenum	0.308		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
\	/anadium	0.0665		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Z	Zinc	0.0146		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
P	Arsenic	0.402		0.0100	mg/L	EPA 6010B	EPA 3010A Total
E	Barium	0.713		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Chromium	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Cobalt	0.0480		0.0100	mg/L	EPA 6010B	EPA 3010A Total
(	Copper	0.201		0.0100	mg/L	EPA 6010B	EPA 3010A Total
L	∟ead	0.134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
N	Molybdenum	0.191		0.0100	mg/L	EPA 6010B	EPA 3010A Total
1	Nickel	0.0539		0.0100	mg/L	EPA 6010B	EPA 3010A Total
\	/anadium	0.456		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Z	Zinc	0.649		0.0100	mg/L	EPA 6010B	EPA 3010A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order: 16-08-1807

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 08/25/16

Attn: Kevin Coffman Page 4 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
B-02-W-23-160823 (16-08-1807-8)						
Arsenic	0.0133		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0107		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0509		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.06		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.242		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0476		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.576		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.0460		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0308		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.117		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.495		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00107		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-25.5-160823 (16-08-1807-9)						
Antimony	0.0412		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.119		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0241		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0873		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0223		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0126		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.171		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.50		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cadmium	0.0151		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.281		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.161		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0265		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.148		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.325		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.517		0.0100	mg/L	EPA 6010B	EPA 3010A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order:

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

16-08-1807

Santa Barbara, CA 93101-2177

Received: 08/25/16

Attn: Kevin Coffman Page 5 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
SS-02-160823 (16-08-1807-10)						
Arsenic	22.7		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	69.9		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.270		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.31		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.57		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.52		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.45		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.38		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.6		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.1		1.04	mg/kg	EPA 6010B	EPA 3050B
SS-01-160823 (16-08-1807-11)						
Antimony	1.84		0.781	mg/kg	EPA 6010B	EPA 3050B
Arsenic	29.0		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	53.0		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.10		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.48		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	9.18		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	4.59		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.74		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.15		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		1.04	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	16-08-1807-1-A	08/23/16 07:23	Solid	ICP 8300	08/29/16	08/31/16 14:32	160829L02
Parameter		Result	<u> </u>	<u> </u>	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	(	).754	1.01		
Arsenic		1.61	(	).754	1.01		
Barium		23.7	(	0.503	1.01		
Beryllium		ND	(	).251	1.01		
Cadmium		ND	(	0.503	1.01		
Chromium		1.28	(	).251	1.01		
Cobalt		2.13	(	).251	1.01		
Copper		3.72	(	0.503	1.01		
Lead		1.87	(	0.503	1.01		
Molybdenum		ND	(	).251	1.01		
Nickel		0.809	(	).251	1.01		
Selenium		ND	(	).754	1.01		
Silver		ND	(	).251	1.01		
Thallium		ND	(	).754	1.01		
Vanadium		8.68	(	).251	1.01		
Zinc		29.6	1	1.01	1.01		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Silver

Zinc

Thallium

Vanadium

Date Received: Work Order: Preparation: Method:

0.245

0.735

0.245

0.980

Units:

08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg Page 2 of 7

0.980

0.980

0.980

0.980

							<u> </u>
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	16-08-1807-2-A	08/23/16 07:26	Solid	ICP 8300	08/29/16	08/31/16 14:37	160829L02
Parameter	·	Result	<u> </u>	<u> </u>	<u>DF</u>	Qua	alifiers
Antimony		ND	(	0.735	0.980		
Arsenic		3.62	(	).735	0.980		
Barium		52.9	(	0.490	0.980		
Beryllium		ND	(	).245	0.980		
Cadmium		ND	(	0.490	0.980		
Chromium		8.55	(	0.245	0.980		
Cobalt		2.79	(	).245	0.980		
Copper		6.36	(	0.490	0.980		
Lead		2.53	(	0.490	0.980		
Molybdenum		1.04	(	).245	0.980		
Nickel		1.83	(	0.245	0.980		
Selenium		ND	(	0.735	0.980		

ND

ND

11.0

38.4



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg Page 3 of 7

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date	Date/Time	QC Batch ID
B-01-S-15-160823	16-08-1807-3-A	08/23/16 07:23	Solid	ICP 8300	Prepared 08/29/16	Analyzed 08/31/16 14:39	160829L02
<u>Parameter</u>		Result	<u>F</u>	<u> </u>	<u>DF</u>	Qua	llifiers
Antimony		ND	(	).754	1.01		
Arsenic		23.1	(	).754	1.01		
Barium		65.6	(	0.503	1.01		
Beryllium		0.353	(	).251	1.01		
Cadmium		ND	(	).503	1.01		
Chromium		1.93	(	).251	1.01		
Cobalt		5.47	(	).251	1.01		
Copper		11.4	(	).503	1.01		
Lead		7.55	(	).503	1.01		
Molybdenum		ND	(	).251	1.01		
Nickel		2.05	(	).251	1.01		
Selenium		ND	(	).754	1.01		
Silver		ND	(	).251	1.01		
Thallium		ND	(	).754	1.01		
Vanadium		23.5	(	).251	1.01		
Zinc		59.6	1	1.01	1.01		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3050B EPA 6010B

08/25/16

mg/kg

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-05-160823	16-08-1807-4-A	08/23/16 07:20	Solid	ICP 8300	08/29/16	08/31/16 14:41	160829L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Qua</u>	<u>lifiers</u>
Antimony		ND		0.773	1.03		
Arsenic		1.34		0.773	1.03		
Barium		24.0		0.515	1.03		
Beryllium		ND		0.258	1.03		
Cadmium		ND		0.515	1.03		
Chromium		0.612		0.258	1.03		
Cobalt		2.32		0.258	1.03		
Copper		4.11		0.515	1.03		
Lead		2.01		0.515	1.03		
Molybdenum		ND		0.258	1.03		
Nickel		0.773		0.258	1.03		
Selenium		ND		0.773	1.03		
Silver		ND		0.258	1.03		
Thallium		ND		0.773	1.03		
Vanadium		9.19		0.258	1.03		
Zinc		33.2		1.03	1.03		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Vanadium

Zinc

Date Received: Work Order: Preparation: Method:

0.259

1.04

Units:

08/25/16 16-08-1807 **EPA 3050B** EPA 6010B

mg/kg

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1.04

1.04

Project: CG Roxane / SB0794	Page 5 of 7						
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	ICP 8300	08/29/16	08/31/16 14:42	160829L02
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Antimony		ND	(	0.777	1.04		
Arsenic		22.7	(	0.777	1.04		
Barium		69.9	(	0.518	1.04		
Beryllium		0.270	(	0.259	1.04		
Cadmium		ND	(	0.518	1.04		
Chromium		1.31	(	0.259	1.04		
Cobalt		2.57	(	0.259	1.04		
Copper		8.52	(	0.518	1.04		
Lead		ND	(	0.518	1.04		
Molybdenum		2.45	(	0.259	1.04		
Nickel		1.38	(	0.259	1.04		
Selenium		ND	(	0.777	1.04		
Silver		ND	(	0.259	1.04		
Thallium		ND	(	0.777	1.04		

14.6

42.1



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	ICP 8300	08/29/16	08/31/16 14:47	160829L02
Parameter		Result	<u> </u>	<u> </u>	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		1.84	C	).781	1.04		
Arsenic		29.0	C	).781	1.04		
Barium		53.0	C	).521	1.04		
Beryllium		ND	C	0.260	1.04		
Cadmium		ND	C	).521	1.04		
Chromium		7.10	C	0.260	1.04		
Cobalt		2.48	C	0.260	1.04		
Copper		9.18	C	).521	1.04		
Lead		4.59	C	).521	1.04		
Molybdenum		1.74	C	0.260	1.04		
Nickel		4.15	C	0.260	1.04		
Selenium		ND	C	).781	1.04		
Silver		ND	C	0.260	1.04		
Thallium		ND	C	).781	1.04		
Vanadium		29.3	C	0.260	1.04		
Zinc		26.9	1	1.04	1.04		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3050B EPA 6010B

mg/kg

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-23162	N/A	Solid	ICP 8300	08/29/16	08/31/16 12:57	160829L02
Parameter		Result	<u> </u>	<u>RL</u>	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0	.721	0.962		
Arsenic		ND	0	.721	0.962		
Barium		ND	0	.481	0.962		
Beryllium		ND	0	.240	0.962		
Cadmium		ND	0	.481	0.962		
Chromium		ND	0	.240	0.962		
Cobalt		ND	0	.240	0.962		
Copper		ND	0	.481	0.962		
Lead		ND	0	.481	0.962		
Molybdenum		ND	0	.240	0.962		
Nickel		ND	0	.240	0.962		
Selenium		ND	0	.721	0.962		
Silver		ND	0	.240	0.962		
Thallium		ND	0	.721	0.962		
Vanadium		ND	0	.240	0.962		
Zinc		ND	0	.962	0.962		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	16-08-1807-5-A	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 19:33	160829LA5
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.158	0.0	0100	1.00		
Barium		2.91	0.0	0100	1.00		
Beryllium		0.0135	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.613	0.0	0100	1.00		
Cobalt		0.112	0.0	0100	1.00		
Copper		1.89	0.0	0100	1.00		
Lead		0.214	0.0	0100	1.00		
Molybdenum		0.0577	0.0	0100	1.00		
Nickel		0.638	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.660	0.0	0100	1.00		
Zinc		1.49	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	16-08-1807-6-A	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:12	160829LA5
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	)150	1.00		
Arsenic		0.142	0.0	)100	1.00		
Barium		2.83	0.0	100	1.00		
Beryllium		0.0130	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		0.589	0.0	100	1.00		
Cobalt		0.102	0.0	100	1.00		
Copper		1.85	0.0	100	1.00		
Lead		0.204	0.0	0100	1.00		
Molybdenum		0.0502	0.0	100	1.00		
Nickel		0.598	0.0	0100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.606	0.0	100	1.00		
Zinc		1.35	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	16-08-1807-7-A	08/23/16 13:30	Aqueous	ICP 7300	08/29/16	08/30/16 18:13	160829LA5
Parameter	·	Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.402	0.0	0100	1.00		
Barium		0.713	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.158	0.0	0100	1.00		
Cobalt		0.0480	0.0	0100	1.00		
Copper		0.201	0.0	0100	1.00		
Lead		0.134	0.0	0100	1.00		
Molybdenum		0.191	0.0	0100	1.00		
Nickel		0.0539	0.0	0100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		0.456	0.0	0100	1.00		
Zinc		0.649	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	16-08-1807-8-A	08/23/16 16:00	Aqueous	ICP 7300	08/29/16	08/30/16 18:14	160829LA5
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.0316	0.0	0100	1.00		
Barium		1.06	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		0.242	0.0	0100	1.00		
Cobalt		0.0476	0.0	0100	1.00		
Copper		0.576	0.0	0100	1.00		
Lead		0.0460	0.0	0100	1.00		
Molybdenum		0.0308	0.0	0100	1.00		
Nickel		0.117	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.214	0.0	0100	1.00		
Zinc		0.495	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	16-08-1807-9-A	08/23/16 16:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:15	160829LA5
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	)150	1.00		
Arsenic		0.171	0.0	)100	1.00		
Barium		1.50	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		0.0151	0.0	100	1.00		
Chromium		0.281	0.0	100	1.00		
Cobalt		0.0316	0.0	100	1.00		
Copper		0.130	0.0	100	1.00		
Lead		0.161	0.0	100	1.00		
Molybdenum		0.0265	0.0	100	1.00		
Nickel		0.148	0.0	100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.325	0.0	0100	1.00		
Zinc		0.517	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3010A Total EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15996	N/A	Aqueous	ICP 7300	08/29/16	08/30/16 18:39	160829LA5
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	150	1.00		
Arsenic		ND	0.0	100	1.00		
Barium		ND	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		ND	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	150	1.00		
Vanadium		ND	0.0	100	1.00		
Zinc		ND	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	16-08-1807-5-B	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:17	160829LA5A
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	150	1.00		
Arsenic		0.0391	0.0	100	1.00		
Barium		0.0298	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		0.0382	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	150	1.00		
Vanadium		0.0255	0.0	100	1.00		
Zinc		0.0120	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	16-08-1807-6-B	08/23/16 14:15	Aqueous	ICP 7300	08/29/16	08/30/16 18:18	160829LA5A
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.0209	0.0	)150	1.00		
Arsenic		0.0455	0.0	0100	1.00		
Barium		0.0301	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0448	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.0432	0.0	0100	1.00		
Zinc		0.0177	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	16-08-1807-7-B	08/23/16 13:30	Aqueous	ICP 7300	08/29/16	08/30/16 18:19	160829LA5A
<u>Parameter</u>		<u>Result</u>	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	150	1.00		
Arsenic		0.363	0.0	100	1.00		
Barium		ND	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		0.308	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	150	1.00		
Silver		ND	0.0	0500	1.00		
Thallium		ND	0.0	150	1.00		
Vanadium		0.0665	0.0	100	1.00		
Zinc		0.0146	0.0	100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

Page 4 of 6

Client Sample Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
	Number	Collected			Prepared	Analyzed	
B-02-W-23-160823	16-08-1807-8-B	08/23/16 16:00	Aqueous	ICP 7300	08/29/16	08/30/16 18:20	160829LA5A
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	0150	1.00		
Arsenic		0.0133	0.0	0100	1.00		
Barium		0.0107	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0509	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
B-02-W-25.5-160823	Number 16-08-1807-9-B	08/23/16	Aqueous	ICP 7300	Prepared <b>08/29/16</b>	Analyzed 08/30/16	160829LA5A
		16:15				18:21	
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>.</u>	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		0.0412	0.0	0150	1.00		
Arsenic		0.119	0.0	0100	1.00		
Barium		0.0241	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0873	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		0.0223	0.0	0100	1.00		
Zinc		0.0126	0.0	0100	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15997	N/A	Aqueous	ICP 7300	08/29/16	08/30/16 18:39	160829LA5A
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	)150	1.00		
Arsenic		ND	0.0	)100	1.00		
Barium		ND	0.0	100	1.00		
Beryllium		ND	0.0	100	1.00		
Cadmium		ND	0.0	100	1.00		
Chromium		ND	0.0	100	1.00		
Cobalt		ND	0.0	100	1.00		
Copper		ND	0.0	100	1.00		
Lead		ND	0.0	100	1.00		
Molybdenum		ND	0.0	100	1.00		
Nickel		ND	0.0	100	1.00		
Selenium		ND	0.0	)150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	)150	1.00		
Vanadium		ND	0.0	100	1.00		
Zinc		ND	0.0	0100	1.00		



Geosyntec Consultants		Date Received: 08/25/						
924 Anacapa Street, Suite 4A			Work Orde	r:			16-08-1807	
Santa Barbara, CA 93101-2177			Preparation	n:		EP	A 7470A Total	
			Method:				EPA 7470A	
			Units:				mg/L	
Project: CG Roxane / SB0794						Pa	age 1 of 1	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
B-02-W-15.5-160823	16-08-1807-5-A	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/30/16 16:13	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		0.00401	0.0	000500	1.00			
B-02-W-15.5-160823-DUP	16-08-1807-6-A	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:17	160829LA1	
Parameter		Result	<u>RL</u> <u>DF</u>		<u>DF</u>	Qualifiers		
Mercury		0.00396	0.0	000500	1.00			
B-02-W-12.25-160823	16-08-1807-7-A	08/23/16 13:30	Aqueous	Mercury 04	08/29/16	08/29/16 21:19	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		ND	0.0	000500	1.00			
B-02-W-23-160823	16-08-1807-8-A	08/23/16 16:00	Aqueous	Mercury 04	08/29/16	08/29/16 21:21	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		0.00107	0.0	000500	1.00			
B-02-W-25.5-160823	16-08-1807-9-A	08/23/16 16:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:24	160829LA1	
Parameter		Result	RL		<u>DF</u>	Qu	alifiers	
Mercury		ND	0.0	000500	1.00			
Method Blank	099-04-008-7962	N/A	Aqueous	Mercury 04	08/29/16	08/29/16 20:50	160829LA1	
Parameter		Result	RL		<u>DF</u>	<u>Qualifiers</u>		
				1	<u> </u>		<u> </u>	



## **Analytical Report**

Geosyntec Consultants			Date Recei	ved:		08/25/16				
924 Anacapa Street, Suite 4A			Work Order	r:			16-08-1807			
Santa Barbara, CA 93101-2177			Preparation	n:		E	PA 7470A Filt.			
			Method:				EPA 7470A			
			Units:				mg/L			
Project: CG Roxane / SB0794						Pa	age 1 of 1			
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID			
B-02-W-15.5-160823	16-08-1807-5-B	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:01	160829LA1F			
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>			
Mercury		ND	0.0	000500	1.00					
B-02-W-15.5-160823-DUP	16-08-1807-6-B	08/23/16 14:15	Aqueous	Mercury 04	08/29/16	08/29/16 20:55	160829LA1F			
<u>Parameter</u>		Result	<u>RL</u> <u>DF</u>		<u>Qualifiers</u>					
Mercury		ND	0.0	000500	1.00					
B-02-W-12.25-160823	16-08-1807-7-B	08/23/16 13:30	Aqueous	Mercury 04	08/29/16	08/29/16 21:04	160829LA1F			
Parameter		Result	RL	:	<u>DF</u>	<u>Qualifiers</u>				
Mercury		ND	0.0	000500	1.00					
B-02-W-23-160823	16-08-1807-8-B	08/23/16 16:00	Aqueous	Mercury 04	08/29/16	08/29/16 21:06	160829LA1F			
Parameter		Result	RL	:	<u>DF</u>	Qua	alifiers			
Mercury		ND	0.0	000500	1.00					
B-02-W-25.5-160823	16-08-1807-9-B	08/23/16 16:15	Aqueous	Mercury 04	08/29/16	08/29/16 21:08	160829LA1F			
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>			
Mercury		ND	0.0	000500	1.00					
Method Blank	099-15-763-815	N/A	Aqueous	Mercury 04	08/29/16	08/29/16 20:50	160829LA1F			
<u>Parameter</u>		Result	RL		DF	Qua	alifiers			
Mercury		ND	0.0	000500	1.00					

DF: Dilution Factor. RL: Reporting Limit. MDL: Method Detection Limit.



## **Analytical Report**

Geosyntec Consultants			Date Re	ceived:			08/25/16
924 Anacapa Street, Suite 4A			Work O	rder:			16-08-1807
Santa Barbara, CA 93101-2177			Prepara	tion:		Page  Date/Time Analyzed  08/30/16 18:49  Qualified  08/30/16 18:54  Qualified  08/30/16 18:56  Qualified  08/30/16 19:16  Qualified  Qualified  Qualified	A 7471A Total
			Method:				EPA 7471A
			Units:				mg/kg
Project: CG Roxane / SB0794						Pa	ige 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared		QC Batch ID
B-01-S-10-160823	16-08-1807-1-A	08/23/16 07:23	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0877	1.00		
B-01-S-18-160823	16-08-1807-2-A	08/23/16 07:26	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Mercury		ND		0.0794	1.00		
B-01-S-15-160823	16-08-1807-3-A	08/23/16 07:23	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND		0.0794	1.00		
B-01-S-05-160823	16-08-1807-4-A	08/23/16 07:20	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND		0.0794	1.00		
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND		0.0820	1.00		
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	Mercury 04	08/30/16		160830L01
<u>Parameter</u>		Result		<u>RL</u>	DF	Qua	<u>alifiers</u>
Mercury		ND		0.0820	1.00		
Method Blank	099-16-272-2474	N/A	Solid	Mercury 04	08/30/16	08/30/16 13:13	160830L01
Parameter		Result		<u>RL</u>	DF	Qua	alifiers
Mercury		ND		0.0877	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 3545 EPA 8270C mg/kg

08/25/16

Units:

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	GC/MS CCC	09/06/16	09/08/16 12:00	160906L05B
<u>Parameter</u>		Result	<u> </u>	<u>RL</u>	<u>DF</u>	Qua	<u>llifiers</u>
2,6-Dichlorophenol		ND	2	2.0	1.00		
Acenaphthene		ND	C	0.50	1.00		
Acenaphthylene		ND	C	).50	1.00		
Aniline		ND	C	).50	1.00		
Anthracene		ND	C	).50	1.00		
Azobenzene		ND	C	0.50	1.00		
Benzidine		ND	1	0	1.00		
Benzo (a) Anthracene		ND	C	0.50	1.00		
Benzo (a) Pyrene		ND	C	0.50	1.00		
Benzo (b) Fluoranthene		ND	C	0.50	1.00		
Benzo (g,h,i) Perylene		ND	C	0.50	1.00		
Benzo (k) Fluoranthene		ND	C	0.50	1.00		
Benzoic Acid		ND	2	2.5	1.00		
Benzyl Alcohol		ND	C	0.50	1.00		
Bis(2-Chloroethoxy) Methane		ND	C	0.50	1.00		
Bis(2-Chloroethyl) Ether		ND	2	2.5	1.00		
Bis(2-Chloroisopropyl) Ether		ND	C	0.50	1.00		
Bis(2-Ethylhexyl) Phthalate		ND	C	0.50	1.00		
4-Bromophenyl-Phenyl Ether		ND	C	0.50	1.00		
Butyl Benzyl Phthalate		ND	C	0.50	1.00		
4-Chloro-3-Methylphenol		ND	C	0.50	1.00		
4-Chloroaniline		ND	C	0.50	1.00		
2-Chloronaphthalene		ND	C	0.50	1.00		
2-Chlorophenol		ND	C	0.50	1.00		
4-Chlorophenyl-Phenyl Ether		ND	C	0.50	1.00		
Chrysene		ND		0.50	1.00		
Di-n-Butyl Phthalate		ND	C	0.50	1.00		
Di-n-Octyl Phthalate		ND		0.50	1.00		
Dibenz (a,h) Anthracene		ND		0.50	1.00		
Dibenzofuran		ND		0.50	1.00		
1,2-Dichlorobenzene		ND		).50	1.00		
1,3-Dichlorobenzene		ND		).50	1.00		
1,4-Dichlorobenzene		ND		0.50	1.00		
3,3'-Dichlorobenzidine		ND		0	1.00		
2,4-Dichlorophenol		ND		).50	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3545

 Method:
 EPA 8270C

 Units:
 mg/kg

 Project: CG Roxane / SB0794
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Flojeci. CG Roxalle / 3B0/94				Fage 2 01 9
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	



Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	68	45-105	
2-Fluorophenol	85	35-105	
Nitrobenzene-d5	65	35-100	
p-Terphenyl-d14	84	30-125	
Phenol-d6	82	40-100	
2.4.6-Tribromophenol	92	35-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3545 EPA 8270C mg/kg

08/25/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	GC/MS CCC	09/06/16	09/08/16 12:18	160906L05B
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
2,6-Dichlorophenol		ND	2.0	)	1.00		
Acenaphthene		ND	0.5	50	1.00		
Acenaphthylene		ND	0.5	50	1.00		
Aniline		ND	0.5	50	1.00		
Anthracene		ND	0.5	50	1.00		
Azobenzene		ND	0.5	50	1.00		
Benzidine		ND	9.9	)	1.00		
Benzo (a) Anthracene		ND	0.5	50	1.00		
Benzo (a) Pyrene		ND	0.5	50	1.00		
Benzo (b) Fluoranthene		ND	0.5	50	1.00		
Benzo (g,h,i) Perylene		ND	0.5	50	1.00		
Benzo (k) Fluoranthene		ND	0.5	50	1.00		
Benzoic Acid		ND	2.5	;	1.00		
Benzyl Alcohol		ND	0.5	50	1.00		
Bis(2-Chloroethoxy) Methane		ND	0.5	50	1.00		
Bis(2-Chloroethyl) Ether		ND	2.5	;	1.00		
Bis(2-Chloroisopropyl) Ether		ND	0.5	50	1.00		
Bis(2-Ethylhexyl) Phthalate		ND	0.5	50	1.00		
4-Bromophenyl-Phenyl Ether		ND	0.5	50	1.00		
Butyl Benzyl Phthalate		ND	0.5	50	1.00		
4-Chloro-3-Methylphenol		ND	0.5	50	1.00		
4-Chloroaniline		ND	0.5	50	1.00		
2-Chloronaphthalene		ND	0.5	50	1.00		
2-Chlorophenol		ND	0.5	50	1.00		
4-Chlorophenyl-Phenyl Ether		ND	0.5	50	1.00		
Chrysene		ND	0.5	50	1.00		
Di-n-Butyl Phthalate		ND	0.5	50	1.00		
Di-n-Octyl Phthalate		ND	0.5	50	1.00		
Dibenz (a,h) Anthracene		ND	0.5	50	1.00		
Dibenzofuran		ND	0.5	50	1.00		
1,2-Dichlorobenzene		ND	0.5	50	1.00		
1,3-Dichlorobenzene		ND	0.5		1.00		
1,4-Dichlorobenzene		ND	0.5	50	1.00		
3,3'-Dichlorobenzidine		ND	9.9		1.00		
2,4-Dichlorophenol		ND	0.5	50	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3545

 Method:
 EPA 8270C

 Units:
 mg/kg

 Project: CG Roxane / SB0794
 Page 5 of 9

Project: CG Roxane / SB0794				Page 5 of 9
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	



Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	45-105	
2-Fluorophenol	99	35-105	
Nitrobenzene-d5	80	35-100	
p-Terphenyl-d14	92	30-125	
Phenol-d6	93	40-100	
2,4,6-Tribromophenol	103	35-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 3545 EPA 8270C mg/kg

08/25/16

Project: CG Roxane / SB0794

Page 7 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-620-44	N/A	Solid	GC/MS CCC	09/06/16	09/07/16 09:54	160906L05B
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
2,6-Dichlorophenol		ND	2.0	)	1.00		
Acenaphthene		ND	0.5	50	1.00		
Acenaphthylene		ND	0.5	50	1.00		
Aniline		ND	0.5	50	1.00		
Anthracene		ND	0.5	50	1.00		
Azobenzene		ND	0.5	50	1.00		
Benzidine		ND	10		1.00		
Benzo (a) Anthracene		ND	0.5	50	1.00		
Benzo (a) Pyrene		ND	0.5	50	1.00		
Benzo (b) Fluoranthene		ND	0.5	50	1.00		
Benzo (g,h,i) Perylene		ND	0.5	50	1.00		
Benzo (k) Fluoranthene		ND	0.5	50	1.00		
Benzoic Acid		ND	2.5	5	1.00		
Benzyl Alcohol		ND	0.5	50	1.00		
Bis(2-Chloroethoxy) Methane		ND	0.5	50	1.00		
Bis(2-Chloroethyl) Ether		ND	2.5	5	1.00		
Bis(2-Chloroisopropyl) Ether		ND	0.5	50	1.00		
Bis(2-Ethylhexyl) Phthalate		ND	0.5	50	1.00		
4-Bromophenyl-Phenyl Ether		ND	0.5	50	1.00		
Butyl Benzyl Phthalate		ND	0.5	50	1.00		
4-Chloro-3-Methylphenol		ND	0.5	50	1.00		
4-Chloroaniline		ND	0.5	50	1.00		
2-Chloronaphthalene		ND	0.5	50	1.00		
2-Chlorophenol		ND	0.5	50	1.00		
4-Chlorophenyl-Phenyl Ether		ND	0.5	50	1.00		
Chrysene		ND	0.5	50	1.00		
Di-n-Butyl Phthalate		ND	0.5	50	1.00		
Di-n-Octyl Phthalate		ND	0.5	50	1.00		
Dibenz (a,h) Anthracene		ND	0.5	50	1.00		
Dibenzofuran		ND	0.5	50	1.00		
1,2-Dichlorobenzene		ND	0.5		1.00		
1,3-Dichlorobenzene		ND	0.5		1.00		
1,4-Dichlorobenzene		ND	0.5	50	1.00		
3,3'-Dichlorobenzidine		ND	10		1.00		
2,4-Dichlorophenol		ND	0.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3545

 Method:
 EPA 8270C

 Units:
 mg/kg

 Project: CG Roxane / SB0794
 Page 8 of 9

Floject. CG Roxalle / Sbo794				raye o ui 9
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
•				



Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 9 of 9

<u>Surrogate</u>	Rec. (%)	Control Limits	<u>Qualifiers</u>
2-Fluorobiphenyl	74	45-105	
2-Fluorophenol	91	35-105	
Nitrobenzene-d5	79	35-100	
p-Terphenyl-d14	73	30-125	
Phenol-d6	85	40-100	
2,4,6-Tribromophenol	76	35-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 5030C EPA 8260B

08/25/16

Units: ug/kg
Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	16-08-1807-10-A	08/23/16 15:45	Solid	GC/MS Q	08/29/16	08/30/16 11:34	160830L005
<u>Parameter</u>		Result	R	RL .	<u>DF</u>	Qua	alifiers
Acetone		ND	1	30	1.00		
Benzene		ND	5	.1	1.00		
Bromobenzene		ND	5	.1	1.00		
Bromochloromethane		ND	5	.1	1.00		
Bromodichloromethane		ND	5	.1	1.00		
Bromoform		ND	5	.1	1.00		
Bromomethane		ND	2	5	1.00		
2-Butanone		ND	5	1	1.00		
n-Butylbenzene		ND	5	.1	1.00		
sec-Butylbenzene		ND	5	.1	1.00		
tert-Butylbenzene		ND	5	.1	1.00		
Carbon Disulfide		ND	5	1	1.00		
Carbon Tetrachloride		ND	5	.1	1.00		
Chlorobenzene		ND	5	.1	1.00		
Chloroethane		ND	5	.1	1.00		
Chloroform		ND	5	.1	1.00		
Chloromethane		ND	2	5	1.00		
2-Chlorotoluene		ND	5	.1	1.00		
4-Chlorotoluene		ND	5	.1	1.00		
Dibromochloromethane		ND	5	.1	1.00		
1,2-Dibromo-3-Chloropropane		ND	1	0	1.00		
1,2-Dibromoethane		ND	5	.1	1.00		
Dibromomethane		ND	5	.1	1.00		
1,2-Dichlorobenzene		ND	5	.1	1.00		
1,3-Dichlorobenzene		ND	5	.1	1.00		
1,4-Dichlorobenzene		ND	5	.1	1.00		
Dichlorodifluoromethane		ND		.1	1.00		
1,1-Dichloroethane		ND		.1	1.00		
1,2-Dichloroethane		ND	5	.1	1.00		
1,1-Dichloroethene		ND	5	.1	1.00		
c-1,2-Dichloroethene		ND		.1	1.00		
t-1,2-Dichloroethene		ND	5	.1	1.00		
1,2-Dichloropropane		ND		.1	1.00		
1,3-Dichloropropane		ND		.1	1.00		
2,2-Dichloropropane		ND		.1	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 2 of 6

Project: CG Roxane / SB0794				Page 2 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	86	60-132		
Dibromofluoromethane	94	63-141		
1,2-Dichloroethane-d4	103	62-146		
Toluene-d8	95	70-130		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 5030C EPA 8260B

08/25/16

ug/kg

Units:

Project: CG Roxane / SB0794

Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	16-08-1807-11-A	08/23/16 15:30	Solid	GC/MS Q	08/29/16	08/30/16 14:01	160830L005
<u>Parameter</u>		Result	E	<u>RL</u>	<u>DF</u>	Qua	lifiers
Acetone		ND	1	20	1.00		
Benzene		ND	5	5.0	1.00		
Bromobenzene		ND	5	5.0	1.00		
Bromochloromethane		ND	5	5.0	1.00		
Bromodichloromethane		ND	5	5.0	1.00		
Bromoform		ND	5	5.0	1.00		
Bromomethane		ND	2	5	1.00		
2-Butanone		ND	5	0	1.00		
n-Butylbenzene		ND	5	5.0	1.00		
sec-Butylbenzene		ND	5	5.0	1.00		
tert-Butylbenzene		ND	5	5.0	1.00		
Carbon Disulfide		ND	5	0	1.00		
Carbon Tetrachloride		ND	5	5.0	1.00		
Chlorobenzene		ND	5	5.0	1.00		
Chloroethane		ND	5	5.0	1.00		
Chloroform		ND	5	5.0	1.00		
Chloromethane		ND	2	5	1.00		
2-Chlorotoluene		ND	5	5.0	1.00		
4-Chlorotoluene		ND	5	5.0	1.00		
Dibromochloromethane		ND	5	5.0	1.00		
1,2-Dibromo-3-Chloropropane		ND	1	0	1.00		
1,2-Dibromoethane		ND	5	5.0	1.00		
Dibromomethane		ND	5	5.0	1.00		
1,2-Dichlorobenzene		ND	5	5.0	1.00		
1,3-Dichlorobenzene		ND	5	5.0	1.00		
1,4-Dichlorobenzene		ND	5	5.0	1.00		
Dichlorodifluoromethane		ND	5	5.0	1.00		
1,1-Dichloroethane		ND	5	5.0	1.00		
1,2-Dichloroethane		ND	5	5.0	1.00		
1,1-Dichloroethene		ND	5	5.0	1.00		
c-1,2-Dichloroethene		ND	5	5.0	1.00		
t-1,2-Dichloroethene		ND	5	5.0	1.00		
1,2-Dichloropropane		ND	5	5.0	1.00		
1,3-Dichloropropane		ND	5	5.0	1.00		
2,2-Dichloropropane		ND	5	5.0	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 4 of 6

Project: CG Roxane / SB0794				Page 4 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	94	60-132		
Dibromofluoromethane	111	63-141		
1,2-Dichloroethane-d4	115	62-146		
Toluene-d8	100	70-130		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-08-1807 EPA 5030C EPA 8260B

08/25/16

ug/kg

Project: CG Roxane / SB0794

Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-314-623	N/A	Solid	GC/MS Q	08/30/16	08/30/16 10:41	160830L005
<u>Parameter</u>		Result	RI	=	<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	12	20	1.00		
Benzene		ND	5.	0	1.00		
Bromobenzene		ND	5.	0	1.00		
Bromochloromethane		ND	5.	0	1.00		
Bromodichloromethane		ND	5.	0	1.00		
Bromoform		ND	5.	0	1.00		
Bromomethane		ND	25	5	1.00		
2-Butanone		ND	50	)	1.00		
n-Butylbenzene		ND	5.0	0	1.00		
sec-Butylbenzene		ND	5.0	0	1.00		
tert-Butylbenzene		ND	5.	0	1.00		
Carbon Disulfide		ND	50	)	1.00		
Carbon Tetrachloride		ND	5.	0	1.00		
Chlorobenzene		ND	5.	0	1.00		
Chloroethane		ND	5.	0	1.00		
Chloroform		ND	5.	0	1.00		
Chloromethane		ND	25	5	1.00		
2-Chlorotoluene		ND	5.	0	1.00		
4-Chlorotoluene		ND	5.	0	1.00		
Dibromochloromethane		ND	5.	0	1.00		
1,2-Dibromo-3-Chloropropane		ND	10	)	1.00		
1,2-Dibromoethane		ND	5.	0	1.00		
Dibromomethane		ND	5.	0	1.00		
1,2-Dichlorobenzene		ND	5.	0	1.00		
1,3-Dichlorobenzene		ND	5.	0	1.00		
1,4-Dichlorobenzene		ND	5.	0	1.00		
Dichlorodifluoromethane		ND	5.	0	1.00		
1,1-Dichloroethane		ND	5.	0	1.00		
1,2-Dichloroethane		ND	5.	0	1.00		
1,1-Dichloroethene		ND	5.		1.00		
c-1,2-Dichloroethene		ND	5.		1.00		
t-1,2-Dichloroethene		ND	5.		1.00		
1,2-Dichloropropane		ND	5.	0	1.00		
1,3-Dichloropropane		ND	5.		1.00		
2,2-Dichloropropane		ND	5.		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: CG Roxane / SB0794
 Page 6 of 6

Project: CG Roxane / SB0794				Page 6 of 6
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	92	60-132		
Dibromofluoromethane	88	63-141		
1,2-Dichloroethane-d4	94	62-146		
Toluene-d8	96	70-130		



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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
B-01-S-10-160823	Sample		Solid	ICP	8300	08/29/16	08/29/16 08/31/16 14:32		160829S02	
B-01-S-10-160823	Matrix Spike		Solid	ICP	8300	08/29/16	08/31/16	14:34	160829S02	
B-01-S-10-160823	Matrix Spike	Duplicate	Solid	ICP	8300	08/29/16	08/31/16	14:36	160829S02	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	17.75	71	17.84	71	50-115	0	0-20	
Arsenic	1.611	25.00	27.38	103	25.97	97	75-125	5	0-20	
Barium	23.65	25.00	50.75	108	47.90	97	75-125	6	0-20	
Beryllium	ND	25.00	24.75	99	24.14	97	75-125	3	0-20	
Cadmium	ND	25.00	26.01	104	25.10	100	75-125	4	0-20	
Chromium	1.277	25.00	27.91	107	27.00	103	75-125	3	0-20	
Cobalt	2.128	25.00	28.08	104	27.13	100	75-125	3	0-20	
Copper	3.719	25.00	30.46	107	29.67	104	75-125	3	0-20	
Lead	1.873	25.00	26.95	100	26.10	97	75-125	3	0-20	
Molybdenum	ND	25.00	25.44	102	24.74	99	75-125	3	0-20	
Nickel	0.8091	25.00	25.77	100	24.90	96	75-125	3	0-20	
Selenium	ND	25.00	25.32	101	24.49	98	75-125	3	0-20	
Silver	ND	12.50	13.21	106	12.86	103	75-125	3	0-20	
Thallium	ND	25.00	23.79	95	23.44	94	75-125	1	0-20	
Vanadium	8.679	25.00	34.54	103	33.87	101	75-125	2	0-20	
Zinc	29.56	25.00	52.59	92	50.88	85	75-125	3	0-20	



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Quality Control Sample ID	Туре		Matrix		nstrument	Date Prepare	d Date Ana	lyzed	MS/MSD Batch Number	
B-02-W-15.5-160823	Sample		Aqueou	s I	CP 7300	08/29/16 08/30/16 18:17		18:17	160829SA5A	
B-02-W-15.5-160823	Matrix Spike		Aqueou	s I	CP 7300	08/29/16	08/30/16	18:41	160829SA5	4
B-02-W-15.5-160823	Matrix Spike	Duplicate	Aqueou	s l	CP 7300	08/29/16	08/30/16	18:58	160829SA5	4
<u>Parameter</u>	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4733	95	0.4714	94	72-132	0	0-10	
Arsenic	0.03909	0.5000	0.5305	98	0.5257	97	80-140	1	0-11	
Barium	0.02977	0.5000	0.5329	101	0.5361	101	87-123	1	0-6	
Beryllium	ND	0.5000	0.4819	96	0.4833	97	89-119	0	0-8	
Cadmium	ND	0.5000	0.4794	96	0.4815	96	82-124	0	0-7	
Chromium	ND	0.5000	0.4738	95	0.4744	95	86-122	0	0-8	
Cobalt	ND	0.5000	0.4891	98	0.4936	99	83-125	1	0-7	
Copper	ND	0.5000	0.4927	99	0.4936	99	78-126	0	0-7	
Lead	ND	0.5000	0.4732	95	0.4721	94	84-120	0	0-7	
Molybdenum	0.03819	0.5000	0.5119	95	0.5055	93	78-126	1	0-7	
Nickel	ND	0.5000	0.4921	98	0.4930	99	84-120	0	0-7	
Selenium	ND	0.5000	0.4735	95	0.4544	91	79-127	4	0-9	
Silver	ND	0.2500	0.2426	97	0.2443	98	86-128	1	0-7	
Thallium	ND	0.5000	0.4940	99	0.4877	98	79-121	1	0-8	
Vanadium	0.02552	0.5000	0.4966	94	0.4951	94	88-118	0	0-7	
Zinc	0.01203	0.5000	0.5232	102	0.5253	103	89-131	0	0-8	



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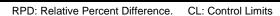
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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
B-02-W-15.5-160823-DUP	Sample		Aqueous	s Me	ercury 04	08/29/16	08/29/16	20:55	160829SA1	
B-02-W-15.5-160823-DUP	Matrix Spike		Aqueous	s Me	ercury 04	08/29/16	08/29/16	20:57	160829SA1	
B-02-W-15.5-160823-DUP	Matrix Spike	Duplicate	Aqueous	s Me	ercury 04	08/29/16	08/29/16	20:59	160829SA1	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01174	117	0.009458	95	55-133	22	0-20	4





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Quality Control Sample ID	Туре		Matrix	Instrument		Date Prepared	Date Ana	lyzed	MS/MSD Batch Number	
16-08-1766-1	Sample		Solid	Mer	cury 04	08/30/16	08/30/16	13:22	160830S01	
16-08-1766-1	Matrix Spike		Solid	Mer	cury 04	08/30/16	08/30/16	13:17	160830S01	
16-08-1766-1	Matrix Spike	Duplicate	Solid	Mer	cury 04	08/30/16	08/30/16	13:20	160830S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7891	95	0.7573	91	71-137	4	0-14	



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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	d Date Ana	lyzed	MS/MSD Ba	tch Number
16-08-2243-4	Sample		Concrete	•	GC/MS CCC	09/06/16	09/07/16	14:33	160906S05	
16-08-2243-4	Matrix Spike		Concrete	•	GC/MS CCC	09/06/16	09/07/16	12:25	160906S05	
16-08-2243-4	Matrix Spike	Duplicate	Concrete	,	GC/MS CCC	09/06/16	09/07/16	12:44	160906S05	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Red	MSD c. Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,6-Dichlorophenol	ND	5.000	4.404	88	4.410	88	75-125	0	0-20	
Acenaphthene	ND	5.000	4.071	81	4.190	84	34-148	3	0-20	
Acenaphthylene	ND	5.000	3.979	80	4.076	82	50-125	2	0-20	
Aniline	ND	5.000	4.869	97	4.128	83	50-130	16	0-20	
Anthracene	ND	5.000	4.230	85	4.284	86	25-140	1	0-20	
Azobenzene	ND	5.000	4.173	83	4.170	83	50-130	0	0-20	
Benzidine	ND	5.000	4.314	86	4.116	82	50-130	5	0-20	
Benzo (a) Anthracene	ND	5.000	4.170	83	4.207	84	30-145	1	0-20	
Benzo (a) Pyrene	ND	5.000	4.795	96	4.858	97	15-165	1	0-20	
Benzo (b) Fluoranthene	ND	5.000	4.470	89	4.509	90	20-160	1	0-20	
Benzo (g,h,i) Perylene	ND	5.000	4.477	90	4.582	92	20-180	2	0-20	
Benzo (k) Fluoranthene	ND	5.000	4.664	93	4.729	95	20-160	1	0-20	
Benzoic Acid	ND	5.000	4.911	98	4.738	95	50-130	4	0-20	
Benzyl Alcohol	ND	5.000	3.988	80	4.066	81	50-130	2	0-20	
Bis(2-Chloroethoxy) Methane	ND	5.000	4.041	81	4.012	80	30-185	1	0-20	
Bis(2-Chloroethyl) Ether	ND	5.000	3.951	79	4.032	81	10-160	2	0-20	
Bis(2-Chloroisopropyl) Ether	ND	5.000	3.833	77	3.908	78	35-170	2	0-20	
Bis(2-Ethylhexyl) Phthalate	ND	5.000	4.083	82	4.074	81	20-165	0	0-20	
4-Bromophenyl-Phenyl Ether	ND	5.000	4.342	87	4.326	87	50-130	0	0-20	
Butyl Benzyl Phthalate	ND	5.000	3.887	78	3.933	79	40-140	1	0-20	
4-Chloro-3-Methylphenol	ND	5.000	4.212	84	4.267	85	50-125	1	0-20	
4-Chloroaniline	ND	5.000	5.470	109	4.597	92	50-130	17	0-20	
2-Chloronaphthalene	ND	5.000	4.048	81	4.118	82	60-120	2	0-20	
2-Chlorophenol	ND	5.000	4.385	88	4.479	90	53-120	2	0-20	
4-Chlorophenyl-Phenyl Ether	ND	5.000	3.884	78	4.026	81	20-160	4	0-20	
Chrysene	ND	5.000	4.092	82	4.090	82	15-170	0	0-20	
Di-n-Butyl Phthalate	ND	5.000	3.966	79	4.021	80	20-120	1	0-20	
Di-n-Octyl Phthalate	ND	5.000	4.429	89	4.452	89	20-150	1	0-20	
Dibenz (a,h) Anthracene	ND	5.000	4.262	85	4.316	86	20-180	1	0-20	
Dibenzofuran	ND	5.000	3.996	80	4.105	82	50-130	3	0-20	
1,2-Dichlorobenzene	ND	5.000	4.054	81	4.105	82	32-129	1	0-20	
1,3-Dichlorobenzene	ND	5.000	4.087	82	4.123	82	20-130	1	0-20	
1,4-Dichlorobenzene	ND	5.000	4.038	81	4.122	82	43-120	2	0-26	
3,3'-Dichlorobenzidine	ND	5.000	6.872	137	5.857	117	20-180	16	0-20	
2,4-Dichlorophenol	ND	5.000	4.498	90	4.478	90	39-135	0	0-20	



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<u>Parameter</u>	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Diethyl Phthalate	ND	5.000	3.623	72	3.765	75	20-145	4	0-20	
Dimethyl Phthalate	ND	5.000	3.991	80	4.177	84	50-125	5	0-20	
2,4-Dimethylphenol	ND	5.000	4.538	91	4.470	89	32-119	2	0-20	
4,6-Dinitro-2-Methylphenol	ND	5.000	4.457	89	4.509	90	20-180	1	0-20	
2,4-Dinitrophenol	ND	5.000	4.316	86	4.330	87	20-180	0	0-20	
2,4-Dinitrotoluene	ND	5.000	4.060	81	4.282	86	51-129	5	0-20	
2,6-Dinitrotoluene	ND	5.000	4.110	82	4.225	84	50-158	3	0-20	
Fluoranthene	ND	5.000	3.934	79	4.096	82	25-140	4	0-20	
Fluorene	ND	5.000	3.923	78	4.029	81	50-130	3	0-20	
Hexachloro-1,3-Butadiene	ND	5.000	4.030	81	4.019	80	20-120	0	0-20	
Hexachlorobenzene	ND	5.000	3.994	80	4.044	81	20-150	1	0-20	
Hexachlorocyclopentadiene	ND	5.000	3.422	68	3.717	74	50-130	8	0-20	
Hexachloroethane	ND	5.000	4.101	82	4.124	82	40-115	1	0-20	
Indeno (1,2,3-c,d) Pyrene	ND	5.000	4.261	85	4.260	85	20-180	0	0-20	
Isophorone	ND	5.000	3.884	78	3.856	77	20-196	1	0-20	
2-Methylnaphthalene	ND	5.000	4.252	85	4.233	85	20-145	0	0-20	
1-Methylnaphthalene	ND	5.000	3.781	76	3.742	75	20-180	1	0-20	
2-Methylphenol	ND	5.000	4.327	87	4.468	89	50-130	3	0-20	
3/4-Methylphenol	ND	10.00	8.659	87	9.050	91	50-130	4	0-20	
N-Nitroso-di-n-propylamine	ND	5.000	3.784	76	3.911	78	38-140	3	0-20	
N-Nitrosodimethylamine	ND	5.000	3.989	80	4.064	81	50-130	2	0-20	
N-Nitrosodiphenylamine	ND	5.000	4.982	100	5.022	100	50-130	1	0-20	
Naphthalene	ND	5.000	4.062	81	4.036	81	20-140	1	0-20	
4-Nitroaniline	ND	5.000	3.860	77	4.001	80	50-130	4	0-20	
3-Nitroaniline	ND	5.000	3.817	76	3.683	74	50-130	4	0-20	
2-Nitroaniline	ND	5.000	4.276	86	4.451	89	50-130	4	0-20	
Nitrobenzene	ND	5.000	4.213	84	4.191	84	35-180	1	0-20	
4-Nitrophenol	ND	5.000	3.928	79	4.070	81	14-128	4	0-59	
2-Nitrophenol	ND	5.000	4.727	95	4.618	92	25-185	2	0-20	
Pentachlorophenol	ND	5.000	3.773	75	3.873	77	10-124	3	0-20	
Phenanthrene	ND	5.000	4.223	84	4.306	86	50-125	2	0-20	
Phenol	ND	5.000	4.373	87	4.481	90	22-124	2	0-20	
Pyrene	ND	5.000	3.987	80	4.012	80	31-169	1	0-20	
Pyridine	ND	5.000	3.692	74	3.745	75	50-130	1	0-20	
1,2,4-Trichlorobenzene	ND	5.000	4.183	84	4.120	82	40-130	2	0-20	
2,4,6-Trichlorophenol	ND	5.000	4.432	89	4.556	91	37-144	3	0-20	
2,4,5-Trichlorophenol	ND	5.000	4.445	89	4.665	93	50-130	5	0-20	



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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepar	red Date Ana	lyzed	MS/MSD Ba	atch Numbe
SS-02-160823	Sample		Solid	GC	/MS Q	08/29/16	08/30/16	11:34	160830\$00	3
SS-02-160823	Matrix Spike		Solid	GC	/MS Q	08/29/16	08/30/16	12:03	160830S00	3
SS-02-160823	Matrix Spike	Duplicate	Solid	GC	/MS Q	08/29/16	08/30/16	12:29	160830800	3
<u>Parameter</u>	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	82.94	166	134.7	269	70-130	48	0-20	3,4
Benzene	ND	50.00	38.81	78	36.58	73	61-127	6	0-20	
Bromobenzene	ND	50.00	36.88	74	34.10	68	70-130	8	0-20	3
Bromochloromethane	ND	50.00	40.57	81	37.89	76	70-130	7	0-20	
Bromodichloromethane	ND	50.00	38.39	77	35.09	70	70-130	9	0-20	
Bromoform	ND	50.00	39.91	80	35.62	71	70-130	11	0-20	
Bromomethane	ND	50.00	40.65	81	38.57	77	70-130	5	0-20	
2-Butanone	ND	50.00	47.42	95	44.64	89	70-130	6	0-20	
n-Butylbenzene	ND	50.00	36.54	73	35.37	71	77-123	3	0-25	3
sec-Butylbenzene	ND	50.00	38.45	77	37.77	76	70-130	2	0-20	
tert-Butylbenzene	ND	50.00	40.40	81	37.85	76	70-130	7	0-20	
Carbon Disulfide	ND	50.00	42.98	86	40.87	82	70-130	5	0-20	
Carbon Tetrachloride	ND	50.00	38.90	78	38.16	76	51-135	2	0-29	
Chlorobenzene	ND	50.00	38.52	77	35.24	70	57-123	9	0-20	
Chloroethane	ND	50.00	45.33	91	41.11	82	70-130	10	0-20	
Chloroform	ND	50.00	37.60	75	35.01	70	70-130	7	0-20	
Chloromethane	ND	50.00	44.61	89	41.07	82	70-130	8	0-20	
2-Chlorotoluene	ND	50.00	37.80	76	35.28	71	70-130	7	0-20	
4-Chlorotoluene	ND	50.00	37.94	76	34.47	69	70-130	10	0-20	3
Dibromochloromethane	ND	50.00	39.50	79	35.85	72	70-130	10	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	42.32	85	39.54	79	70-130	7	0-20	
1,2-Dibromoethane	ND	50.00	42.77	86	38.09	76	64-124	12	0-20	
Dibromomethane	ND	50.00	41.05	82	36.67	73	70-130	11	0-20	
1,2-Dichlorobenzene	ND	50.00	33.12	66	29.82	60	35-131	10	0-25	
1,3-Dichlorobenzene	ND	50.00	34.74	69	31.13	62	70-130	11	0-20	3
1,4-Dichlorobenzene	ND	50.00	32.40	65	29.50	59	70-130	9	0-20	3
Dichlorodifluoromethane	ND	50.00	49.21	98	45.00	90	70-130	9	0-20	
1,1-Dichloroethane	ND	50.00	39.48	79	37.60	75	70-130	5	0-20	
1,2-Dichloroethane	ND	50.00	37.45	75	34.11	68	70-130	9	0-20	3
1,1-Dichloroethene	ND	50.00	41.72	83	40.05	80	47-143	4	0-25	
c-1,2-Dichloroethene	ND	50.00	38.22	76	36.51	73	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	43.29	87	40.68	81	70-130	6	0-20	
1,2-Dichloropropane	ND	50.00	40.07	80	37.55	75	79-115	6	0-25	3
1,3-Dichloropropane	ND	50.00	40.27	81	37.53	75	70-130	7	0-20	
2,2-Dichloropropane	ND	50.00	39.55	79	37.78	76	70-130	5	0-20	



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<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	40.54	81	39.87	80	70-130	2	0-20	
c-1,3-Dichloropropene	ND	50.00	40.51	81	36.73	73	70-130	10	0-20	
t-1,3-Dichloropropene	ND	50.00	39.89	80	35.11	70	70-130	13	0-20	
Ethylbenzene	ND	50.00	41.17	82	39.48	79	57-129	4	0-22	
2-Hexanone	ND	50.00	50.06	100	45.69	91	70-130	9	0-20	
Isopropylbenzene	ND	50.00	41.92	84	40.65	81	70-130	3	0-20	
p-Isopropyltoluene	ND	50.00	38.89	78	37.85	76	70-130	3	0-20	
Methylene Chloride	ND	50.00	39.90	80	36.93	74	70-130	8	0-20	
4-Methyl-2-Pentanone	ND	50.00	54.17	108	51.07	102	70-130	6	0-20	
Naphthalene	ND	50.00	26.51	53	22.11	44	70-130	18	0-20	3
n-Propylbenzene	ND	50.00	39.03	78	37.47	75	70-130	4	0-20	
Styrene	ND	50.00	39.07	78	35.72	71	70-130	9	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	42.11	84	39.07	78	70-130	7	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	41.71	83	38.95	78	70-130	7	0-20	
Tetrachloroethene	ND	50.00	42.42	85	41.74	83	70-130	2	0-20	
Toluene	ND	50.00	42.46	85	40.15	80	63-123	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	25.67	51	21.57	43	70-130	17	0-20	3
1,2,4-Trichlorobenzene	ND	50.00	28.36	57	23.90	48	70-130	17	0-20	3
1,1,1-Trichloroethane	ND	50.00	39.58	79	38.14	76	70-130	4	0-20	
1,1,2-Trichloroethane	ND	50.00	40.69	81	36.79	74	70-130	10	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	43.08	86	42.26	85	70-130	2	0-20	
Trichloroethene	ND	50.00	42.66	85	40.90	82	44-158	4	0-20	
1,2,3-Trichloropropane	ND	50.00	41.91	84	37.20	74	70-130	12	0-20	
1,2,4-Trimethylbenzene	ND	50.00	38.42	77	35.92	72	70-130	7	0-20	
Trichlorofluoromethane	ND	50.00	43.54	87	39.13	78	70-130	11	0-20	
1,3,5-Trimethylbenzene	ND	50.00	38.81	78	36.71	73	70-130	6	0-20	
Vinyl Acetate	ND	50.00	3.273	7	0.7032	1	70-130	129	0-20	3,4
Vinyl Chloride	ND	50.00	50.36	101	46.91	94	49-139	7	0-47	
p/m-Xylene	ND	100.0	80.16	80	75.67	76	70-130	6	0-20	
o-Xylene	ND	50.00	39.85	80	37.73	75	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.63	87	41.55	83	57-123	5	0-21	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 3050B EPA 6010B

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Quality Control Sample ID	Туре	Matrix	Instrumen	t Date Prepa	red Date Analy	zed LCS Batch I	Number
097-01-002-23162	LCS	Solid	ICP 8300	08/29/16	08/31/16 12	2:58 160829L02	
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Antimony		25.00	24.70	99	80-120	73-127	
Arsenic		25.00	24.80	99	80-120	73-127	
Barium		25.00	25.11	100	80-120	73-127	
Beryllium		25.00	24.20	97	80-120	73-127	
Cadmium		25.00	25.56	102	80-120	73-127	
Chromium		25.00	25.90	104	80-120	73-127	
Cobalt		25.00	25.33	101	80-120	73-127	
Copper		25.00	26.00	104	80-120	73-127	
Lead		25.00	25.40	102	80-120	73-127	
Molybdenum		25.00	25.76	103	80-120	73-127	
Nickel		25.00	24.71	99	80-120	73-127	
Selenium		25.00	25.77	103	80-120	73-127	
Silver		12.50	12.77	102	80-120	73-127	
Thallium		25.00	26.79	107	80-120	73-127	
Vanadium		25.00	25.73	103	80-120	73-127	
Zinc		25.00	25.06	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-08-1807 EPA 3010A Total EPA 6010B

08/25/16

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Quality Control Sample ID	Type	Matri	x Instrum	ent Date Pre	epared Date Ana	lyzed LCS Batc	h Number
097-01-003-15996	LCS	Aque	eous ICP 73	00 08/29/16	08/30/16	18:40 160829L	<b>A</b> 5
Parameter		Spike Added	Conc. Recover	ed LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.5000	0.4894	98	80-120	73-127	
Arsenic		0.5000	0.4855	97	80-120	73-127	
Barium		0.5000	0.5277	106	80-120	73-127	
Beryllium		0.5000	0.4935	99	80-120	73-127	
Cadmium		0.5000	0.5124	102	80-120	73-127	
Chromium		0.5000	0.5167	103	80-120	73-127	
Cobalt		0.5000	0.5307	106	80-120	73-127	
Copper		0.5000	0.5166	103	80-120	73-127	
Lead		0.5000	0.5176	104	80-120	73-127	
Molybdenum		0.5000	0.4974	99	80-120	73-127	
Nickel		0.5000	0.5362	107	80-120	73-127	
Selenium		0.5000	0.4818	96	80-120	73-127	
Silver		0.2500	0.2525	101	80-120	73-127	
Thallium		0.5000	0.5251	105	80-120	73-127	
Vanadium		0.5000	0.4938	99	80-120	73-127	
Zinc		0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 3005A Filt. EPA 6010B

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Quality Control Sample ID	Type	Mat	rix	Instrument	Date Prep	pared Date Ana	lyzed LCS Bat	ch Number
097-01-003-15997	LCS	Aqu	eous	ICP 7300	08/29/16	08/30/16	18:40 160829L	_A5A
<u>Parameter</u>		Spike Added	Conc.	Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.5000	0.4894		98	80-120	73-127	
Arsenic		0.5000	0.4855		97	80-120	73-127	
Barium		0.5000	0.5277		106	80-120	73-127	
Beryllium		0.5000	0.4935		99	80-120	73-127	
Cadmium		0.5000	0.5124		102	80-120	73-127	
Chromium		0.5000	0.5167		103	80-120	73-127	
Cobalt		0.5000	0.5307		106	80-120	73-127	
Copper		0.5000	0.5166		103	80-120	73-127	
Lead		0.5000	0.5176		104	80-120	73-127	
Molybdenum		0.5000	0.4974		99	80-120	73-127	
Nickel		0.5000	0.5362		107	80-120	73-127	
Selenium		0.5000	0.4818		96	80-120	73-127	
Silver		0.2500	0.2525		101	80-120	73-127	
Thallium		0.5000	0.5251		105	80-120	73-127	
Vanadium		0.5000	0.4938		99	80-120	73-127	
Zinc		0.5000	0.5132		103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



Geosyntec Consultants
Date Received:
08/25/16
924 Anacapa Street, Suite 4A
Work Order:
16-08-1807
Santa Barbara, CA 93101-2177
Preparation:
Method:
EPA 7470A
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7962	LCS	Aqueous	Mercury 04	08/29/16	08/29/16 20:52	160829LA1
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec.	CL Qualifiers
Mercury		0.01000	0.009182	92	80-120	)



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Work Order:
16-08-1807
Santa Barbara, CA 93101-2177
Preparation:
Method:
EPA 7470A

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Quality Control Sample ID	Type	Matrix	Instrument I	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-815	LCS	Aqueous	Mercury 04	08/29/16	08/29/16 20:52	160829LA1F
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec.	. CL Qualifiers
Mercury		0.01000	0.009182	92	80-120	)



 Geosyntec Consultants
 Date Received:
 08/25/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-08-1807

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7471A Total

 Method:
 EPA 7471A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date	Prepared	Date Analyzed	LCS Batch N	lumber
099-16-272-2474	LCS	Solid	Mercury 04	08/3	0/16	08/30/16 13:15	160830L01	
<u>Parameter</u>		Spike Added	Conc. Recove	<u>ered</u>	LCS %Re	ec. %Rec	. CL	<u>Qualifiers</u>
Mercury		0.8350	0.7200		86	85-12	1	



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	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Nu	mber
099-12-620-44	LCS	Solid	GC/MS CCC	09/06/16	09/07/16 10:12	160906L05B	
<u>Parameter</u>	<u>Spike</u>	Added Conc	. Recovered LCS	8 %Rec. <u>%R</u>	tec. CL ME	E CL	<u>Qualifiers</u>
2,6-Dichlorophenol	5.000	4.479	90	60-	110 52	·-118	
Acenaphthene	5.000	4.309	86	45-	110 34	-121	
Acenaphthylene	5.000	4.234	85	45-	105 35	-115	
Aniline	5.000	5.797	116	60-	140 47	'-153	
Anthracene	5.000	4.431	89	55-	105 47	'-113	
Azobenzene	5.000	4.304	86	60-	140 47	'-153	
Benzidine	5.000	4.185	84	60-	140 47	'-153	
Benzo (a) Anthracene	5.000	4.394	88	60-	110 52	·-118	
Benzo (a) Pyrene	5.000	4.968	99	60-	110 52	-118	
Benzo (b) Fluoranthene	5.000	4.798	96	60-	115 51	-124	
Benzo (g,h,i) Perylene	5.000	4.689	94	60-	125 49	-136	
Benzo (k) Fluoranthene	5.000	4.750	95	60-	125 49	-136	
Benzoic Acid	5.000	3.395	68	30-	140 12	-158	
Benzyl Alcohol	5.000	4.190	84	60-	125 49	-136	
Bis(2-Chloroethoxy) Methane	5.000	4.203	84	60-	110 52	·-118	
Bis(2-Chloroethyl) Ether	5.000	4.194	84	60-	105 52	-112	
Bis(2-Chloroisopropyl) Ether	5.000	4.061	81	60-	115 51	-124	
Bis(2-Ethylhexyl) Phthalate	5.000	4.271	85	60-	125 49	-136	
4-Bromophenyl-Phenyl Ether	5.000	4.343	87	60-	115 51	-124	
Butyl Benzyl Phthalate	5.000	4.183	84	60-	125 49	-136	
4-Chloro-3-Methylphenol	5.000	4.402	. 88	61-	115 52	-124	
4-Chloroaniline	5.000	5.975	119	60-	140 47	'-153	
2-Chloronaphthalene	5.000	4.227	85	60-	105 52	-112	
2-Chlorophenol	5.000	4.624	92	60-	105 52	·-112	
4-Chlorophenyl-Phenyl Ether	5.000	4.153	83	60-	110 52	·-118	
Chrysene	5.000	4.308	86	60-	110 52	·-118	
Di-n-Butyl Phthalate	5.000	4.224	84	60-	110 52	·-118	
Di-n-Octyl Phthalate	5.000	4.624	92	60-	130 48	-142	
Dibenz (a,h) Anthracene	5.000	4.464	89	60-	125 49	-136	
Dibenzofuran	5.000	4.373	87	60-	105 52	!-112	
1,2-Dichlorobenzene	5.000	4.234	85	60-	95 54	-101	
1,3-Dichlorobenzene	5.000			60-	100 53	-107	
1,4-Dichlorobenzene	5.000			61-	105 54	-112	
3,3'-Dichlorobenzidine	5.000					'-153	
2,4-Dichlorophenol	5.000				110 52	<u>-</u> 118	
Diethyl Phthalate	5.000					-124	
Dimethyl Phthalate	5.000					-118	
2,4-Dimethylphenol	5.000			60-		-112	



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<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
4,6-Dinitro-2-Methylphenol	5.000	3.708	74	60-135	48-148	
2,4-Dinitrophenol	5.000	3.066	61	60-130	48-142	
2,4-Dinitrotoluene	5.000	4.508	90	50-115	39-126	
2,6-Dinitrotoluene	5.000	4.444	89	60-110	52-118	
Fluoranthene	5.000	4.352	87	60-115	51-124	
Fluorene	5.000	4.252	85	60-110	52-118	
Hexachloro-1,3-Butadiene	5.000	4.039	81	60-115	51-124	
Hexachlorobenzene	5.000	4.203	84	60-120	50-130	
Hexachlorocyclopentadiene	5.000	4.656	93	60-140	47-153	
Hexachloroethane	5.000	4.300	86	60-110	52-118	
Indeno (1,2,3-c,d) Pyrene	5.000	4.423	88	60-120	50-130	
Isophorone	5.000	4.106	82	60-110	52-118	
2-Methylnaphthalene	5.000	4.417	88	45-105	35-115	
1-Methylnaphthalene	5.000	3.924	78	60-140	47-153	
2-Methylphenol	5.000	4.573	91	60-105	52-112	
3/4-Methylphenol	10.00	9.157	92	60-105	52-112	
N-Nitroso-di-n-propylamine	5.000	4.055	81	64-115	56-124	
N-Nitrosodimethylamine	5.000	4.443	89	60-115	51-124	
N-Nitrosodiphenylamine	5.000	5.039	101	60-115	51-124	
Naphthalene	5.000	4.165	83	60-105	52-112	
4-Nitroaniline	5.000	4.344	87	60-115	51-124	
3-Nitroaniline	5.000	4.216	84	60-110	52-118	
2-Nitroaniline	5.000	4.626	93	45-120	32-132	
Nitrobenzene	5.000	4.343	87	60-115	51-124	
4-Nitrophenol	5.000	4.192	84	38-140	21-157	
2-Nitrophenol	5.000	4.657	93	60-110	52-118	
Pentachlorophenol	5.000	3.448	69	38-120	24-134	
Phenanthrene	5.000	4.508	90	60-110	52-118	
Phenol	5.000	4.626	93	59-125	48-136	
Pyrene	5.000	4.268	85	51-100	43-108	
Pyridine	5.000	4.004	80	60-140	47-153	
1,2,4-Trichlorobenzene	5.000	4.134	83	58-110	49-119	
2,4,6-Trichlorophenol	5.000	4.445	89	60-110	52-118	
2,4,5-Trichlorophenol	5.000	4.575	91	60-110	52-118	

Total number of LCS compounds: 72

Total number of ME compounds: 0

Total number of ME compounds allowed: 4

LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 08/25/16 16-08-1807 EPA 5030C EPA 8260B

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Quality Control Sample ID	Туре	Matrix	Instrument		ed Date Analyze	d LCS Batch N	umber
099-14-314-623	LCS	Solid	GC/MS Q	08/30/16	08/30/16 09:3	4 160830L005	
<u>Parameter</u>	<u> </u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone		50.00	42.63	85		60-140	
Benzene		50.00	43.78	88	78-120	71-127	
Bromobenzene	:	50.00	49.06	98	70-130	60-140	
Bromochloromethane	;	50.00	44.36	89	70-130	60-140	
Bromodichloromethane	:	50.00	44.70	89	70-130	60-140	
Bromoform	;	50.00	45.82	92	70-130	60-140	
Bromomethane	!	50.00	43.15	86	70-130	60-140	
2-Butanone	;	50.00	46.50	93	70-130	60-140	
n-Butylbenzene	!	50.00	47.22	94	77-123	69-131	
sec-Butylbenzene		50.00	47.78	96	70-130	60-140	
tert-Butylbenzene	!	50.00	47.73	95	70-130	60-140	
Carbon Disulfide		50.00	47.10	94	70-130	60-140	
Carbon Tetrachloride		50.00	42.73	85	49-139	34-154	
Chlorobenzene		50.00	46.23	92	79-120	72-127	
Chloroethane		50.00	46.42	93	70-130	60-140	
Chloroform		50.00	40.80	82	70-130	60-140	
Chloromethane		50.00	44.90	90	70-130	60-140	
2-Chlorotoluene		50.00	48.09	96	70-130	60-140	
4-Chlorotoluene		50.00	46.19	92	70-130	60-140	
Dibromochloromethane		50.00	44.80	90	70-130	60-140	
1,2-Dibromo-3-Chloropropane		50.00	52.24	104	70-130	60-140	
1,2-Dibromoethane	:	50.00	46.70	93	70-130	60-140	
Dibromomethane		50.00	46.37	93	70-130	60-140	
1,2-Dichlorobenzene	:	50.00	46.44	93	75-120	68-128	
1,3-Dichlorobenzene	:	50.00	46.90	94	70-130	60-140	
1,4-Dichlorobenzene	:	50.00	45.54	91	70-130	60-140	
Dichlorodifluoromethane	!	50.00	48.99	98	70-130	60-140	
1,1-Dichloroethane	!	50.00	43.45	87	70-130	60-140	
1,2-Dichloroethane	!	50.00	41.38	83	70-130	60-140	
1,1-Dichloroethene	!	50.00	44.62	89	74-122	66-130	
c-1,2-Dichloroethene	!	50.00	43.66	87	70-130	60-140	
-1,2-Dichloroethene	!	50.00	46.58	93	70-130	60-140	
1,2-Dichloropropane		50.00	45.84			73-121	
1,3-Dichloropropane		50.00	44.48			60-140	
2,2-Dichloropropane		50.00	42.64			60-140	
1,1-Dichloropropene		50.00	43.38			60-140	
c-1,3-Dichloropropene		50.00	48.11			60-140	
t-1,3-Dichloropropene		50.00	46.51			60-140	



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<u>Parameter</u>	Spike Added	Conc. Recovered	<u> </u>	%Rec. CL	ME CL	<u>Qualifiers</u>
Ethylbenzene	50.00	47.80	96	76-120	69-127	
2-Hexanone	50.00	54.09	108	70-130	60-140	
Isopropylbenzene	50.00	50.39	101	70-130	60-140	
p-Isopropyltoluene	50.00	48.27	97	70-130	60-140	
Methylene Chloride	50.00	41.72	83	70-130	60-140	
4-Methyl-2-Pentanone	50.00	55.87	112	70-130	60-140	
Naphthalene	50.00	48.25	97	70-130	60-140	
n-Propylbenzene	50.00	48.23	96	70-130	60-140	
Styrene	50.00	50.02	100	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	45.20	90	70-130	60-140	
Tetrachloroethene	50.00	46.99	94	70-130	60-140	
Toluene	50.00	49.40	99	77-120	70-127	
1,2,3-Trichlorobenzene	50.00	48.14	96	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.22	100	70-130	60-140	
1,1,1-Trichloroethane	50.00	42.36	85	70-130	60-140	
1,1,2-Trichloroethane	50.00	44.23	88	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.87	94	70-130	60-140	
Trichloroethene	50.00	48.02	96	70-130	60-140	
1,2,3-Trichloropropane	50.00	48.04	96	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	47.56	95	70-130	60-140	
Trichlorofluoromethane	50.00	43.34	87	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	48.33	97	70-130	60-140	
Vinyl Acetate	50.00	15.98	32	70-130	60-140	X
Vinyl Chloride	50.00	50.31	101	68-122	59-131	
p/m-Xylene	100.0	95.05	95	70-130	60-140	
o-Xylene	50.00	47.97	96	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	45.33	91	77-120	70-127	
· · · · · · · · · · · · · · · · · · ·						

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



## **Sample Analysis Summary Report**

Work Order: 16-08-1807	Page 1 of 1			
<u>Method</u>	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 7471A	EPA 7471A Total	776	Mercury 04	1
EPA 8260B	EPA 5030C	1055	GC/MS Q	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



## **Glossary of Terms and Qualifiers**

Work Order: 16-08-1807 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>				
*	See applicable analysis comment.				
<	Less than the indicated value.				
>	Greater than the indicated value.				
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.				
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.				
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.				
4	The MS/MSD RPD was out of control due to suspected matrix interference.				
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.				
6	Surrogate recovery below the acceptance limit.				
7	Surrogate recovery above the acceptance limit.				
В	Analyte was present in the associated method blank.				
BU	Sample analyzed after holding time expired.				
BV	Sample received after holding time expired.				
CI	See case narrative.				
E	Concentration exceeds the calibration range.				
ET	Sample was extracted past end of recommended max. holding time.				
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.				
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).				
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).				
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.				
JA	Analyte positively identified but quantitation is an estimate.				
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).				
ND	Parameter not detected at the indicated reporting limit.				
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.				

- Χ % Recovery and/or RPD out-of-range.

SG

Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

The sample extract was subjected to Silica Gel treatment prior to analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN OF CUSTODY RECORD

8-23 + 8-24 2016

DATE:

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このこのでは、これでは、これでは、これでは、これでは、これでは、これでは、これでは、これ	. Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494	ouner service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

Page 67 of 73 100 Time: Kenjo Agustsson SAMPLER(S): (PRINT) P 8-24-1608,25-16 Date: SB0794 REQUESTED ANALYSES Please check box or fill in blank as needed PAGE: でに X X PROJECT CONTACT Kevin Coffman CG Roxane (Signature/Affiliation) Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) لر د Field Filtered Spe 93101 ■ STANDARD X Unpreserved ZIP: 5 NO. OF CONT. N 2 N KCoffman@geosyntec.com 5 3 3 3 MATRIX S ☐ 5 DAYS S 0723 0726 0720 1230 1415 87 1545 0723 46 TIME TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD") ☐ 72 HR SAMPLING \_\_\_1\_\_\_ Cooler(s) with this COC shipped via FedEx 9-52-8 DATE ☐ 48 HR 8-62-W-155-160823-PUP 924 Anacapa St. Suite 4A **Geosyntec Consultants** -62-m-15.5-10823 18-02-W-25,5-1688 B-01-5-15-16083 B-01-5-05-160823 B-02-40-12.75-160823 8-02-m-23-160823 B-ci-S-18-160823 8-01-5-10-160823 GLOBAL ID: -02-160823 ☐ 24 HR SAMPLEID Relinquished by: (Signature) Relinquished by: (Signature) Santa Barbara SPECIAL INSTRUCTIONS: 805-897-3800 COELT EDF ☐ SAME DAY ADDRESS: USE ONLY SIT 7440 For c

Return to Contents

06/02/14 Revision

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**CHAIN OF CUSTODY RECORD** 8-73 48-24, 2016 Kenjo Agustsson SAMPLER(S): (PRINT Я SB0794 REQUESTED ANALYSES Please check box or fill in blank as needed. DATE: PAGE: 16-08-1807 WO#/LAB USE ONLY PROJECT CONTACT: Kevin Coffman CG Roxane Metals, Total (lab filtered) Metals, Dissolved (Field Filtered) Field Filtered LOG CODE: 93101 **⊞** STANDARD Unpreserved ZIP: S o S ONT. courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us KCoffman@geosyntec.com MATRIX ☐ 5 DAYS TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD") TIME 7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 ☐ 72 HR Calscience SAMPLING \_\_\_\_1\_\_\_ Cooler(s) with this COC shipped via FedEx 8-23-16 DATE ☐ 48 HR 924 Anacapa St. Suite 4A **Geosyntec Consultants** GLOBAL ID: 55-01-160823 ☐ 24 HR SAMPLE ID Santa Barbara SPECIAL INSTRUCTIONS: 805-897-3800 COELT EDF ☐ SAME DAY ADDRESS: LAB USE ONLY

Return to Contents

06/02/14 Revision

10/2 Time:

08~28~16 Date:

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Sign Contraction

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Received by: (Signature/Affiliation)

Relinquished by: (Signature)

Relinquished by

Relinquished by: (Signature)

Received by: (Signature/Affiliation)

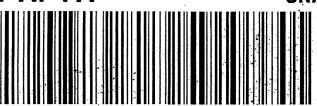
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	<b>PECEX.</b> NEW Package Express. US Airbill	FedEx Tracking Number	3188 4	139	form 0200	Recipient's Copy
1	From Date 8-24-76.				4 Express Package Service • To most locations.  NOTE: Service order has changed. Please select carefully.	Packages up to 150 lbs. For packages over 150 lbs., use the new Folick Express Freight US Airbill.
	Sender's Keylo As 1550		805 897	-3800		or 3 Business Days
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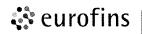
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FID 5163113 24AUG16 TYKA 539C1/1378/9768



Calscience

WORK ORDER NUMBER: 16-08- 1607

		SAMPLE RECEIPT C	PUECKLISI	C	OULER	$\leftarrow$	UF <del>/</del>
CLIENT:	Gosyntee			DA	TE: <b>08</b>	/	_/ 2016
Thermomete  Sampl  Sampl	er ID: SC2A (CF: 0.0°C); e(s) outside temperature e(s) outside temperature	0°C, not frozen except sedime Femperature (w/o CF):	<b>2_</b> °C (w/ CF): () ed on same day c			Sal	
CUSTODY S Cooler Sample(s)	SEAL:  □ Present and Intact □ Present and Intact	☐ Present but Not Intact☐ Present but Not Intact☐	Not Present Not Present	□ N/A □ N/A		ed by: . ed by: .	300 77 1
SAMPLE C	ONDITION:				Yes	No	N/A
Chain-of-Cu	stody (COC) document(s	received with samples			. 1		
COC docum	nent(s) received complete				. 🛮		
□ No an Sampler's n	alysis requested □ Not r ame indicated on COC	e 🗆 Matrix 🗀 Number of cor elinquished 🗆 No relinquished	d date 🛭 No relir		. 1		
1 '		with COC					
1		d condition					
1		sted					
1		equested					
Samples red	ceived within holding time				. 🗷		
,	•	ses received within 15-minute					
		ssolved Sulfide					8
		d on COC and/or sample conta	iner	••••••	. 🗆	Ø	
□ Volatil Container(s □ Volatil	e Organics	eceived for certain analyses als □ Dissolved Metals of headspace	ed Oxygen (SM 45	500)	. 🗆	0	<i>P</i> ′
1	,		_		. 🗆		<b>D</b> ′
CONTAINE		- T 100D   T 100D   T	• •	nk Lot Numb			
☐ 125PBzni ☐ 500PB ☐ Solid: ☐ 45	na □ 250AGB □ 250CG □ 1AGB □ 1AGBna₂ □ 1 2CGJ ☑ 802CGJ □ 1602	na₂ □ 100PJ □ 100PJna₂ □ B □ 250CGBs □ 250PB □ 2 AGBs □ 1PB □ 1PBna □ 2 CGJ □ Sleeve (□ □ ) □ Endont Tube □ PUF □ □	250PBn+□ 500A0 250 PBn□ Cores®() □	B □ 500AG □ □ □ I TerraCores <sup>®</sup>	J 🗆 500 = '()	AGJs ]	
Container: A	= Amber, <b>B</b> = Bottle, <b>C</b> = Cle	ear, <b>E</b> = Envelope, <b>G</b> = Glass, <b>J</b> = HCl, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOH, <b>na</b> <sub>2</sub>	Jar, <b>P</b> = Plastic, and	I <b>Z</b> = Ziploc/Re	sealable l	Зад	- 1

 $\mathbf{s} = H_2SO_4$ ,  $\mathbf{u} = \text{ultra-pure}$ ,  $\mathbf{znna} = \text{Zn} (CH_3CO_2)_2 + \text{NaOH}$ 

Reviewed by: \_\_

826

Calscience

WORK ORDER NUMBER: 16-08- 18-07

# **SAMPLE ANOMALY REPORT**

DATE: 08 / 25 / 2016

SAMPLES, CONTAINERS, AND LABELS:	Comments								
☐ Sample(s) NOT RECEIVED but listed on COC									
☐ Sample(s) received but NOT LISTED on COC									
☐ Holding time expired (list client or ECI sample ID and analysis)									
☐ Insufficient sample amount for requested analysis (list analysis)									
☐ Improper container(s) used (list analysis)									
Improper preservative used (list analysis)									
☐ No preservative noted on COC or label (list analysis and notify lab)	(5) to (9) received. 14003								
☐ Sample container(s) not labeled	preserved container								
☐ Client sample label(s) illegible (list container type and analysis)	for Metals (lab filtered)								
☐ Client sample label(s) do not match COC (comment)									
☐ Project information									
☐ Client sample ID ☐ Sampling date and/or time									
□ Number of container(s)  □ Requested analysis  □ Number of container(s)									
☐ Sample container(s) compromised (comment)									
□ Broken									
☐ Water present in sample container									
☐ Air sample container(s) compromised (comment)									
□ Flat									
☐ Very low in volume									
☐ Leaking (not transferred; duplicate bag submitted)									
☐ Leaking (transferred into ECI Tedlar™ bags*)									
□ Leaking (transferred into client's Tedlar™ bags*)									
* Transferred at client's request.									
MISCELLANEOUS: (Describe)	Comments								
· .									
HEADSPACE:									
(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)	(Containers with bubble for other analysis)								
ECI ECI Total ECI ECI Total	ECI ECI Total								
Sample ID Container ID Number** Sample ID Container ID Number**	Sample ID Container ID Number** Requested Analysis								
Comments:	77#								
** Record the total number of containers (i.e., vials or bottles) for the affected sample.	Reviewed by: 8 Vo								

# Contents

#### Hoaibao Nguyen

From: Kevin Coffman [KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:52 PM

To: Hoaibao Nguyen

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Follow Up Flag: Follow up Flag Status: Flagged

Correct. thanks

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]

Sent: Thursday, September 01, 2016 4:51 PM

To: Kevin Coffman

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

No STLC for now but yes to SVOCs, correct?

Best Regards,

Hoaibao (Tina) Nguyen Assistant Project Manager

**From:** Kevin Coffman [mailto:KCoffman@Geosyntec.com]

Sent: Thursday, September 01, 2016 4:31 PM

To: Hoaibao Nguyen

**Cc:** Ryan Smith (<u>r.smith@cgroxane.com</u>)

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,

Please hold the samples. We won't run the samples for STLC until we see the final metals results.

Thanks.

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]

Sent: Thursday, September 01, 2016 3:55 PM

**To:** Kevin Coffman

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

For the soluble metals, it does not look like any of the metals were above the limit for STLC, did you still want us to run the soluble metals? If so, please let me know which elements.

Best Regards,

Hoaibao (Tina) Nguyen

1 Intents

**From:** Kevin Coffman [mailto:KCoffman@Geosyntec.com]

Sent: Thursday, September 01, 2016 3:50 PM

To: Hoaibao Nguyen

**Cc:** Ryan Smith (<u>r.smith@cgroxane.com</u>)

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

#### Tina,

In addition to the VOCs on the 2 soil samples, please analyze them for SVOCs and soluble metals.

#### Standard TAT.

#### Thanks,

Kevin Coffman Geosyntec 805.979.9134

From: Kevin Coffman

Sent: Monday, August 29, 2016 10:51 AM

To: 'Hoaibao Nguyen'

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

#### Tina,

As a follow up, please run soil samples SS-01-160823 and SS-02-160823 for VOCs.

#### Thanks.

#### Kevin Coffman Geosyntec 805.979.9134

From: Kevin Coffman

Sent: Thursday, August 25, 2016 4:38 PM

To: 'Hoaibao Nguyen'

Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Correct. Please run all water samples on 3 day TAT.

#### Thank you.

Kevin Coffman Geosyntec 805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNquyen@eurofinsUS.com]

Sent: Thursday, August 25, 2016 4:37 PM

**To:** Kevin Coffman

Subject: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Hi Kevin,

Could you please confirm that you wanted all water samples listed on COC ran on a 3day TAT.



## Calscience



# **WORK ORDER NUMBER: 16-09-0004**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Monde

Suite 4A

Santa Barbara, CA 93101-2177

ResultLink )

Email your PM >

Approved for release on 09/13/2016 by:

Stephen Nowak Project Manager

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name:	CG Roxane / SB0794
Work Order Number:	16-09-0004

1	Work Order Narrative	3
2	Sample Summary	4
3	Detections Summary	5
4	Client Sample Data. 4.1 EPA 6020/7470A CAC Title 22 Metals, Total (Aqueous). 4.2 EPA 6020/7470A CAC Title 22 Metals, Filtered (Aqueous). 4.3 EPA 7470A Mercury (Aqueous). 4.4 EPA 7470A Mercury (Aqueous).	9 16 23 24
5	Quality Control Sample Data.  5.1 MS/MSD.  5.2 PDS/PDSD.  5.3 LCS/LCSD.	25 25 27 28
6	Sample Analysis Summary	32
7	Glossary of Terms and Qualifiers	33
8	Chain-of-Custody/Sample Receipt Form	34



#### **Work Order Narrative**

Work Order: 16-09-0004 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/01/16. They were assigned to Work Order 16-09-0004.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



#### **Sample Summary**

Client: Geosyntec Consultants

Work Order:

16-09-0004

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name:

CG Roxane / SB0794

PO Number:

Date/Time

09/01/16 10:40

Received:

Number of 12

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-13-W-12.5-160829	16-09-0004-1	08/29/16 16:00	2	Aqueous
MW-12-W-11.5-160829	16-09-0004-2	08/29/16 14:30	2	Aqueous
MW-12-W-8-160829	16-09-0004-3	08/29/16 14:00	2	Aqueous
MW-14-W-18.5-160830	16-09-0004-4	08/30/16 10:45	2	Aqueous
MW-15-W-14-160830	16-09-0004-5	08/30/16 15:15	2	Aqueous
MW-15-W-24-160830	16-09-0004-6	08/30/16 15:00	2	Aqueous



16-09-0004

Client: Geosyntec Consultants Work Order:

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/01/16

Attn: Kevin Coffman Page 1 of 4

Client SampleID						
Analyte	Result	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
MW-13-W-12.5-160829 (16-09-0004-1)						
Arsenic	0.0274		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0112		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0224		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0253		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0576		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.290		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.0248		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0109		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.178		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.0325		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0252		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.0254		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0552		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.136		0.0500	mg/L	EPA 6020	EPA 3020A Total
MW-12-W-11.5-160829 (16-09-0004-2)						
Antimony	0.00632		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0351		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0351		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00206		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00553		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0282		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.282		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	5.27		0.0100	mg/L	EPA 6020	EPA 3020A Total
Beryllium	0.0108		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cadmium	0.0218		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.277		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.201		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	1.77		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.444		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0752		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.394		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.407		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	1.60		0.0500	mg/L	EPA 6020	EPA 3020A Total

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0004

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/01/16

Attn: Kevin Coffman Page 2 of 4

Manifer	Client SampleID					
Antimony         0.00138         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0551         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0238         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Chromium         0.00103         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0290         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Filt.           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020	<u>Analyte</u>	Result	Qualifiers RL	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
Arsenic         0.0551         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0238         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Chromium         0.00103         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0290         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chyper         0.803         0.0100         mg/L         EPA 6020	MW-12-W-8-160829 (16-09-0004	-3)				
Barium         0.0238         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Chromium         0.00103         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0290         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020 <t< td=""><td>Antimony</td><td>0.00138</td><td>0.001</td><td>00 mg/L</td><td>EPA 6020</td><td>EPA 3005A Filt.</td></t<>	Antimony	0.00138	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Chromium         0.00103         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0290         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020	Arsenic	0.0551	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum         0.0290         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.0257         0.0100         mg/L         EPA 6020	Barium	0.0238	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Nickel         0.00175         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA	Chromium	0.00103	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Vanadium         0.00405         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copatr         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         Vanadium         0.0283         0.00100	Molybdenum	0.0290	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Zinc         0.0395         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         Vanadium         0.050         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0283         0.00100         mg/L         EPA 6	Nickel	0.00175	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Arsenic         0.180         0.0100         mg/L         EPA 6020         EPA 3020A Total           Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         V         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Fil	Vanadium	0.00405	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Barium         2.32         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.	Zinc	0.0395	0.005	00 mg/L	EPA 6020	EPA 3005A Filt.
Cadmium         0.0141         0.0100         mg/L         EPA 6020         EPA 3020A Total           Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.	Arsenic	0.180	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Chromium         0.148         0.0100         mg/L         EPA 6020         EPA 3020A Total           Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         EPA 6020         EPA 3020A Total         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         V         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt. <td>Barium</td> <td>2.32</td> <td>0.010</td> <td>0 mg/L</td> <td>EPA 6020</td> <td>EPA 3020A Total</td>	Barium	2.32	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Cobalt         0.0664         0.0100         mg/L         EPA 6020         EPA 3020A Total           Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           Arsenic         0.0116         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00566         0.00100         mg/L <td< td=""><td>Cadmium</td><td>0.0141</td><td>0.010</td><td>0 mg/L</td><td>EPA 6020</td><td>EPA 3020A Total</td></td<>	Cadmium	0.0141	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Copper         0.803         0.0100         mg/L         EPA 6020         EPA 3020A Total           Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         Vanadium         0.0116         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Wanadium         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.0125         0.00500	Chromium	0.148	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Lead         0.133         0.0100         mg/L         EPA 6020         EPA 3020A Total           Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         Vanadium         0.0116         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00253         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500	Cobalt	0.0664	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Molybdenum         0.0438         0.0100         mg/L         EPA 6020         EPA 3020A Total           Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         Vanadium         0.0116         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100	Copper	0.803	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Nickel         0.175         0.0100         mg/L         EPA 6020         EPA 3020A Total           Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         W         FRA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3005A Filt.	Lead	0.133	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Vanadium         0.257         0.0100         mg/L         EPA 6020         EPA 3020A Total           Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         W         FPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3005A Filt.	Molybdenum	0.0438	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Zinc         0.478         0.0500         mg/L         EPA 6020         EPA 3020A Total           MW-14-W-18.5-160830 (16-09-0004-4)         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Arsenic         0.0283         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3005A Filt.	Nickel	0.175	0.010	0 mg/L	EPA 6020	EPA 3020A Total
MW-14-W-18.5-160830 (16-09-0004-4)         Antimony       0.0116       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Arsenic       0.0283       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Barium       0.0314       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Copper       0.00110       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Molybdenum       0.0566       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Vanadium       0.00553       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Zinc       0.0125       0.00500       mg/L       EPA 6020       EPA 3005A Filt.         Antimony       0.0249       0.0100       mg/L       EPA 6020       EPA 3005A Total	Vanadium	0.257	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Antimony       0.0116       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Arsenic       0.0283       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Barium       0.0314       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Copper       0.00110       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Molybdenum       0.0566       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Vanadium       0.00553       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Zinc       0.0125       0.00500       mg/L       EPA 6020       EPA 3005A Filt.         Antimony       0.0249       0.0100       mg/L       EPA 6020       EPA 3020A Total	Zinc	0.478	0.050	0 mg/L	EPA 6020	EPA 3020A Total
Arsenic       0.0283       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Barium       0.0314       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Copper       0.00110       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Molybdenum       0.0566       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Vanadium       0.00553       0.00100       mg/L       EPA 6020       EPA 3005A Filt.         Zinc       0.0125       0.00500       mg/L       EPA 6020       EPA 3005A Filt.         Antimony       0.0249       0.0100       mg/L       EPA 6020       EPA 3020A Total	MW-14-W-18.5-160830 (16-09-00	004-4)				
Barium         0.0314         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3020A Total	Antimony	0.0116	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Copper         0.00110         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3020A Total	Arsenic	0.0283	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum         0.0566         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3020A Total	Barium	0.0314	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Vanadium         0.00553         0.00100         mg/L         EPA 6020         EPA 3005A Filt.           Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3020A Total	Copper	0.00110	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Zinc         0.0125         0.00500         mg/L         EPA 6020         EPA 3005A Filt.           Antimony         0.0249         0.0100         mg/L         EPA 6020         EPA 3020A Total	Molybdenum	0.0566	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
Antimony 0.0249 0.0100 mg/L EPA 6020 EPA 3020A Total	Vanadium	0.00553	0.001	00 mg/L	EPA 6020	EPA 3005A Filt.
,	Zinc	0.0125	0.005	00 mg/L	EPA 6020	EPA 3005A Filt.
Arsenic 0.0692 0.0100 mg/L EPA 6020 EPA 3020A Total	Antimony	0.0249	0.010	0 mg/L	EPA 6020	EPA 3020A Total
	Arsenic	0.0692	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Barium 2.58 0.0100 mg/L EPA 6020 EPA 3020A Total	Barium	2.58	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Cobalt 0.0201 0.0100 mg/L EPA 6020 EPA 3020A Total	Cobalt	0.0201	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Copper 0.0154 0.0100 mg/L EPA 6020 EPA 3020A Total	Copper	0.0154	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Molybdenum 0.0295 0.0100 mg/L EPA 6020 EPA 3020A Total	Molybdenum	0.0295	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Nickel 0.103 0.0100 mg/L EPA 6020 EPA 3020A Total	Nickel	0.103	0.010	0 mg/L	EPA 6020	EPA 3020A Total
Mercury 0.00117 0.000500 mg/L EPA 7470A EPA 7470A Total	Mercury	0.00117	0.000	500 mg/L	EPA 7470A	EPA 7470A Total

<sup>\*</sup> MDL is shown



Work Order:

16-09-0004

Client: Geosyntec Consultants

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/01/16

Attn: Kevin Coffman Page 3 of 4

Client SampleID						
<u>Analyte</u>	Result	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
MW-15-W-14-160830 (16-09-0004-5)						
Antimony	0.0102		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.201		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0390		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0887		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0327		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0197		0.0100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	1.23		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	3.04		0.0100	mg/L	EPA 6020	EPA 3020A Total
Beryllium	0.0121		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.472		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.130		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.601		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.321		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.148		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.329		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.348		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	1.94		0.0500	mg/L	EPA 6020	EPA 3020A Total
MW-15-W-24-160830 (16-09-0004-6)						
Antimony	0.00508		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0629		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0230		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00131		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0541		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00107		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0111		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.404		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	1.38		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.469		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0650		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.331		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.0889		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0731		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.246		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.295		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.777		0.0500	mg/L	EPA 6020	EPA 3020A Total

<sup>\*</sup> MDL is shown





Client: Geosyntec Consultants

Work Order:

16-09-0004

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name:

CG Roxane / SB0794

Received:

09/01/16

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Client SampleID

<u>Analyte</u> <u>Result</u> <u>Qualifiers</u> <u>RL</u> <u>Units</u> <u>Method</u> <u>Extraction</u>

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-16	60829	16-09-0004-1-B	08/29/16 16:00	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:36	160907LA3
Comment(s): -	The reporting limit is eleva	ated resulting from m	natrix interferen	ce.				
<u>Parameter</u>			<u>Result</u>	RL	<u> </u>	<u>DF</u>	<u>Qua</u>	<u>lifiers</u>
Antimony			ND	0.0	0100	10.0		
Arsenic			0.0576	0.0	100	10.0		
Barium			0.290	0.0	100	10.0		
Beryllium			ND	0.0	100	10.0		
Cadmium			ND	0.0	100	10.0		
Chromium			0.0248	0.0	100	10.0		
Cobalt			0.0109	0.0	100	10.0		
Copper			0.178	0.0	100	10.0		
Lead			0.0325	0.0	100	10.0		
Molybdenum			0.0252	0.0	100	10.0		
Nickel			0.0254	0.0	100	10.0		
Selenium			ND	0.0	100	10.0		
Silver			ND	0.0	100	10.0		
Thallium			ND	0.0	0100	10.0		
Vanadium			0.0552	0.0	0100	10.0		
Zinc			0.136	0.0	500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	16-09-0004-2-B	08/29/16 14:30	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:38	160907LA3
Comment(s): - The reporting limit is eleva	ated resulting from n	natrix interferen	ce.				
<u>Parameter</u>		Result	RL	<u> </u>	<u>DF</u>	<u>Qua</u>	<u>lifiers</u>
Antimony		ND	0.0	)100	10.0		
Arsenic		0.282	0.0	0100	10.0		
Barium		5.27	0.0	)100	10.0		
Beryllium		0.0108	0.0	0100	10.0		
Cadmium		0.0218	0.0	0100	10.0		
Chromium		0.277	0.0	)100	10.0		
Cobalt		0.201	0.0	)100	10.0		
Copper		1.77	0.0	0100	10.0		
Lead		0.444	0.0	)100	10.0		
Molybdenum		0.0752	0.0	)100	10.0		
Nickel		0.394	0.0	0100	10.0		
Selenium		ND	0.0	)100	10.0		
Silver		ND	0.0	100	10.0		
Thallium		ND	0.0	100	10.0		
Vanadium		0.407	0.0	100	10.0		
Zinc		1.60	0.0	)500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

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Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	16-09-0004-3-B	08/29/16 14:00	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:41	160907LA3
Comment(s): - The reporting limit is	elevated resulting from r	natrix interferen	ce.				
<u>Parameter</u>		<u>Result</u>	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	100	10.0		
Arsenic		0.180	0.0	100	10.0		
Barium		2.32	0.0	100	10.0		
Beryllium		ND	0.0	100	10.0		
Cadmium		0.0141	0.0	100	10.0		
Chromium		0.148	0.0	100	10.0		
Cobalt		0.0664	0.0	100	10.0		
Copper		0.803	0.0	100	10.0		
Lead		0.133	0.0	100	10.0		
Molybdenum		0.0438	0.0	100	10.0		
Nickel		0.175	0.0	100	10.0		
Selenium		ND	0.0	100	10.0		
Silver		ND	0.0	100	10.0		
Thallium		ND	0.0	100	10.0		
Vanadium		0.257	0.0	100	10.0		
Zinc		0.478	0.0	500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample N	Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
		Number	Collected			Prepared	Analyzed	
MW-14-W-18.5	-160830	16-09-0004-4-B	08/30/16 10:45	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:43	160907LA3
Comment(s):	- The reporting limit	t is elevated resulting from r	natrix interferen	ce.				
<u>Parameter</u>			<u>Result</u>	RL	<u> </u>	<u>DF</u>	Qua	<u>llifiers</u>
Antimony			0.0249	0.0	)100	10.0		
Arsenic			0.0692	0.0	100	10.0		
Barium			2.58	0.0	100	10.0		
Beryllium			ND	0.0	100	10.0		
Cadmium			ND	0.0	100	10.0		
Chromium			ND	0.0	100	10.0		
Cobalt			0.0201	0.0	100	10.0		
Copper			0.0154	0.0	100	10.0		
Lead			ND	0.0	100	10.0		
Molybdenum			0.0295	0.0	100	10.0		
Nickel			0.103	0.0	100	10.0		
Selenium			ND	0.0	100	10.0		
Silver			ND	0.0	100	10.0		
Thallium			ND	0.0	100	10.0		
Vanadium			ND	0.0	100	10.0		
Zinc			ND	0.0	)500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample Nu	mber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160	9830	16-09-0004-5-B	08/30/16 15:15	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:46	160907LA3
Comment(s):	- The reporting limit is eleva	ated resulting from m	atrix interference	ce.				•
<u>Parameter</u>			<u>Result</u>	RL	<b>=</b>	<u>DF</u>	<u>Qua</u>	<u>lifiers</u>
Antimony			ND	0.0	0100	10.0		
Arsenic			1.23	0.0	0100	10.0		
Barium			3.04	0.0	0100	10.0		
Beryllium			0.0121	0.0	0100	10.0		
Cadmium			ND	0.0	0100	10.0		
Chromium			0.472	0.0	0100	10.0		
Cobalt			0.130	0.0	0100	10.0		
Copper			0.601	0.0	0100	10.0		
Lead			0.321	0.0	0100	10.0		
Molybdenum			0.148	0.0	0100	10.0		
Nickel			0.329	0.0	0100	10.0		
Selenium			ND	0.0	0100	10.0		
Silver			ND	0.0	0100	10.0		
Thallium			ND	0.0	0100	10.0		
Vanadium			0.348	0.0	0100	10.0		
Zinc			1.94	0.0	0500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3020A Total EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample Nu	mber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160	830	16-09-0004-6-B	08/30/16 15:00	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:49	160907LA3
Comment(s):	The reporting limit is elev-	ated resulting from r	natrix interferen	ce.				
<u>Parameter</u>			Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony			ND	0.0	100	10.0		
Arsenic			0.404	0.0	100	10.0		
Barium			1.38	0.0	100	10.0		
Beryllium			ND	0.0	100	10.0		
Cadmium			ND	0.0	100	10.0		
Chromium			0.469	0.0	100	10.0		
Cobalt			0.0650	0.0	100	10.0		
Copper			0.331	0.0	100	10.0		
Lead			0.0889	0.0	100	10.0		
Molybdenum			0.0731	0.0	100	10.0		
Nickel			0.246	0.0	100	10.0		
Selenium			ND	0.0	100	10.0		
Silver			ND	0.0	100	10.0		
Thallium			ND	0.0	100	10.0		
Vanadium			0.295	0.0	100	10.0		
Zinc			0.777	0.0	500	10.0		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5314	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:06	160907LA3
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	16-09-0004-1-A	08/29/16 16:00	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:11	160907LA3F
Parameter	·	Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0274	0.0	00100	1.00		
Barium		0.0112	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0224	0.0	00100	1.00		
Nickel		0.00148	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		0.0253	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	16-09-0004-2-A	08/29/16 14:30	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:41	160907LA3F
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00632	0.0	00100	1.00		
Arsenic		0.111	0.0	00100	1.00		
Barium		0.0351	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0351	0.0	00100	1.00		
Nickel		0.00206	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00553	0.0	00100	1.00		
Zinc		0.0282	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	16-09-0004-3-A	08/29/16 14:00	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:44	160907LA3F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00138	0.0	00100	1.00		
Arsenic		0.0551	0.0	00100	1.00		
Barium		0.0238	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00103	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0290	0.0	00100	1.00		
Nickel		0.00175	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00405	0.0	00100	1.00		
Zinc		0.0395	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14-W-18.5-160830	16-09-0004-4-A	08/30/16 10:45	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:47	160907LA3F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		0.0116	0.0	00100	1.00		
Arsenic		0.0283	0.0	00100	1.00		
Barium		0.0314	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00110	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0566	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00553	0.0	00100	1.00		
Zinc		0.0125	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

09/01/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160830	16-09-0004-5-A	08/30/16 15:15	Aqueous	ICP/MS 03	09/07/16	09/09/16 15:33	160907LA3F
Comment(s): - The re	porting limit is elevated resulting from r	matrix interferen	ce.				
<u>Parameter</u>		<u>Result</u>	RL	1	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.0102	0.0	00200	2.00		
Arsenic		0.201	0.0	00200	2.00		
Barium		0.0390	0.0	00200	2.00		
Beryllium		ND	0.0	00200	2.00		
Cadmium		ND	0.0	00200	2.00		
Chromium		ND	0.0	00200	2.00		
Cobalt		ND	0.0	00200	2.00		
Copper		ND	0.0	00200	2.00		
Lead		ND	0.0	00200	2.00		
Molybdenum		0.0887	0.0	00200	2.00		
Nickel		ND	0.0	00200	2.00		
Selenium		ND	0.0	00200	2.00		
Silver		ND	0.0	00200	2.00		
Thallium		ND	0.0	00200	2.00		
Vanadium		0.0327	0.0	00200	2.00		
Zinc		0.0197	0.0	100	2.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160830	16-09-0004-6-A	08/30/16 15:00	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:52	160907LA3F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00508	0.0	00100	1.00		
Arsenic		0.0629	0.0	00100	1.00		
Barium		0.0230	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00131	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0541	0.0	00100	1.00		
Nickel		0.00107	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0148	0.0	00100	1.00		
Zinc		0.0111	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/01/16 16-09-0004 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1205	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:06	160907LA3F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants			Date Recei	ved:			09/01/16
924 Anacapa Street, Suite 4A	Work Order:						16-09-0004
Santa Barbara, CA 93101-2177		EPA 7470A Total					
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	age 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	16-09-0004-1-B	08/29/16 16:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:19	160907LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-12-W-11.5-160829	16-09-0004-2-B	08/29/16 14:30	Aqueous	Mercury 04	09/07/16	09/07/16 18:21	160907LA1
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-12-W-8-160829	16-09-0004-3-B	08/29/16 14:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:23	160907LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-14-W-18.5-160830	16-09-0004-4-B	08/30/16 10:45	Aqueous	Mercury 04	09/07/16	09/07/16 18:26	160907LA1
<u>Parameter</u>		Result	RL	i	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		0.00117	0.0	000500	1.00		
MW-15-W-14-160830	16-09-0004-5-B	08/30/16 15:15	Aqueous	Mercury 04	09/07/16	09/07/16 18:28	160907LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-15-W-24-160830	16-09-0004-6-B	08/30/16 15:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:30	160907LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
Method Blank	099-04-008-7969	N/A	Aqueous	Mercury 04	09/07/16	09/07/16 17:48	160907LA1
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		



Mercury

## **Analytical Report**

Geosyntec Consultants			Date Recei	ved:			09/01/16	
924 Anacapa Street, Suite 4A			Work Orde	r:			16-09-0004	
Santa Barbara, CA 93101-2177			Preparation	n:		EPA 7470A Filt.		
			Method:				EPA 7470A	
			Units:				mg/L	
Project: CG Roxane / SB0794						Pa	ige 1 of 1	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
MW-13-W-12.5-160829	16-09-0004-1-A	08/29/16 16:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:01	160907LA1F	
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>	
Mercury		ND	0.0	000500	1.00			
MW-12-W-11.5-160829	16-09-0004-2-A	08/29/16 14:30	Aqueous	Mercury 04	09/07/16	09/07/16 18:03	160907LA1F	
<u>Parameter</u>		Result	RL	•	DF	Qua	alifiers	
Mercury		ND	0.0	000500	1.00			
MW-12-W-8-160829	16-09-0004-3-A	08/29/16 14:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:06	160907LA1F	
<u>Parameter</u>		Result	RL	:	DF	Qua	alifiers	
Mercury		ND	0.0	000500	1.00			
MW-14-W-18.5-160830	16-09-0004-4-A	08/30/16 10:45	Aqueous	Mercury 04	09/07/16	09/07/16 18:08	160907LA1F	
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>	
Mercury		ND	0.0	000500	1.00			
MW-15-W-14-160830	16-09-0004-5-A	08/30/16 15:15	Aqueous	Mercury 04	09/07/16	09/07/16 18:15	160907LA1F	
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>	
Mercury		ND	0.0	000500	1.00			
MW-15-W-24-160830	16-09-0004-6-A	08/30/16 15:00	Aqueous	Mercury 04	09/07/16	09/07/16 18:17	160907LA1F	
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>	
Mercury		ND	0.0	000500	1.00			
Method Blank	099-15-763-819	N/A	Aqueous	Mercury 04	09/07/16	09/07/16 17:48	160907LA1F	
Parameter		Result	RL		DF	Qua	alifiers	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

0.000500

1.00

ND



## **Quality Control - Spike/Spike Duplicate**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0004 EPA 3020A Total EPA 6020

09/01/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0082-4	Sample		Aqueous	3	ICP/MS 03	09/07/16	09/08/16	17:49	160907SA3	
16-09-0082-4	Matrix Spike		Aqueous	3	ICP/MS 03	09/07/16	09/08/16	17:38	160907SA3	
16-09-0082-4	Matrix Spike	Duplicate	Aqueous	5	ICP/MS 03	09/07/16	09/08/16	17:41	160907SA3	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Re	MSD c. Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.08938	89	0.08780	88	85-133	2	0-11	
Arsenic	0.005408	0.1000	0.09617	91	0.09622	91	73-127	0	0-11	
Barium	0.1926	0.1000	0.2981	106	0.2875	95	74-128	4	0-10	
Beryllium	ND	0.1000	0.07405	74	0.07732	77	56-122	4	0-11	
Cadmium	ND	0.1000	0.09469	95	0.09557	96	84-114	1	0-8	
Chromium	0.01294	0.1000	0.1043	91	0.1024	89	73-133	2	0-11	
Cobalt	0.004185	0.1000	0.08364	79	0.08823	84	79-121	5	0-10	
Copper	0.01241	0.1000	0.08577	73	0.09114	79	72-108	6	0-10	
Lead	0.005667	0.1000	0.1162	111	0.1161	110	79-121	0	0-10	
Molybdenum	0.008192	0.1000	0.1214	113	0.1206	112	83-137	1	0-10	
Nickel	0.01370	0.1000	0.09144	78	0.09688	83	68-122	6	0-10	
Selenium	0.006084	0.1000	0.09751	91	0.09647	90	59-125	1	0-12	
Silver	ND	0.05000	0.04647	93	0.04362	87	68-128	6	0-14	
Thallium	ND	0.1000	0.1069	107	0.1056	106	73-121	1	0-11	
Vanadium	0.03134	0.1000	0.1179	87	0.1238	92	77-137	5	0-15	
Zinc	0.06293	0.1000	0.1349	72	0.1490	86	43-145	10	0-39	

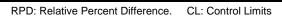


## **Quality Control - Spike/Spike Duplicate**

Geosyntec ConsultantsDate Received:09/01/16924 Anacapa Street, Suite 4AWork Order:16-09-0004Santa Barbara, CA 93101-2177Preparation:EPA 7470A Filt.Method:EPA 7470A

Project: CG Roxane / SB0794 Page 2 of 2

Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
MW-13-W-12.5-160829	Sample		Aqueous	s Me	ercury 04	09/07/16	09/07/16	18:01	160907SA1	
MW-13-W-12.5-160829	Matrix Spike		Aqueous	s Me	ercury 04	09/07/16	09/07/16	17:57	160907SA1	
MW-13-W-12.5-160829	Matrix Spike	Duplicate	Aqueous	s Me	ercury 04	09/07/16	09/07/16	17:59	160907SA1	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01018	102	0.01011	101	55-133	1	0-20	





## **Quality Control - PDS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0004 EPA 3020A Total EPA 6020

09/01/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	N	Matrix	Instrument	Date Prepared Da	ate Analyzed PD: Nur	S/PDSD Batch mber
16-09-0082-4	Sample	A	Aqueous	ICP/MS 03	09/07/16 00:00 09	/08/16 17:49 160	907SA3
16-09-0082-4	PDS	A	Aqueous	ICP/MS 03	09/07/16 00:00 09	/08/16 17:43 160	907SA3
<u>Parameter</u>	·	Sample Conc.	Spike Adde	d PDS Conc	. PDS %Rec.	%Rec. CL	<u>Qualifiers</u>
Antimony		ND	0.1000	0.1000	100	75-125	
Arsenic		0.005408	0.1000	0.09205	87	75-125	
Barium		0.1926	0.1000	0.2910	98	75-125	
Beryllium		ND	0.1000	0.07392	74	75-125	5
Cadmium		ND	0.1000	0.09084	91	75-125	
Chromium		0.01294	0.1000	0.09679	84	75-125	
Cobalt		0.004185	0.1000	0.08613	82	75-125	
Copper		0.01241	0.1000	0.08901	77	75-125	
Lead		0.005667	0.1000	0.1139	108	75-125	
Molybdenum		0.008192	0.1000	0.1192	111	75-125	
Nickel		0.01370	0.1000	0.09429	81	75-125	
Selenium		0.006084	0.1000	0.09098	85	75-125	
Silver		ND	0.05000	0.04464	89	75-125	
Thallium		ND	0.1000	0.1055	105	75-125	
Vanadium		0.03134	0.1000	0.1199	89	75-125	
Zinc		0.06293	0.1000	0.1354	73	75-125	5





#### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0004 EPA 3020A Total EPA 6020

09/01/16

Project: CG Roxane / SB0794

Page 1 of 4

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	ed Date Analyze	ed LCS Batch N	umber
096-06-003-5314	LCS	Aqueou	s ICP/MS 03	09/07/16	09/08/16 21:	08 160907LA3	
<u>Parameter</u>	<u> </u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	(	0.1000	0.1017	102	80-120	73-127	
Arsenic	(	0.1000	0.09964	100	80-120	73-127	
Barium	(	0.1000	0.09970	100	80-120	73-127	
Beryllium	(	0.1000	0.1041	104	80-120	73-127	
Cadmium	(	0.1000	0.1006	101	80-120	73-127	
Chromium	(	0.1000	0.1059	106	80-120	73-127	
Cobalt	(	0.1000	0.1023	102	80-120	73-127	
Copper	(	0.1000	0.1061	106	80-120	73-127	
Lead	(	0.1000	0.09828	98	80-120	73-127	
Molybdenum	(	0.1000	0.09988	100	80-120	73-127	
Nickel	(	0.1000	0.1050	105	80-120	73-127	
Selenium	(	0.1000	0.09866	99	80-120	73-127	
Silver	(	0.05000	0.05100	102	80-120	73-127	
Thallium	(	0.1000	0.09403	94	80-120	73-127	
Vanadium	(	0.1000	0.1033	103	80-120	73-127	
Zinc	(	0.1000	0.09993	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





## **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0004 EPA 3005A Filt. EPA 6020

09/01/16

Project: CG Roxane / SB0794

Page 2 of 4

Quality Control Sample ID	Туре	Matrix	x Instrumer	nt Date Pre	pared Date Ana	alyzed LCS Bate	ch Number
099-15-693-1205	LCS	Aque	ous ICP/MS 0	3 09/07/16	09/08/16	21:08 160907L	.A3F
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.1017	102	80-120	73-127	
Arsenic		0.1000	0.09964	100	80-120	73-127	
Barium		0.1000	0.09970	100	80-120	73-127	
Beryllium		0.1000	0.1041	104	80-120	73-127	
Cadmium		0.1000	0.1006	101	80-120	73-127	
Chromium		0.1000	0.1059	106	80-120	73-127	
Cobalt		0.1000	0.1023	102	80-120	73-127	
Copper		0.1000	0.1061	106	80-120	73-127	
Lead		0.1000	0.09828	98	80-120	73-127	
Molybdenum		0.1000	0.09988	100	80-120	73-127	
Nickel		0.1000	0.1050	105	80-120	73-127	
Selenium		0.1000	0.09866	99	80-120	73-127	
Silver		0.05000	0.05100	102	80-120	73-127	
Thallium		0.1000	0.09403	94	80-120	73-127	
Vanadium		0.1000	0.1033	103	80-120	73-127	
Zinc		0.1000	0.09993	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



## **Quality Control - LCS**

Geosyntec Consultants
Date Received:
924 Anacapa Street, Suite 4A
Work Order:
16-09-0004
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Total
Method:
EPA 7470A

Project: CG Roxane / SB0794 Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument [	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7969	LCS	Aqueous	Mercury 04 0	09/07/16	09/07/16 17:52	160907LA1
<u>Parameter</u>		Spike Added	Conc. Recovered	ed LCS %Re	ec. %Rec.	. CL Qualifiers
Mercury		0.01000	0.01069	107	80-120	)



## **Quality Control - LCS**

Geosyntec ConsultantsDate Received:09/01/16924 Anacapa Street, Suite 4AWork Order:16-09-0004Santa Barbara, CA 93101-2177Preparation:EPA 7470A Filt.Method:EPA 7470A

Project: CG Roxane / SB0794 Page 4 of 4

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-819	LCS	Aqueous	Mercury 04	09/07/16	09/07/16 17:52	160907LA1F
Parameter		Spike Added	Conc. Recover	red LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01069	107	80-12	0



## **Sample Analysis Summary Report**

Work Order: 16-09-0004				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	776	Mercury 04	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841



Ζ

## **Glossary of Terms and Qualifiers**

Work Order: 16-09-0004 Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
Χ	% Recovery and/or RPD out-of-range.

Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience

**CHAIN OF CUSTODY RECORD** 

16 +8-30-16

1-62-8

DATE:

WO#/LAB USE ONLY

Preserved 93101 KA 8-31-16 B 5 DATS X STANDARD Unpreserved ZIP. NO. CONT. KCoffman@geosyntec.com 8 MATRIX 3 3 3 MW-4-6-18.5-16836 8-30-16 1045 024191-62-8 83 7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 ☐ 72 HR SAMPLING MW-13-W-12.5-16082 G-29-16 DATE ☐ 48 HR 924 Anacapa St. Suite 4A **Geosyntec Consultants** GLOBAL ID: SAMPLE ID Santa Barbara 805-897-3800

Page 34 of 37 11:00 Kenjo Agustsson SAMPLER(S): (PRINT) SB0794 REQUESTED ANALYSES Please check box or fill in blank as needed. PAGE: 16-09-0004 CLIENT PROJECT NAME / NUMBER Les F140,2 Kevin Coffman PROJECT CONTACT CG Roxane Received by: (Signature/Affiliation) Received by: (Signature/Affiliation For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us 5151 D. 08-8 8-8091-41-01-51-011 6 MW-15-W-24-160830 9-30-16 1500 Geoslape \_\_\_1\_\_\_ Cooler(s) with this COC shipped via FedEx 2 MW-12-W-11,5-160828 8-29-16 3 Mw-12-w-8-160829 ☐ SAME DAY ☐ 24 HR Relinquished by: (Signature SPECIAL INSTRUCTIONS: COELT EDF ADDRESS: 4 LAB USE ONLY CITY:



Return to Contents



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WORK ORDER NUMBER: 16-09-3 € 3 € 0.004

Calscience

## SAMPLE RECEIPT CHECKLIST

COOLER	OF	: <u>)</u>
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CLIENT: UTEOSYNTEC	DATE	≣: 09 / <u>«</u>	<u>01 / 2</u>	016
TEMPERATURE: (Criteria: 0.0°C − 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2 · 1 · °C (w/ CF): 2 · 1  □ Sample(s) outside temperature criteria (PM/APM contacted by:)  □ Sample(s) outside temperature criteria but received on ice/chilled on same day of sar □ Sample(s) received at ambient temperature; placed on ice for transport by courier  Ambient Temperature: □ Air □ Filter	mpling	Blank □ Checked		
		Checked Checked		
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  Sampling date  Sampling time  Matrix  Number of containers				N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished sampler's name indicated on COC  Sample container label(s) consistent with COC  Sample container(s) intact and in good condition  Proper containers for analyses requested		<b>a</b> <b>a</b> <b>a</b>		
Sufficient volume/mass for analyses requested  Samples received within holding time  Aqueous samples for certain analyses received within 15-minute holding time  □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen			_	
Proper preservation chemical(s) noted on COC and/or sample container  Unpreserved aqueous sample(s) received for certain analyses  Unpreserved aqueous sample(s) received for certain analyses  Dissolved Metals		p ,	Faloille	
Container(s) for certain analysis free of headspace  ☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)  ☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)  Tedlar™ bag(s) free of condensation				
CONTAINER TYPE: (Trip Blank Lo			4	۱
Aqueous:   VOA   VOAh   VOAna2   100PJ   100PJna2   125AGB   125AGBh   125PBznna   250AGB   250CGB   250CGBs   250PB   250PB   250PBn   500AGB   500PB   1AGB   1AGBna2   1AGBs   1PB   1PBna   250PB   250PB   500AGB   500PB   4ozCGJ   8ozCGJ   16ozCGJ   Sleeve   EnCores   Terror   Air:   Tedlar   Canister   Sorbent Tube   PUF   Other Matrix   Container:   A = Amber,   B = Bottle,   C = Clear,   E = Envelope,   G = Glass,   J = Jar,   P = Plastic,   and   Z = ZP   Preservative:   b = buffered,   f = filtered,   h = HCl,   n = HNO3,   na = NaOH,   na2 = Na2S2O3,   p = H3PO4,   s = H2SO4,   u = ultra-pure,   znna = Zn (CH3CO2)2 + NaOH	☐ 125AGE ☐ 500AGJ ☐	Bp □ 125 □ 500AG □ □ □ □ □	5PB Js by: 10(	



## **Calscience**



# **WORK ORDER NUMBER: 16-09-0110**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Suite 4A

Santa Barbara, CA 93101-2177

At Mouse

Approved for release on 09/14/2016 by:

Stephen Nowak Project Manager

Email your PM >

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number:	16-09-0110

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4	Client Sample Data.  4.1 EPA 300.0 Anions (Aqueous).  4.2 EPA 200.7 ICP Metals (Aqueous).  4.3 EPA 6020/7470A CAC Title 22 Metals, Total (Aqueous).  4.4 EPA 6020/7470A CAC Title 22 Metals, Filtered (Aqueous).  4.5 EPA 7470A Mercury (Aqueous).  4.6 EPA 7470A Mercury (Aqueous).  4.7 EPA 8270C Semi-Volatile Organics (Aqueous).  4.8 EPA 8260B Volatile Organics (Aqueous).  4.9 Combined Inorganic Tests.	7 8 9 12 15 16 17 23 33
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#### **Work Order Narrative**

Work Order: 16-09-0110 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/02/16. They were assigned to Work Order 16-09-0110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



#### **Sample Summary**

Client: Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Work Order: Project Name:

PO Number:

Date/Time Received:

Number of

Containers:

09/02/16 10:10

CG Roxane / SB0794

16-09-0110

31

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-03-090116	16-09-0110-1	09/01/16 13:08	14	Aqueous
MW-15-090116	16-09-0110-2	09/01/16 14:36	16	Aqueous
QCTB-090116-2	16-09-0110-3	09/01/16 13:08	1	Aqueous



## **Detections Summary**

Client: Geosyntec Consultants Work Order: 16-09-0110

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/02/16

Attn: Kevin Coffman Page 1 of 2

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
MW-03-090116 (16-09-0110-1)						
Calcium	22.4		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.99		1.00	mg/L	EPA 200.7	N/A
Sodium	31.7		5.00	mg/L	EPA 200.7	N/A
Chloride	4.6		1.0	mg/L	EPA 300.0	N/A
Sulfate	14		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0119		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00797		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00118		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0145		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0138		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0105		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.0173		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00106		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0133		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00746		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0122		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	117		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	117		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	165		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.44		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.3		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.87		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.4		0.10	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



## **Detections Summary**

Client: Geosyntec Consultants

Work Order: 16-09-0110

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 09/02/16

Attn: Kevin Coffman Page 2 of 2

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-15-090116 (16-09-0110-2)						
Calcium	42.5		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.46		1.00	mg/L	EPA 200.7	N/A
Sodium	34.5		5.00	mg/L	EPA 200.7	N/A
Chloride	5.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	26		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0232		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0169		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0168		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00140		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0290		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0359		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00252		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.00110		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00424		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00118		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0197		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00272		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00535		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0165		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	180		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.18		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.54		0.31	mg/L	SM 4500 P B/E	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0110
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
EPA 300.0
Units:
mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-F	09/01/16 13:08	Aqueous	IC 9	N/A	09/02/16 16:38	160902L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Quali	fiers
Chloride		4.6	1.0		1.00		
Sulfate		14	1.0		1.00		

MW-15-090116	16-09-0110-2-F	09/01/16 14:36	Aqueous I	C 9 N/A	09/02/16 160902L01 16:57
<u>Parameter</u>		Result	<u>RL</u>	DF	<u>Qualifiers</u>
Chloride		5.7	1.0	1.00	
Sulfate		26	1.0	1.00	

Method Blank	099-12-906-6917	N/A	Aqueous	IC 9	N/A	09/02/16 10:51	160902L01
<u>Parameter</u>		Result	RL		<u>DF</u>	<u>Quali</u>	fiers
Chloride		ND	1.0	)	1.00		
Sulfate		ND	1.0	)	1.00		

Return to C



Geosyntec Consultants Date Received: 09/02/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0110 Santa Barbara, CA 93101-2177 Preparation: N/A Method: EPA 200.7

> Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-J	09/01/16 13:08	Aqueous	ICP 7300	09/07/16	09/08/16 18:16	160907LA4A
Parameter		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Calcium		22.4	1.0	0	10.0		
Magnesium		2.99	1.0	0	10.0		
Sodium		31.7	5.0	0	10.0		
MW-15-090116	16-09-0110-2-J	09/01/16 14:36	Aqueous	ICP 7300	09/07/16	09/08/16 18:17	160907LA4A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		42.5	1.0	0	10.0		
Magnesium		2.46	1.0	0	10.0		
Sodium		34.5	5.0	0	10.0		

Method Blank	097-01-012-6678	N/A	Aqueous I	CP 7300	09/07/16	09/08/16 15:57	160907LA4A
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		ND	0.100	)	1.00		
Magnesium		ND	0.100	)	1.00		
Sodium		ND	0.500	)	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0110 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-J	09/01/16 13:08	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:48	160907LA4
Parameter		Result	RL	<b>.</b>	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0138	0.0	00100	1.00		
Barium		0.0105	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.0173	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00106	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0133	0.0	00100	1.00		
Nickel		0.00746	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		0.0122	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0110 EPA 3020A Total EPA 6020 mg/L

09/02/16

Project: CG Roxane / SB0794

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	16-09-0110-2-J	09/01/16 14:36	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:50	160907LA4
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0290	0.0	00100	1.00		
Barium		0.0359	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00252	0.0	00100	1.00		
Cobalt		0.00110	0.0	00100	1.00		
Copper		0.00424	0.0	00100	1.00		
Lead		0.00118	0.0	00100	1.00		
Molybdenum		0.0197	0.0	00100	1.00		
Nickel		0.00272	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00535	0.0	00100	1.00		
Zinc		0.0165	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0110 EPA 3020A Total EPA 6020 mg/L

09/02/16

Project: CG Roxane / SB0794

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5315	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0110 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-I	09/01/16 13:08	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:38	160907LA4F
Parameter		Result	RL	<b>.</b>	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0119	0.0	00100	1.00		
Barium		0.00797	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0120	0.0	00100	1.00		
Nickel		0.00118	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		0.0145	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Chromium

Molybdenum

Cobalt

Copper Lead

Nickel

Zinc

Selenium

Date Received: Work Order: Preparation: Method:

0.00100

0.00100

0.00100

0.00100

0.00100

0.00100

0.00100

0.00500

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

16-09-0110 EPA 3005A Filt. EPA 6020 mg/L

09/02/16

Units:

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Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	16-09-0110-2-l	09/01/16 14:36	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:40	160907LA4F
Parameter		Result	RL	•	DF	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0232	0.0	00100	1.00		
Barium		0.0169	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		

ND

ND

ND

ND

ND

ND

0.0168

0.00140

Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
MW-15-090116	16-09-0110-2-I	09/01/16 14:36	Aqueous	ICP/MS 03	09/07/16	09/13/16 11:14	160907LA4F
Parameter		Result	RL		DF	Qu	alifiers



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0110 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1206	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4F
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants Date Received: 09/02/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0110 EPA 7470A Total Santa Barbara, CA 93101-2177 Preparation: Method: EPA 7470A Units: mg/L Project: CG Roxane / SB0794 Page 1 of 1

							<u> </u>
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-J	09/01/16 13:08	Aqueous	Mercury 04	09/07/16	09/08/16 12:41	160907LA3
<u>Parameter</u>	·	Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-15-090116	16-09-0110-2-J	09/01/16 14:36	Aqueous	Mercury 04	09/07/16	09/08/16 12:44	160907LA3
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Mercury		ND	0.0	000500	1.00		

Method Blank	099-04-008-7967	N/A	Aqueous Mercury 05	09/07/16	09/07/16 160907LA3 17:27
<u>Parameter</u>	·	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury		ND	0.000500	1.00	



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Project: CG Roxane / SB0794

#### **Analytical Report**

Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0110
Santa Barbara, CA 93101-2177
Preparation:
Method:
EPA 7470A

Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	16-09-0110-1-I	09/01/16 13:08	Aqueous	Mercury 04	09/07/16	09/08/16 12:46	160907LA3F
Parameter	·	Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-15-090116	16-09-0110-2-I	09/01/16	Aqueous	Mercury 04	09/07/16	09/08/16	160907LA3F

MW-15-090116	16-09-0110-2-1	14:36	Aqueous Mercury 04	09/07/16	19/08/16 160907LA3F 12:48
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury		ND	0.000500	1.00	

Method Blank	099-15-763-818	N/A	Aqueous Mercury 05	09/07/16	09/07/16 1 17:27	60907LA3F
Parameter		Result	<u>RL</u>	<u>DF</u>	Qualifie	<u>rs</u>
Mercury		ND	0.000500	1.00		





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0110 EPA 3510C EPA 8270C

09/02/16

ug/L

Project: CG Roxane / SB0794 Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	16-09-0110-2-O	09/01/16 14:36	Aqueous	GC/MS SS	09/03/16	09/08/16 13:24	160903L05
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.4		1.00		
Acenaphthylene		ND	9.4		1.00		
Aniline		ND	9.4		1.00		
Anthracene		ND	9.4		1.00		
Azobenzene		ND	9.4		1.00		
Benzidine		ND	47		1.00		
Benzo (a) Anthracene		ND	9.4		1.00		
Benzo (a) Pyrene		ND	9.4		1.00		
Benzo (b) Fluoranthene		ND	9.4		1.00		
Benzo (g,h,i) Perylene		ND	9.4		1.00		
Benzo (k) Fluoranthene		ND	9.4		1.00		
Benzoic Acid		ND	47		1.00		
Benzyl Alcohol		ND	9.4		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.4		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.4		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.4		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.4		1.00		
Butyl Benzyl Phthalate		ND	9.4		1.00		
4-Chloro-3-Methylphenol		ND	9.4		1.00		
4-Chloroaniline		ND	9.4		1.00		
2-Chloronaphthalene		ND	9.4		1.00		
2-Chlorophenol		ND	9.4		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.4		1.00		
Chrysene		ND	9.4		1.00		
2,6-Dichlorophenol		ND	9.4		1.00		
Di-n-Butyl Phthalate		ND	9.4		1.00		
Di-n-Octyl Phthalate		ND	9.4		1.00		
Dibenz (a,h) Anthracene		ND	9.4		1.00		
Dibenzofuran		ND	9.4		1.00		
1,2-Dichlorobenzene		ND	9.4		1.00		
1,3-Dichlorobenzene		ND	9.4		1.00		
1,4-Dichlorobenzene		ND	9.4		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.4		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 6

<u> </u>				<u> </u>
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	
2,4,5-Trichlorophenol	ND	9.4	1.00	
-				



Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	65	50-110	
2-Fluorophenol	71	20-110	
Nitrobenzene-d5	66	40-110	
p-Terphenyl-d14	73	50-135	
Phenol-d6	71	10-115	
2,4,6-Tribromophenol	71	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 3510C EPA 8270C

ug/L

Units:

Page 4 of 6

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-62	N/A	Aqueous	GC/MS SS	09/03/16	09/06/16 10:32	160903L05
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 5 of 6

Floject. CG Roxalle / Sbo794				rage 5 01 0
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

10

1.00

ND



Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method:

16-09-0110 EPA 5030C EPA 8260B

09/02/16

Units: ug/L Page 1 of 10

Client Sample Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
Clieft Sample Number	Number	Collected	IVIALITA	mstrument	Prepared	Analyzed	QC Balcii ib
MW-03-090116	16-09-0110-1-A	09/01/16 13:08	Aqueous	GC/MS V V	09/02/16	09/03/16 00:40	160902L058
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	0	1.00		
Bromobenzene		ND	1.0	1	1.00		
Bromochloromethane		ND	1.0	1	1.00		
Bromodichloromethane		ND	1.0	1	1.00		
Bromoform		ND	1.0	1	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	1	1.00		
sec-Butylbenzene		ND	1.0	1	1.00		
tert-Butylbenzene		ND	1.0	1	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	0	1.00		
Chlorobenzene		ND	1.0	1	1.00		
Chloroethane		ND	5.0	1	1.00		
Chloroform		ND	1.0	1	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	1	1.00		
4-Chlorotoluene		ND	1.0	1	1.00		
Dibromochloromethane		ND	1.0	1	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	1	1.00		
1,2-Dibromoethane		ND	1.0	1	1.00		
Dibromomethane		ND	1.0	1	1.00		
1,2-Dichlorobenzene		ND	1.0	1	1.00		
1,3-Dichlorobenzene		ND	1.0		1.00		
1,4-Dichlorobenzene		ND	1.0	1	1.00		
Dichlorodifluoromethane		ND	1.0		1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5	0	1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.00

ND



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 10

Project: CG Roxane / SB0794				Page 2 of 10
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	99	75-135		
Toluene-d8	95	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0110 EPA 5030C EPA 8260B

09/02/16

ug/L

Project: CG Roxane / SB0794

Page 3 of 10

MW-15-090116         16-09-0110-2-A         09/01/16 14:36         Aqueous GC/MS V V         09/02/16 01:08         16-09-0110-2-A         16-09-	rs
Acetone       ND       20       1.00         Benzene       ND       0.50       1.00         Bromobenzene       ND       1.0       1.00         Bromochloromethane       ND       1.0       1.00         Bromoform       ND       1.0       1.00         Bromomethane       ND       1.0       1.00         2-Butanone       ND       10       1.00         n-Butylbenzene       ND       1.0       1.00	<u>rs</u>
Benzene         ND         0.50         1.00           Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00	
n-Butylbenzene ND 1.0 1.00	
sec-Butylbenzene ND 1.00 1.00	
···· ··· · · · · · · · · · · · · · · ·	
tert-Butylbenzene ND 1.0 1.00	
Carbon Disulfide ND 10 1.00	
Carbon Tetrachloride ND 0.50 1.00	
Chlorobenzene ND 1.0 1.00	
Chloroethane ND 5.0 1.00	
Chloroform ND 1.0 1.00	
Chloromethane ND 10 1.00	
2-Chlorotoluene ND 1.0 1.00	
4-Chlorotoluene ND 1.0 1.00	
Dibromochloromethane ND 1.0 1.00	
1,2-Dibromo-3-Chloropropane ND 5.0 1.00	
1,2-Dibromoethane ND 1.0 1.00	
Dibromomethane ND 1.0 1.00	
1,2-Dichlorobenzene ND 1.0 1.00	
1,3-Dichlorobenzene ND 1.0 1.00	
1,4-Dichlorobenzene ND 1.0 1.00	
Dichlorodifluoromethane ND 1.0 1.00	
1,1-Dichloroethane ND 1.0 1.00	
1,2-Dichloroethane ND 0.50 1.00	
1,1-Dichloroethene ND 1.0 1.00	
c-1,2-Dichloroethene ND 1.0 1.00	
t-1,2-Dichloroethene ND 1.0 1.00	
1,2-Dichloropropane ND 1.0 1.00	
1,3-Dichloropropane ND 1.0 1.00	
2,2-Dichloropropane ND 1.0 1.00	

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 4 of 10

Project: CG Roxane / SB0/94				Page 4 of 10
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	87	80-120		
Dibromofluoromethane	103	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	96	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0110 EPA 5030C EPA 8260B

ug/L Page 5 of 10

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-090116-2	16-09-0110-3-A	09/01/16 13:08	Aqueous	GC/MS V V	09/07/16	09/07/16 17:50	160907L041
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit. DF: Dilution Factor. M

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: CG Roxane / SB0794

Project: CG Roxane / SB0794				Page 6 of 10
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	109	78-126		
1,2-Dichloroethane-d4	109	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0110 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

Page 7 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-2939	N/A	Aqueous	GC/MS V V	09/02/16	09/03/16 00:12	160902L058
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	0	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	60	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	60	1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 8 of 10
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	101	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	96	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 5030C EPA 8260B

ug/L

Units:

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Project: CG Roxane / SB0794

Date/Time Collected Date/Time QC Batch ID Lab Sample Date Prepared Client Sample Number Matrix Instrument Number Analyzed 09/07/16 16:54 160907L041 **Method Blank** 099-14-316-2943 N/A Aqueous GC/MS V V 09/07/16 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00

RL: Reporting Limit.

1,2-Dichloropropane1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.0

1.0

1.00

1.00

1.00

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 10 of 10		
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
1,1-Dichloropropene	ND	1.0	1.00			
c-1,3-Dichloropropene	ND	0.50	1.00			
t-1,3-Dichloropropene	ND	0.50	1.00			
Ethylbenzene	ND	1.0	1.00			
2-Hexanone	ND	10	1.00			
Isopropylbenzene	ND	1.0	1.00			
p-Isopropyltoluene	ND	1.0	1.00			
Methylene Chloride	ND	10	1.00			
4-Methyl-2-Pentanone	ND	10	1.00			
Naphthalene	ND	10	1.00			
n-Propylbenzene	ND	1.0	1.00			
Styrene	ND	1.0	1.00			
1,1,1,2-Tetrachloroethane	ND	1.0	1.00			
1,1,2,2-Tetrachloroethane	ND	1.0	1.00			
Tetrachloroethene	ND	1.0	1.00			
Toluene	ND	1.0	1.00			
1,2,3-Trichlorobenzene	ND	1.0	1.00			
1,2,4-Trichlorobenzene	ND	1.0	1.00			
1,1,1-Trichloroethane	ND	1.0	1.00			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00			
1,1,2-Trichloroethane	ND	1.0	1.00			
Trichloroethene	ND	1.0	1.00			
Trichlorofluoromethane	ND	10	1.00			
1,2,3-Trichloropropane	ND	5.0	1.00			
1,2,4-Trimethylbenzene	ND	1.0	1.00			
1,3,5-Trimethylbenzene	ND	1.0	1.00			
Vinyl Acetate	ND	10	1.00			
Vinyl Chloride	ND	0.50	1.00			
p/m-Xylene	ND	1.0	1.00			
o-Xylene	ND	1.0	1.00			
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00			
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>			
1,4-Bromofluorobenzene	87	80-120				
Dibromofluoromethane	105	78-126				
1,2-Dichloroethane-d4	108	75-135				
Toluene-d8	99	80-120				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/02/16 16-09-0110

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Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
MW-03-090116			16-09	9-0110-1		09/01/1	6 13:08	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	117	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	117	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	165	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	1.4	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.44	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	1.3	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	0.87	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	1.4	0.10	0.200		mg/L	N/A	09/12/16	Total Nitrogen by Calc

MW-15-090116			16-09	9-0110-2		09/01/10	6 14:36	Aqueous
<u>Parameter</u>	Results	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	120	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	120	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	180	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.18	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.54	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	ND	0.10	0.200		mg/L	N/A	09/12/16	Total Nitrogen by Calc

Method Blank						N/A		Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0110
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
EPA 300.0

Project: CG Roxane / SB0794 Page 1 of 11

Quality Control Sample ID	Туре		Matrix I		ument	Date Prepared	d Date Analyzed		MS/MSD Batch Number	
MW-03-090116	Sample		Aqueou	s IC 9		N/A	09/02/16	16:38	160902S01	
MW-03-090116	Matrix Spike		Aqueou	s IC 9		N/A	09/02/16	17:16	160902S01	
MW-03-090116	Matrix Spike	Duplicate	Aqueou	s IC 9		N/A	09/02/16	17:35	160902S01	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	4.634	50.00	43.26	77	44.28	79	80-120	2	0-20	3
Sulfate	13.58	50.00	54.87	83	55.67	84	80-120	1	0-20	



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0110
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
SM 4500 P B/E

Project: CG Roxane / SB0794 Page 2 of 11

Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0112-1	Sample		Aqueous	s U\	/ 8	09/03/16	09/03/16	11:15	G0903TPS1	
16-09-0112-1	Matrix Spike		Aqueous	s U\	/ 8	09/03/16	09/03/16	11:15	G0903TPS1	
16-09-0112-1	Matrix Spike D	uplicate	Aqueous l		/ 8	09/03/16	09/03/16	11:15	G0903TPS1	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1590	0.4000	0.4910	83	0.4853	82	70-130	1	0-25	





Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Preparation:

Method:

N/A SM 4500 P B/E

09/02/16

16-09-0110

Project: CG Roxane / SB0794 Page 3 of 11

Quality Control Sample ID	Туре	Matrix	Instru	ment	Date Prepared	Date Anal	lyzed	MS/MSD Bat	ch Number
16-09-0112-1	Sample	Aqueou	s UV 8		09/03/16	09/03/16	11:15	G0903PO4S	1
16-09-0112-1	Matrix Spike	Aqueou	s UV 8		09/03/16	09/03/16	11:15	G0903PO4S	1
16-09-0112-1	Matrix Spike Dupli	icate Aqueou	s UV 8		09/03/16	09/03/16	11:15	G0903PO4S	1
Parameter	Sample Spil	ike <u>MS</u> ded <u>Conc.</u>	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4864 1.22	20 1.502	83	1.485	82	70-130	1	0-25	



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500-NO3 E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Type		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
MW-15-090116	Sample		Aqueou	s U\	<b>/</b> 8	09/02/16	09/02/16	17:09	FG0902NO3	BS
MW-15-090116	Matrix Spike		Aqueou	s U\	<b>V</b> 8	09/02/16	09/02/16	17:09	FG0902NO3	s
MW-15-090116	Matrix Spike	Duplicate	Aqueou	s U\	<b>/</b> 8	09/02/16	09/02/16	17:09	FG0902NO3	s
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4533	91	0.4519	90	70-130	0	0-25	





 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 5540C

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Instr	ument	Date Prepared	Date Ana	yzed	MS/MSD Bat	ch Number
16-09-0112-3	Sample		Aqueous	UV 9	)	09/02/16	09/02/16	17:10	G0902SURS	1
16-09-0112-3	Matrix Spike		Aqueous	UV 9	)	09/02/16	09/02/16	17:10	G0902SURS	1
16-09-0112-3	Matrix Spike D	uplicate	Aqueous	UV 9		09/02/16	09/02/16	17:10	G0902SURS	1
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9568	96	0.9365	94	70-130	2	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 N/A

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Project: CG Roxane / SB0794

Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0040-7	Sample		Aqueou	ıs lo	CP 7300	09/07/16	09/09/16	11:05	160907SA4	
16-09-0040-7	Matrix Spike		Aqueou	ıs lo	CP 7300	09/07/16	09/09/16	11:02	160907SA4	
16-09-0040-7	Matrix Spike	Duplicate	Aqueou	ıs lo	CP 7300	09/07/16	09/09/16	11:03	160907SA4	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0110 EPA 3020A Total EPA 6020

09/02/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Pre	epared Date A	nalyzed	MS/MSD Ba	tch Number
16-09-0324-1	Sample		Aqueous	3	ICP/MS 03	09/07/16	09/08/	16 20:30	160907SA4	
16-09-0324-1	Matrix Spike		Aqueous	3	ICP/MS 03	09/07/16	09/08/	16 20:25	160907SA4	
16-09-0324-1	Matrix Spike I	Duplicate	Aqueous	3	ICP/MS 03	09/07/16	09/08/	16 20:27	160907SA4	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Re	MSE ec. Cond		%Rec. (	CL RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.10	81 108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.10	26 101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.43	52 107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09	387 94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09	938 99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.10	10 101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09	174 92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.27	24 81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.11	31 112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.11	78 115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09	450 88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09	916 99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05	503 110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.10	84 108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09	900 97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.23	83 61	43-145	4	0-39	



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Inst	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
16-09-0181-6	Sample		Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:49	160907SA3	
16-09-0181-6	Matrix Spike		Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:36	160907SA3	
16-09-0181-6	Matrix Spike	Duplicate	Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:47	160907SA3	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepa	red Date Ana	lyzed	MS/MSD Bat	ch Numbe
MW-03-090116	Sample		Aqueous	;	GC/MS V V	09/02/16	09/03/16	16 00:40 160902S026		
MW-03-090116	Matrix Spike		Aqueous	3	GC/MS V V	09/02/16	09/03/16	09:56	160902S026	
MW-03-090116	Matrix Spike	Duplicate	Aqueous	3	GC/MS V V	09/02/16	09/03/16	10:24	160902S026	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Red	MSD c. Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	58.73	117	60.15	120	22-178	2	0-26	
Benzene	ND	50.00	47.63	95	48.75	98	70-130	2	0-20	
Bromobenzene	ND	50.00	53.03	106	51.60	103	70-130	3	0-20	
Bromochloromethane	ND	50.00	46.34	93	44.34	89	70-132	4	0-20	
Bromodichloromethane	ND	50.00	50.73	101	50.46	101	69-135	1	0-20	
Bromoform	ND	50.00	48.55	97	49.07	98	70-133	1	0-20	
Bromomethane	ND	50.00	35.79	72	39.37	79	11-167	10	0-32	
2-Butanone	ND	50.00	38.76	78	38.66	77	39-159	0	0-21	
n-Butylbenzene	ND	50.00	51.77	104	53.65	107	62-152	4	0-28	
sec-Butylbenzene	ND	50.00	55.22	110	56.56	113	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	56.03	112	56.24	112	70-140	0	0-20	
Carbon Disulfide	ND	50.00	54.86	110	56.32	113	54-138	3	0-23	
Carbon Tetrachloride	ND	50.00	49.92	100	50.12	100	63-153	0	0-22	
Chlorobenzene	ND	50.00	48.42	97	48.99	98	70-130	1	0-20	
Chloroethane	ND	50.00	57.12	114	58.01	116	44-140	2	0-32	
Chloroform	ND	50.00	45.84	92	45.32	91	68-134	1	0-20	
Chloromethane	ND	50.00	43.32	87	43.29	87	20-158	0	0-40	
2-Chlorotoluene	ND	50.00	52.18	104	52.29	105	70-137	0	0-20	
4-Chlorotoluene	ND	50.00	51.64	103	52.45	105	70-130	2	0-20	
Dibromochloromethane	ND	50.00	50.30	101	51.78	104	70-133	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	48.48	97	50.18	100	67-133	3	0-20	
1,2-Dibromoethane	ND	50.00	47.89	96	49.08	98	70-130	2	0-20	
Dibromomethane	ND	50.00	46.81	94	45.95	92	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	51.08	102	52.64	105	70-130	3	0-20	
1,3-Dichlorobenzene	ND	50.00	51.66	103	52.59	105	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	48.53	97	49.56	99	70-130	2	0-20	
Dichlorodifluoromethane	ND	50.00	30.67	61	31.19	62	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	45.69	91	46.15	92	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	44.73	89	44.55	89	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	51.85	104	52.80	106	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	45.19	90	45.82	92	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	43.93	88	43.74	87	68-134	0	0-20	
1,2-Dichloropropane	ND	50.00	47.67	95	47.48	95	70-130	0	0-20	
1,3-Dichloropropane	ND	50.00	47.06	94	48.28	97	70-130	3	0-20	
2,2-Dichloropropane	ND	50.00	24.80	50	24.47	49	37-169	1	0-23	



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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	46.37	93	46.32	93	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	41.38	83	41.63	83	67-139	1	0-20	
t-1,3-Dichloropropene	ND	50.00	41.45	83	42.63	85	58-136	3	0-20	
Ethylbenzene	ND	50.00	52.61	105	53.13	106	70-134	1	0-24	
2-Hexanone	ND	50.00	40.37	81	43.20	86	59-149	7	0-20	
Isopropylbenzene	ND	50.00	55.85	112	56.86	114	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	55.85	112	56.71	113	65-143	2	0-39	
Methylene Chloride	ND	50.00	43.68	87	44.38	89	69-130	2	0-21	
4-Methyl-2-Pentanone	ND	50.00	44.33	89	47.80	96	67-139	8	0-20	
Naphthalene	ND	50.00	50.04	100	55.79	112	61-139	11	0-20	
n-Propylbenzene	ND	50.00	53.83	108	54.38	109	70-140	1	0-24	
Styrene	ND	50.00	52.92	106	53.51	107	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	52.21	104	52.45	105	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	45.77	92	46.97	94	70-137	3	0-20	
Tetrachloroethene	ND	50.00	42.86	86	42.28	85	33-147	1	0-30	
Toluene	ND	50.00	49.17	98	50.04	100	70-130	2	0-20	
1,2,3-Trichlorobenzene	ND	50.00	52.74	105	57.15	114	64-142	8	0-22	
1,2,4-Trichlorobenzene	ND	50.00	51.82	104	55.21	110	60-144	6	0-24	
1,1,1-Trichloroethane	ND	50.00	47.77	96	47.67	95	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	42.02	84	41.98	84	21-190	0	0-40	
1,1,2-Trichloroethane	ND	50.00	47.55	95	46.80	94	70-130	2	0-20	
Trichloroethene	ND	50.00	45.40	91	45.61	91	42-156	0	0-20	
Trichlorofluoromethane	ND	50.00	51.35	103	49.99	100	54-162	3	0-30	
1,2,3-Trichloropropane	ND	50.00	41.17	82	42.24	84	67-130	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	54.19	108	56.15	112	70-133	4	0-20	
1,3,5-Trimethylbenzene	ND	50.00	56.13	112	55.67	111	70-139	1	0-20	
Vinyl Acetate	ND	50.00	25.66	51	26.23	52	10-190	2	0-40	
Vinyl Chloride	ND	50.00	45.82	92	46.75	93	59-137	2	0-20	
p/m-Xylene	ND	100.0	114.6	115	114.0	114	67-145	1	0-28	
o-Xylene	ND	50.00	55.48	111	56.12	112	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.84	94	48.37	97	69-130	3	0-20	



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Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0113-2	Sample		Aqueou	s G	C/MS V V	09/07/16	09/07/16	18:18	160907S010	
16-09-0113-2	Matrix Spike		Aqueou	s G	C/MS V V	09/07/16	09/07/16	23:24	160907S010	
16-09-0113-2	Matrix Spike	Duplicate	Aqueou	s G	C/MS V V	09/07/16	09/07/16	23:52	160907S010	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	48.90	98	49.52	99	74-122	1	0-21	
Carbon Tetrachloride	ND	50.00	55.01	110	56.06	112	60-144	2	0-21	
Chlorobenzene	ND	50.00	51.82	104	54.16	108	73-120	4	0-22	
1,2-Dibromoethane	ND	50.00	51.92	104	52.62	105	80-122	1	0-20	
1,2-Dichlorobenzene	ND	50.00	53.36	107	54.93	110	70-120	3	0-26	
1,2-Dichloroethane	ND	50.00	48.67	97	48.68	97	64-142	0	0-20	
1,1-Dichloroethene	ND	50.00	48.16	96	52.06	104	52-136	8	0-21	
Ethylbenzene	ND	50.00	53.28	107	55.43	111	77-125	4	0-24	
Toluene	ND	50.00	52.06	104	52.98	106	72-126	2	0-23	
Trichloroethene	ND	50.00	50.29	101	51.75	103	74-128	3	0-22	
Vinyl Chloride	ND	50.00	50.53	101	50.11	100	67-133	1	0-20	
p/m-Xylene	ND	100.0	114.4	114	117.3	117	63-129	3	0-25	
o-Xylene	ND	50.00	58.59	117	59.82	120	62-128	2	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	51.10	102	51.69	103	68-134	1	0-21	



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Quality Control Sample ID	Туре		Matrix	Instrument	Date Prepared D		PDS/PDSD Batch Number	
16-09-0324-1	Sample		Aqueous	ICP/MS 03	09/07/16 00:00 0	9/08/16 20:30	160907SA4	
16-09-0324-1	PDS		Aqueous	ICP/MS 03	09/07/16 00:00 0	9/12/16 17:39	160907SA4	
Parameter		Sample Conc.	Spike Added	d PDS Conc.	PDS %Rec.	%Rec. C	L Qualifiers	
Antimony		ND	0.1000	0.1009	101	75-125		
Arsenic		0.001808	0.1000	0.09358	92	75-125		
Barium		0.3280	0.1000	0.4118	84	75-125		
Beryllium		ND	0.1000	0.09672	97	75-125		
Cadmium		ND	0.1000	0.09175	92	75-125		
Chromium		ND	0.1000	0.08458	85	75-125		
Cobalt		ND	0.1000	0.08526	85	75-125		
Copper		0.1914	0.1000	0.2549	63	75-125	5	
Lead		0.001455	0.1000	0.1080	107	75-125		
Molybdenum		0.003077	0.1000	0.1144	111	75-125		
Nickel		0.006382	0.1000	0.08935	83	75-125		
Selenium		ND	0.1000	0.09117	91	75-125		
Silver		ND	0.05000	0.04668	93	75-125		
Thallium		ND	0.1000	0.1030	103	75-125		
Vanadium		0.001499	0.1000	0.09431	93	75-125		
Zinc		0.1771	0.1000	0.2517	75	75-125		



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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	Sample	Aqueous	BUR03	N/A	09/02/16 21:40	G0902ALKD1
16-09-0082-4	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/02/16 21:40	G0902ALKD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		465.0	461.0	1	0-25	



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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	Sample	Aqueous	BUR03	N/A	09/02/16 21:40	G0902HCOD1
16-09-0082-4	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/02/16 21:40	G0902HCOD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		465.0	461.0	1	0-25	



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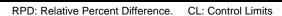
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	Sample	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
16-09-0109-3	Sample Duplicate	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1670	1685	1	0-20	





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	Sample	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
16-09-0086-3	Sample Duplicate	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen		74.90	73.92	1	0-25	





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EPA 300.0

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pr	epared Da	ate Analyzed	LCS/LCSD E	Batch Number
099-12-906-6917	LCS	Aqu	ieous	IC 9	N/A	09	/02/16 11:32	160902L01	
099-12-906-6917	LCSD	Aqı	ieous	IC 9	N/A	09	/02/16 11:51	160902L01	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. C	CL RPD	RPD CL	<u>Qualifiers</u>
Chloride	50.00	48.05	96	48.20	96	90-110	0	0-15	
Sulfate	50.00	50.12	100	50.23	100	90-110	0	0-15	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-15-859-1055	LCS	Aqı	ieous	PH1/BUR03	N/A	09/0	2/16 21:40	G0902ALKB1	
099-15-859-1055	LCSD	Aqı	ueous	PH1/BUR03	N/A	09/0	2/16 21:40	G0902ALKB1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	101.0	101	99.00	99	80-120	2	0-20	





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100.0

90.00

Solids, Total Dissolved

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5233	LCS	Aqueous	N/A	09/07/16	09/07/16 19:00	G0907TDSL1
099-12-180-5233	LCSD	Aqueous	N/A	09/07/16	09/07/16 19:00	G0907TDSL1
Parameter	Spike Added LCS	Conc. LCS %Rec	LCSD Conc.	LCSD %Rec	ec. CL RPD	RPD CL Qualifiers

95.00

95

80-120

90





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Dat	e Analyzed	LCS/LCSD Ba	atch Number
099-05-098-2787	LCS	Aqu	ieous	UV 8	09/03/16	09/0	03/16 11:15	G0903TPL1	
099-05-098-2787	LCSD	Aqu	ieous	UV 8	09/03/16	09/0	03/16 11:15	G0903TPL1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4244	106	0.4256	106	80-120	0	0-20	



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Quality Control Sample ID	Туре	Matı	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	atch Number
099-14-276-202	LCS	Aqu	eous	UV 8	09/03/16	09/0	3/16 11:15	G0903PO4L1	
099-14-276-202	LCSD	Aqu	eous	UV 8	09/03/16	09/0	3/16 11:15	G0903PO4L1	
Parameter	Spike Added LO	CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220 1.	.299	106	1.302	107	80-120	0	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	tch Number
099-12-814-2429	LCS	Aqı	ieous	BUR05	09/07/16	09/07	7/16 18:00	G0907NH3L1	
099-12-814-2429	LCSD	Aqı	ieous	BUR05	09/07/16	09/07	7/16 18:00	G0907NH3L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.284	86	4.368	87	80-120	2	0-20	



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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Prep	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-439	LCS	Aqu	eous	UV 8	09/02/16	09/0	2/16 17:09	FG0902NO3L	
099-14-282-439	LCSD	Aqu	eous	UV 8	09/02/16	09/0	2/16 17:09	FG0902NO3L	
Parameter	Spike Added L	_CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5203	104	0.5218	104	80-120	0	0-20	





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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Prep	pared Date	Analyzed	LCS/LCSD Ba	tch Number
099-05-093-3131	LCS	Aqu	ieous	UV 9	09/02/16	09/0	2/16 17:10	G0902SURL1	
099-05-093-3131	LCSD	Aqu	eous	UV 9	09/02/16	09/0	2/16 17:10	G0902SURL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9632	96	0.9546	95	80-120	1	0-20	



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O97-01-012-6678         LCS         Aqueous         ICP 7300         09/07/16         09/09/16 13:59 160907LA4A           Parameter         Spike Added         Conc. Recovered         LCS %Rec.         %Rec. CL         Qualifiers           Calcium         0.5000         0.4804         96         85-115           Magnesium         0.5000         0.5046         101         85-115	Quality Control Sample ID	Туре	Matrix	Instrument D	ate Prepared	Date Analyzed LCS B	atch Number
Calcium 0.5000 0.4804 96 85-115	097-01-012-6678	LCS	Aqueous	ICP 7300 09	9/07/16	09/09/16 13:59 16090	7LA4A
	<u>Parameter</u>		Spike Added	Conc. Recovered	LCS %Red	c. %Rec. CL	<u>Qualifiers</u>
Magnesium 0.5000 0.5046 101 85-115	Calcium		0.5000	0.4804	96	85-115	
	Magnesium		0.5000	0.5046	101	85-115	
Sodium 5.000 5.686 114 85-115	Sodium		5.000	5.686	114	85-115	





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Quality Control Sample ID	Type	Matrix	x Instrume	nt Date Pre	pared Date Ana	alyzed LCS Bate	ch Number
096-06-003-5315	LCS	Aque	eous ICP/MS	03 09/07/16	09/08/16	20:22 160907L	.A4
Parameter		Spike Added	Conc. Recovered	d LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.1019	102	80-120	73-127	
Arsenic		0.1000	0.1017	102	80-120	73-127	
Barium		0.1000	0.09975	100	80-120	73-127	
Beryllium		0.1000	0.1048	105	80-120	73-127	
Cadmium		0.1000	0.1008	101	80-120	73-127	
Chromium		0.1000	0.1061	106	80-120	73-127	
Cobalt		0.1000	0.1008	101	80-120	73-127	
Copper		0.1000	0.1050	105	80-120	73-127	
Lead		0.1000	0.09917	99	80-120	73-127	
Molybdenum		0.1000	0.09932	99	80-120	73-127	
Nickel		0.1000	0.1030	103	80-120	73-127	
Selenium		0.1000	0.1010	101	80-120	73-127	
Silver		0.05000	0.05105	102	80-120	73-127	
Thallium		0.1000	0.09542	95	80-120	73-127	
Vanadium		0.1000	0.1030	103	80-120	73-127	
Zinc		0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 3005A Filt. EPA 6020

Project: CG Roxane / SB0794

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Quality Control Sample ID	Type	Matrix	Instrume	ent Da	te Prepared Dat	te Analyzed	LCS Batch Nu	mber
099-15-693-1206	LCS	Aque	ous ICP/MS	03 09/	/07/16 09/	08/16 20:22	160907LA4F	
<u>Parameter</u>		Spike Added	Conc. Recovere	d LCS %F	Rec. %Rec. 0	CL ME	<u>CL</u>	Qualifiers
Antimony		0.1000	0.1019	102	80-120	73	-127	
Arsenic		0.1000	0.1017	102	80-120	73	-127	
Barium		0.1000	0.09975	100	80-120	73	-127	
Beryllium		0.1000	0.1048	105	80-120	73	-127	
Cadmium		0.1000	0.1008	101	80-120	73	-127	
Chromium		0.1000	0.1061	106	80-120	73	-127	
Cobalt		0.1000	0.1008	101	80-120	73	-127	
Copper		0.1000	0.1050	105	80-120	73	-127	
Lead		0.1000	0.09917	99	80-120	73	-127	
Molybdenum		0.1000	0.09932	99	80-120	73	-127	
Nickel		0.1000	0.1030	103	80-120	73	-127	
Selenium		0.1000	0.1010	101	80-120	73	-127	
Silver		0.05000	0.05105	102	80-120	73	-127	
Thallium		0.1000	0.09542	95	80-120	73	-127	
Vanadium		0.1000	0.1030	103	80-120	73	-127	
Zinc		0.1000	0.1033	103	80-120	73	-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0110

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Total

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-120	0

09/02/16

16-09-0110

EPA 7470A Filt.



Project: CG Roxane / SB0794

### **Quality Control - LCS**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Preparation:

Method:

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3F
Parameter		Spike Added	Conc. Recove	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-12	0



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 3510C EPA 8270C

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Quality Control Sample ID	Туре		Matrix	lı .	nstrument	Date Prepare	d Date	Analyzed	LCS/LCSD Ba	tch Number
099-02-008-62	LCS		Aqueous	s G	SC/MS SS	09/03/16	09/06/	16 10:51	160903L05	
099-02-008-62	LCSD		Aqueous	s 0	SC/MS SS	09/03/16	09/06/	16 11:13	160903L05	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference. CL

CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 3510C EPA 8270C

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<u>Parameter</u>	<u>Spike</u> Added	LCS Con	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 0





Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 20

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared D	ate Analyzed	LCS Batch Number
099-14-316-2939	LCS	Aqueous	GC/MS V V	09/02/16 09	9/02/16 23:16	160902L058
<u>Parameter</u>	<u>Spil</u>	ke Added Conc.	Recovered LCS	%Rec. %Rec	:. CL ME	CL Qualifie
Acetone	50.0	00 55.56	111	12-15	0 0-1	73
Benzene	50.0	00 45.16	90	80-12	0 73-	127
Bromobenzene	50.0	00 52.26	105	80-12	0 73-	127
Bromochloromethane	50.0	00 44.00	88	80-12	2 73-	129
Bromodichloromethane	50.0	00 48.77	98	80-12	3 73-	130
Bromoform	50.0	00 48.45	97	74-13	4 64-	144
Bromomethane	50.0	00 48.60	97	22-16	0 0-1	83
2-Butanone	50.0	00 41.05	82	44-16	4 24-	184
n-Butylbenzene	50.0	50.06	100	80-13	2 71-	141
sec-Butylbenzene	50.0	00 52.91	106	80-12	9 72-	137
tert-Butylbenzene	50.0	51.66	103	80-13	0 72-	138
Carbon Disulfide	50.0	00 48.79	98	60-12	6 49-	137
Carbon Tetrachloride	50.0	00 45.63	91	64-14	8 50-	162
Chlorobenzene	50.0	00 47.53	95	80-12	0 73-	127
Chloroethane	50.0	00 48.95	98	63-12	3 53-	133
Chloroform	50.0	00 42.48	85	79-12	1 72-	128
Chloromethane	50.0	00 43.45	87	43-13	3 28-	148
2-Chlorotoluene	50.0	50.82	102	80-13	0 72-	138
4-Chlorotoluene	50.0	00 49.37	99	80-12	1 73-	128
Dibromochloromethane	50.0	00 51.48	103	80-12	5 72-	132
1,2-Dibromo-3-Chloropropane	50.0	50.60	101	68-12	8 58-	138
1,2-Dibromoethane	50.0	00 48.15	96	80-12	0 73-	127
Dibromomethane	50.0	00 44.72	89	80-12	1 73-	128
1,2-Dichlorobenzene	50.0	50.28	101	80-12	0 73-	127
1,3-Dichlorobenzene	50.0	00 48.97	98	80-12	1 73-	128
1,4-Dichlorobenzene	50.0	00 46.66	93	80-12	0 73-	127
Dichlorodifluoromethane	50.0	00 48.59	97	25-18	7 0-2	14
1,1-Dichloroethane	50.0	00 42.89	86	75-12	0 68-	128
1,2-Dichloroethane	50.0	00 44.90	90	80-12	3 73-	130
1,1-Dichloroethene	50.0	00 47.86	96	74-12	2 66-	130
c-1,2-Dichloroethene	50.0	00 43.00	86	75-12	3 67-	131
t-1,2-Dichloroethene	50.0	00 40.23	80	70-12	4 61-	133
1,2-Dichloropropane	50.0	00 45.51	91	80-12	0 73-	127
1,3-Dichloropropane	50.0	00 47.85	96	80-12	0 73-	127
2,2-Dichloropropane	50.0	00 35.98		49-15	1 32-	168
1,1-Dichloropropene	50.0	00 42.13	84	76-12	0 69-	127
c-1,3-Dichloropropene	50.0		92	80-12		131
t-1,3-Dichloropropene	50.0			68-12		138

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 5030C EPA 8260B

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<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Ethylbenzene	50.00	50.91	102	80-120	73-127	
2-Hexanone	50.00	45.42	91	57-147	42-162	
Isopropylbenzene	50.00	54.54	109	80-127	72-135	
p-Isopropyltoluene	50.00	53.57	107	80-125	72-132	
Methylene Chloride	50.00	42.56	85	74-122	66-130	
4-Methyl-2-Pentanone	50.00	46.79	94	71-125	62-134	
Naphthalene	50.00	54.05	108	54-144	39-159	
n-Propylbenzene	50.00	53.61	107	80-127	72-135	
Styrene	50.00	53.10	106	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	52.06	104	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	44.57	89	78-126	70-134	
Tetrachloroethene	50.00	51.02	102	57-141	43-155	
Toluene	50.00	46.97	94	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	53.09	106	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	52.27	105	57-153	41-169	
1,1,1-Trichloroethane	50.00	44.05	88	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.37	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	47.97	96	80-120	73-127	
Trichloroethene	50.00	43.61	87	80-120	73-127	
Trichlorofluoromethane	50.00	48.17	96	64-136	52-148	
1,2,3-Trichloropropane	50.00	46.67	93	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	52.60	105	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	55.26	111	80-126	72-134	
Vinyl Acetate	50.00	30.01	60	34-172	11-195	
Vinyl Chloride	50.00	48.52	97	67-127	57-137	
p/m-Xylene	100.0	112.0	112	80-127	72-135	
o-Xylene	50.00	54.72	109	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.76	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0110 EPA 5030C EPA 8260B

09/02/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepa		ed LCS Batch N	umber
099-14-316-2943	LCS	Aqueous	GC/MS V \	09/07/16	09/07/16 15	58 160907L041	
<u>Parameter</u>		Spike Added (	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone		50.00	51.90	104	12-150	0-173	
Benzene		50.00	14.34	89	80-120	73-127	
Bromobenzene		50.00	49.26	99	80-120	73-127	
Bromochloromethane		50.00	45.58	91	80-122	73-129	
Bromodichloromethane		50.00	47.70	95	80-123	73-130	
Bromoform		50.00	46.36	93	74-134	64-144	
Bromomethane		50.00	43.20	86	22-160	0-183	
2-Butanone		50.00	46.47	93	44-164	24-184	
n-Butylbenzene		50.00	51.27	103	80-132	71-141	
sec-Butylbenzene		50.00	52.64	105	80-129	72-137	
tert-Butylbenzene		50.00	51.63	103	80-130	72-138	
Carbon Disulfide		50.00	43.61	87	60-126	49-137	
Carbon Tetrachloride		50.00	50.63	101	64-148	50-162	
Chlorobenzene		50.00	46.75	94	80-120	73-127	
Chloroethane		50.00	45.71	91	63-123	53-133	
Chloroform		50.00	14.25	88	79-121	72-128	
Chloromethane		50.00	39.56	79	43-133	28-148	
2-Chlorotoluene		50.00	49.90	100	80-130	72-138	
4-Chlorotoluene		50.00	49.99	100	80-121	73-128	
Dibromochloromethane		50.00	48.06	96	80-125	72-132	
1,2-Dibromo-3-Chloropropane		50.00	50.95	102	68-128	58-138	
1,2-Dibromoethane		50.00	47.80	96	80-120	73-127	
Dibromomethane		50.00	45.93	92	80-121	73-128	
1,2-Dichlorobenzene		50.00	49.53	99	80-120	73-127	
1,3-Dichlorobenzene		50.00	48.34	97	80-121	73-128	
1,4-Dichlorobenzene		50.00	46.74	93	80-120	73-127	
Dichlorodifluoromethane		50.00	48.96	98	25-187	0-214	
1,1-Dichloroethane		50.00	46.22	92	75-120	68-128	
1,2-Dichloroethane		50.00	45.44	91	80-123	73-130	
1,1-Dichloroethene		50.00	42.51	85	74-122	66-130	
c-1,2-Dichloroethene		50.00	46.40	93	75-123	67-131	
-1,2-Dichloroethene		50.00	46.73	93	70-124	61-133	
1,2-Dichloropropane		50.00	47.88	96	80-120	73-127	
1,3-Dichloropropane		50.00	47.00	94	80-120	73-127	
2,2-Dichloropropane		50.00		82	49-151	32-168	
1,1-Dichloropropene		50.00	46.14	92	76-120	69-127	
c-1,3-Dichloropropene		50.00	49.89	100	80-124	73-131	
t-1,3-Dichloropropene			48.78	98	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0110 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

Page 20 of 20

<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	48.99	98	80-120	73-127	
2-Hexanone	50.00	48.08	96	57-147	42-162	
Isopropylbenzene	50.00	51.97	104	80-127	72-135	
p-Isopropyltoluene	50.00	53.01	106	80-125	72-132	
Methylene Chloride	50.00	45.81	92	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.90	100	71-125	62-134	
Naphthalene	50.00	51.54	103	54-144	39-159	
n-Propylbenzene	50.00	50.04	100	80-127	72-135	
Styrene	50.00	51.98	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	47.81	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	47.00	94	78-126	70-134	
Tetrachloroethene	50.00	50.69	101	57-141	43-155	
Toluene	50.00	47.68	95	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.47	101	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	48.87	98	57-153	41-169	
1,1,1-Trichloroethane	50.00	45.34	91	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	49.65	99	58-148	43-163	
1,1,2-Trichloroethane	50.00	46.43	93	80-120	73-127	
Trichloroethene	50.00	45.54	91	80-120	73-127	
Trichlorofluoromethane	50.00	48.32	97	64-136	52-148	
1,2,3-Trichloropropane	50.00	49.43	99	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	50.50	101	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.12	102	80-126	72-134	
Vinyl Acetate	50.00	33.97	68	34-172	11-195	
Vinyl Chloride	50.00	45.26	91	67-127	57-137	
p/m-Xylene	100.0	104.1	104	80-127	72-135	
o-Xylene	50.00	52.70	105	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	48.05	96	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



# **Sample Analysis Summary Report**

Work Order: 16-09-0110				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	1068	BUR03	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	1067	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



# **Glossary of Terms and Qualifiers**

Work Order: 16-09-0110 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without furthe clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.

- % Recovery and/or RPD out-of-range.
- Χ
- Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

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924 Anacapa St. Suite 4A	_						PROJE	PROJECT CONTACT:	ACT:						SA	SAMPLER(S): (PRINT)	: (PRINT)			
o⊓Y: Santa Barbara			STATE:	CA ZIP:	93101		Kev	Kevin Coffman	an						<u>×</u>	enjo Ag	Kenjo Agustsson 🖊 🖈	4		Contra
TEL: 805-897-3800	E-MAIL: KCo	KCoffman@geosyntec.com	osyntec.c	WO WO							82	EQUE	REQUESTED ANALYSES	ANA	LYSE	S				
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06/02/14 Revision

Page 72 of 76



Received by: (Signature/Affiliation)

Relinquished by: (Signature)





ORIGIN ID:IYKA (000) 000-0000 MICHAEL CRONIN GEOSYNTEC CONSULTANTS 924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101 UNITED STATES US

RECEIVING
CALSCIENCE
7440 LINCOLN WAY

| SHIP DATE: 01SEP16 | ACTWGT: 53.30 LB | CAD: 006994322/SSFE1704 | DIMS: 23x16x16 IN

BILL THIRD PARTY

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**GARDEN GROVE CA 92841** 

(714) 895 - 5494

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DEPT:



FedEx Express

Part # 156297-435 RIT2 EXP 04/17

1 of 2 TRK# 7839 8447 8696 ## MASTER ##

92 APVA

FRI - 02 SEP 10:30A PRIORITY OVERNIGHT AHS 92841 CA-US SNA



Calscience

WORK ORDER NUMBER: 16-09- 24 of 76 €

SAMPLE RECEIPT CHECKLIST

COOLER \_ 1 \_ OF \_ \_ \_ \_

CLIENT: _	Geosyn	nhec	DATE: <b>09</b> / <u>02</u> / 2	2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 5 · + °C (w/ CF): 5 · + °C; □ Blank □ Sample						
□ Sample(s) outside temperature criteria (PM/APM contacted by:)						
☐ Sample(s) outside temperature criteria but received on ice/chill		sampling				
☐ Sample(s) outside temperature criteria but received on ice/critici ☐ Sample(s) received at ambient temperature; placed on ice for trans		Samping				
Ambient Temperature:   Air   Filter	isport by courier		Checke	ed by:	ς l	
Anibient Temperature. Li Ali Li Intel				J·		
CUSTODY SEAL:					(	
	Not Present	□ N/A		ed by:	1	
Sample(s)	Not Present	□ N/A	Checke	ed by: <u>(0</u>		
SAMPLE CONDITION:			Yes	No	N/A	
Chain-of-Custody (COC) document(s) received with samples			Ø			
COC document(s) received complete						
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of co						
☐ No analysis requested ☐ Not relinquished ☐ No relinquishe		quished time	,			
Sampler's name indicated on COC						
Sample container label(s) consistent with COC						
Sample container(s) intact and in good condition						
Proper containers for analyses requested						
Sufficient volume/mass for analyses requested			Ø			
Samples received within holding time						
Aqueous samples for certain analyses received within 15-minute	holding time				,	
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved					Ø	
Proper preservation chemical(s) noted on COC and/or sample conta	ainer		Ø			
Unpreserved aqueous sample(s) received for certain analyses						
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			,			
Container(s) for certain analysis free of headspace			Ø			
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolve						
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hy					_	
Tedlar™ bag(s) free of condensation				□ <\\\\(\)(\)(\)(\)	Ø	
CONTAINER TYPE:	(Trip Blanl	CLot Number	er:(	008 12	)	
Aqueous: ☐ VOA ☑ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐	125AGB □ 125AG	Bh □ 125A	GBp ╭⁄Z′	125PB		
□ 125PBznna □ 250AGB □ 250CGB □ 250CGBs □ 250PB □	250PBn □ 500AGI	B □ 500AG	J 🗆 500 <i>i</i>	AGJs		
□ 500PB ፲ 1AGB □ 1AGBna₂ 対 1AGBs 対 1PB □ 1PBna ば	250 PBNF 0	0			_	
Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ En	nCores® () □	TerraCores <sup>®</sup>	()		<del></del>	
Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □						
Container: <b>A</b> = Amber, <b>B</b> = Bottle, <b>C</b> = Clear, <b>E</b> = Envelope, <b>G</b> = Glass, <b>J</b> =						
Preservative: <b>b</b> = buffered, <b>f</b> = filtered, <b>h</b> = HCl, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOH, <b>na</b> <sub>2</sub>	$= Na_2S_2O_3, p = H_3PO_3$	D <sub>4</sub> , Labele			017	
$\mathbf{s} = H_2SO_4$ , $\mathbf{u} = \text{ultra-pure}$ , $\mathbf{znna} = \text{Zn} (CH_3CO_2)_2 + \text{NaOH}$			Review	ed by: <u>109</u>	3//18	

Calscience

WORK ORDER NUMBER: 16-09- CI)D

# **SAMPLE ANOMALY REPORT**

DATE: 09 / 52 / 2016

SAMPLES, CONTAINERS, AND LABELS:	Comments
☐ Sample(s) NOT RECEIVED but listed on COC	
☐ Sample(s) received but NOT LISTED on COC	
☐ Holding time expired (list client or ECI sample ID and analysis)	
☐ Insufficient sample amount for requested analysis (list analysis)	
☐ Improper container(s) used (list analysis)	
☐ Improper preservative used (list analysis)	
☐ No preservative noted on COC or label (list analysis and notify lab)	
☐ Sample container(s) not labeled	
☐ Client sample label(s) illegible (list container type and analysis)	
☐ Client sample label(s) do not match COC (comment)	
☐ Project information	
☐ Client sample ID	
☐ Sampling date and/or time	<u> </u>
☐ Number of container(s)	GI) Received 2 x 1 liter borken.
☐ Requested analysis	(Svoc) and (TKN)
☑ Sample container(s) compromised (comment)	
☑ Broken	(2) Received 1 × 250 glass bottle
☐ Water present in sample container	<u>broken.</u> Cphosphale, Fotal)
☐ Air sample container(s) compromised (comment)	(0) 0
□ Flat	(-3) Received 1 vial broken.
☐ Very low in volume	
☐ Leaking (not transferred; duplicate bag submitted)	
□ Leaking (transferred into ECI Tedlar™ bags*)	
□ Leaking (transferred into client's Tedlar™ bags*)	
* Transferred at client's request.	
MISCELLANEOUS: (Describe)	Comments
HEADSPACE:	
(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)	(Containers with bubble for other analysis)
ECI ECI Total ECI ECI Total	ECI ECI Total Sample ID Container ID Number** Requested Analysis
Sample ID Container ID Number** Sample ID Container ID Number**	
Comments	
Comments:	Reported by: 1017
the post the total number of containers (i.e. viols or hottless) for the affected cample	Reported by: 1017 Reviewed by: 27/
** Record the total number of containers (i.e., vials or bottles) for the affected sample.	

# rn to Contents

#### Hoaibao Nguyen

From: Michael Cronin [MCronin@Geosyntec.com]
Sent: Friday, September 02, 2016 8:17 AM

To: Hoaibao Nguyen

Cc: Stephen Nowak; Kevin Coffman; Kenjo Agustsson

Subject: Samples coming in today

Follow Up Flag: Follow up Flag Status: Flagged

Good morning Tina,

I'm just Following up on our conversation from yesterday. For the sample were we had our 250 ml glass H2SO4 bottle break (phosphate I think) I believe, we can use additional volume from the 2x25ml glass or 2x1L Amber H2SO4 to run the broken bottle.

please note on the COC I need to make a correction. I had left the field for phosphate blank when the bottle broke. It needs to be filled in. My photo is unreadable so I can't send a revised COC. I will need a copy of the COC sent to Kevin Coffman for correction.

Michael

Sent from my iPhone



# Calscience



# WORK ORDER NUMBER: 16-09-0112

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Moude

Suite 4A

Santa Barbara, CA 93101-2177

ResultLink )

Email your PM >

Approved for release on 09/14/2016 by:

Stephen Nowak Project Manager

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name:	CG Roxane / SB0794
Work Order Number:	16-09-0112

1	Work Order Narrative	3
2	Sample Summary	4
3	Detections Summary	5
4	Client Sample Data.  4.1 EPA 300.0 Anions (Aqueous).  4.2 EPA 200.7 ICP Metals (Aqueous).  4.3 EPA 6020/7470A CAC Title 22 Metals, Total (Aqueous).  4.4 EPA 6020/7470A CAC Title 22 Metals, Filtered (Aqueous).  4.5 EPA 7470A Mercury (Aqueous).  4.6 EPA 7470A Mercury (Aqueous).  4.7 EPA 8270C Semi-Volatile Organics (Aqueous).  4.8 EPA 8260B Volatile Organics (Aqueous).	7 8 9 12 15 16 17 26
5	4.9 Combined Inorganic Tests.  Quality Control Sample Data. 5.1 MS/MSD. 5.2 PDS/PDSD. 5.3 Sample Duplicate. 5.4 LCS/LCSD.	34 35 35 45 46 50
6	Sample Analysis Summary	68
7	Glossary of Terms and Qualifiers	69
8	Chain-of-Custody/Sample Receipt Form	70



#### **Work Order Narrative**

Work Order: 16-09-0112 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/02/16. They were assigned to Work Order 16-09-0112.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



#### **Sample Summary**

Client: Geosyntec Consultants Work Order: 16-09-0112 CG Roxane / SB0794 Project Name:

924 Anacapa Street, Suite 4A PO Number: Santa Barbara, CA 93101-2177

Date/Time 09/02/16 10:10 Received:

> Number of 36

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-01-090116	16-09-0112-1	09/01/16 09:29	17	Aqueous
QCTB-090116	16-09-0112-2	09/01/16 09:29	2	Aqueous
MW-02-090116	16-09-0112-3	09/01/16 11:11	17	Aqueous





#### **Detections Summary**

Client: Geosyntec Consultants Work Order: 16-09-0112

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/02/16

Attn: Kevin Coffman Page 1 of 2

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	<u>Extraction</u>
MW-01-090116 (16-09-0112-1)						
Calcium	19.8		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.28		1.00	mg/L	EPA 200.7	N/A
Sodium	13.2		5.00	mg/L	EPA 200.7	N/A
Chloride	1.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	13		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00956		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0217		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00440		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00273		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00783		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0377		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00132		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00361		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00499		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00159		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00656		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0178		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	62.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	62.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.84		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.16		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.49		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.24		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	1.0		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



# **Detections Summary**

Client: Geosyntec Consultants

Work Order: 16-09-0112

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 09/02/16

Attn: Kevin Coffman Page 2 of 2

Client SampleID						
<u>Analyte</u>	<u>Result</u>	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	<b>Extraction</b>
MW-02-090116 (16-09-0112-3)						
Calcium	29.2		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.61		1.00	mg/L	EPA 200.7	N/A
Sodium	9.81		5.00	mg/L	EPA 200.7	N/A
Chloride	2.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	23		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00555		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0378		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00119		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00164		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00159		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00167		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00846		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00722		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0389		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00122		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00166		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00161		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00443		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0107		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	76.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	76.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	125		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.98		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.25		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.76		0.31	mg/L	SM 4500 P B/E	N/A
Total Nitrogen	0.98		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-F	09/01/16 09:29	Aqueous	IC 9	N/A	09/02/16 19:59	160902L01
Parameter		Result	RL		<u>DF</u>	Quali	<u>fiers</u>
Chloride		1.9	1.0		1.00		
Sulfate		13	1.0		1.00		

MW-02-090116	16-09-0112-3-F	09/01/16 11:11	Aqueous IC 9	N/A	09/02/16 160902L01 20:18
Parameter		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Chloride		2.7	1.0	1.00	
Sulfate		23	1.0	1.00	

Method Blank	099-12-906-6917	N/A	Aqueous	IC 9	N/A	09/02/16 10:51	160902L01
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qual	<u>ifiers</u>
Chloride		ND	1.0	)	1.00		
Sulfate		ND	1.0	)	1.00		



Magnesium

Sodium

#### **Analytical Report**

 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 200.7

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-J	09/01/16 09:29	Aqueous	ICP 7300	09/07/16	09/08/16 18:18	160907LA4A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		19.8	1.0	0	10.0		
Magnesium		2.28	1.0	0	10.0		
Sodium		13.2	5.0	0	10.0		
MW-02-090116	16-09-0112-3-J	09/01/16 11:11	Aqueous	ICP 7300	09/07/16	09/08/16 18:19	160907LA4A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		29.2	1.0	0	10.0		

Method Blank	097-01-012-6678	N/A	Aqueous	ICP 7300	09/07/16	09/08/16 15:57	160907LA4A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		ND	0.1	00	1.00		
Magnesium		ND	0.1	00	1.00		
Sodium		ND	0.5	00	1.00		

1.00

5.00

10.0

10.0

2.61

9.81



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-J	09/01/16 09:29	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:58	160907LA4
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0113	0.0	00100	1.00		
Barium		0.0377	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00132	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00361	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00499	0.0	00100	1.00		
Nickel		0.00159	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00656	0.0	00100	1.00		
Zinc		0.0178	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	16-09-0112-3-J	09/01/16 11:11	Aqueous	ICP/MS 03	09/07/16	09/08/16 21:01	160907LA4
Parameter		Result	RL	•	<u>DF</u>	Quali	ifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00722	0.0	00100	1.00		
Barium		0.0389	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00122	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00166	0.0	00100	1.00		
Nickel		0.00161	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00443	0.0	00100	1.00		
Zinc		0.0107	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5315	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-K	09/01/16 09:29	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:53	160907LA4F
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00956	0.0	00100	1.00		
Barium		0.0217	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00120	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00440	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		0.00273	0.0	00100	1.00		
Zinc		0.00783	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	16-09-0112-3-K	09/01/16 11:11	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:55	160907LA4F
<u>Parameter</u>	·	Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00555	0.0	00100	1.00		
Barium		0.0378	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00119	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00164	0.0	00100	1.00		
Nickel		0.00159	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00167	0.0	00100	1.00		
Zinc		0.00846	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/02/16 16-09-0112 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1206	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0112
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Total
Method:
EPA 7470A

Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-J	09/01/16 09:29	Aqueous	Mercury 04	09/07/16	09/08/16 12:51	160907LA3
<u>Parameter</u>		<u>Result</u>	RL		<u>DF</u>	Qua	<u>llifiers</u>
Mercury		ND	0.0	00500	1.00		
MW-02-090116	16-09-0112-3-J	09/01/16 11:11	Aqueous	Mercury 04	09/07/16	09/08/16 13:05	160907LA3
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	<u>llifiers</u>
Mercury		ND	0.0	00500	1.00		

Method Blank	099-04-008-7967	N/A	Aqueous	Mercury 05	09/07/16	09/07/16 17:27	160907LA3
<u>Parameter</u>		Result	RL		<u>DF</u>	Qual	<u>ifiers</u>
Mercury		ND	0.0	00500	1.00		





Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:

16-09-0112
Santa Barbara, CA 93101-2177
Preparation:
Method:
EPA 7470A

Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-K	09/01/16 09:29	Aqueous	Mercury 04	09/07/16	09/08/16 13:07	160907LA3F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-02-090116	16-09-0112-3-K	09/01/16 11:11	Aqueous	Mercury 05	09/07/16	09/08/16 13:09	160907LA3F
Parameter		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		

Method Blank	099-15-763-818	N/A	Aqueous Mercury 05	09/07/16	09/07/16 160907LA3F 17:27
Parameter		Result	<u>RL</u>	<u>DF</u>	Qualifiers
Mercury		ND	0.000500	1.00	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 3510C EPA 8270C

09/02/16

Units: ug/L Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	16-09-0112-1-N	09/01/16 09:29	Aqueous	GC/MS SS	09/03/16	09/08/16 13:44	160903L05
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.4		1.00		
Acenaphthylene		ND	9.4		1.00		
Aniline		ND	9.4		1.00		
Anthracene		ND	9.4		1.00		
Azobenzene		ND	9.4		1.00		
Benzidine		ND	47		1.00		
Benzo (a) Anthracene		ND	9.4		1.00		
Benzo (a) Pyrene		ND	9.4		1.00		
Benzo (b) Fluoranthene		ND	9.4		1.00		
Benzo (g,h,i) Perylene		ND	9.4		1.00		
Benzo (k) Fluoranthene		ND	9.4		1.00		
Benzoic Acid		ND	47		1.00		
Benzyl Alcohol		ND	9.4		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.4		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.4		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.4		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.4		1.00		
Butyl Benzyl Phthalate		ND	9.4		1.00		
4-Chloro-3-Methylphenol		ND	9.4		1.00		
4-Chloroaniline		ND	9.4		1.00		
2-Chloronaphthalene		ND	9.4		1.00		
2-Chlorophenol		ND	9.4		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.4		1.00		
Chrysene		ND	9.4		1.00		
2,6-Dichlorophenol		ND	9.4		1.00		
Di-n-Butyl Phthalate		ND	9.4		1.00		
Di-n-Octyl Phthalate		ND	9.4		1.00		
Dibenz (a,h) Anthracene		ND	9.4		1.00		
Dibenzofuran		ND	9.4		1.00		
1,2-Dichlorobenzene		ND	9.4		1.00		
1,3-Dichlorobenzene		ND	9.4		1.00		
1,4-Dichlorobenzene		ND	9.4		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.4		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 9

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	
0.45 T : 11	ND	0.4	4.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

9.4

1.00

ND



Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	77	20-110	
Nitrobenzene-d5	70	40-110	
p-Terphenyl-d14	76	50-135	
Phenol-d6	73	10-115	
2,4,6-Tribromophenol	69	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 EPA 3510C EPA 8270C

Units:

s: ug/L Page 4 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	16-09-0112-3-N	09/01/16 11:11	Aqueous	GC/MS SS	09/03/16	09/08/16 14:03	160903L05
<u>Parameter</u>		<u>Result</u>	RL		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.4		1.00		
Acenaphthylene		ND	9.4		1.00		
Aniline		ND	9.4		1.00		
Anthracene		ND	9.4		1.00		
Azobenzene		ND	9.4		1.00		
Benzidine		ND	47		1.00		
Benzo (a) Anthracene		ND	9.4		1.00		
Benzo (a) Pyrene		ND	9.4		1.00		
Benzo (b) Fluoranthene		ND	9.4		1.00		
Benzo (g,h,i) Perylene		ND	9.4		1.00		
Benzo (k) Fluoranthene		ND	9.4		1.00		
Benzoic Acid		ND	47		1.00		
Benzyl Alcohol		ND	9.4		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.4		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.4		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.4		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.4		1.00		
Butyl Benzyl Phthalate		ND	9.4		1.00		
4-Chloro-3-Methylphenol		ND	9.4		1.00		
4-Chloroaniline		ND	9.4		1.00		
2-Chloronaphthalene		ND	9.4		1.00		
2-Chlorophenol		ND	9.4		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.4		1.00		
Chrysene		ND	9.4		1.00		
2,6-Dichlorophenol		ND	9.4		1.00		
Di-n-Butyl Phthalate		ND	9.4		1.00		
Di-n-Octyl Phthalate		ND	9.4		1.00		
Dibenz (a,h) Anthracene		ND	9.4		1.00		
Dibenzofuran		ND	9.4		1.00		
1,2-Dichlorobenzene		ND	9.4		1.00		
1,3-Dichlorobenzene		ND	9.4		1.00		
1,4-Dichlorobenzene		ND	9.4		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.4		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 5 of 9

<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

9.4

1.00

ND



Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	63	50-110	
2-Fluorophenol	72	20-110	
Nitrobenzene-d5	67	40-110	
p-Terphenyl-d14	72	50-135	
Phenol-d6	69	10-115	
2,4,6-Tribromophenol	65	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 3510C EPA 8270C

09/02/16

ug/L

Units:

Page 7 of 9

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-62	N/A	Aqueous	GC/MS SS	09/03/16	09/06/16 10:32	160903L05
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		
•							

RL: Reporting Limit. DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 8 of 9

,				1 3.9 5 5 5
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

10

1.00

ND



Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 5030C EPA 8260B

09/02/16

Units: ug/L Page 1 of 8

Project: CG Roxane / SB0794

Lab Sample Date/Time QC Batch ID Client Sample Number Matrix Instrument Date Date/Time Prepared Number Collected Analyzed 09/02/16 19:29 09/01/16 09:29 MW-01-090116 16-09-0112-1-A Aqueous **GC/MS RR** 09/02/16 160902L035 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00 1,2-Dichloropropane 1,3-Dichloropropane ND 1.0 1.00 ND 1.00 2,2-Dichloropropane 1.0

RL: Reporting Limit. DF: Dilution Factor. MD

MDL: Method Detection Limit.



Geosyntec Consultants

Date Received:

924 Anacapa Street, Suite 4A

Work Order:

16-09-0112

Santa Barbara, CA 93101-2177

Preparation:

Method:

EPA 8260B

Units:

ug/L

Project: CG Roxane / SB0794 Page 2 of 8

Project: CG Roxane / SB0794				Page 2 of 8
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	97	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	99	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 5030C EPA 8260B

09/02/16

ug/L

Units:

Page 3 of 8

Project: CG Roxane / SB0794

Lab Sample Date/Time QC Batch ID Client Sample Number Matrix Instrument Date Date/Time Prepared Number Collected Analyzed 09/02/16 22:11 09/01/16 09:29 QCTB-090116 16-09-0112-2-A Aqueous **GC/MS RR** 09/02/16 160902L035 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00 ND 1.0 1.00 1,2-Dichloropropane 1,3-Dichloropropane ND 1.0 1.00

RL: Reporting Limit.

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.00

ND



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 4 of 8

Project: CG Roxane / SB0794				Page 4 of 8
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	103	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	100	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 5030C EPA 8260B

09/02/16

ug/L

Units:

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Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	16-09-0112-3-A	09/01/16 11:11	Aqueous	GC/MS RR	09/02/16	09/02/16 22:43	160902L035
<u>Parameter</u>		<u>Result</u>	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 6 of 8
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	96	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	99	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 EPA 5030C EPA 8260B

ug/L

Units:

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Project: CG Roxane / SB0794

Method Blank         099-14-316-2937         N/A         Aqueous         GC/MSR R         09/02/10         100-00         100-00         100-00         20-11/10         20-11/15         Acetone         Result         BL         DE         Qualifiers         Acetone         ND         20-0         1,000         PROFESSOR         PROFESSOR         ND         1,00         1,00         1,00	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acetane         ND         20         1,00           Benzene         ND         0,50         1,00           Bromobenzene         ND         1,0         1,00           Bromochloromethane         ND         1,0         1,00           Bromochloromethane         ND         1,0         1,00           Bromoform         ND         1,0         1,00           Bromomethane         ND         10         1,00           2-Butanone         ND         10         1,00           2-Butylbenzene         ND         1,0         1,00           8-Butylbenzene         ND         1,0         1,00           1-Butylbenzene         ND         1,0         1,00           1-Butylbenzene         ND         1,0         1,00           Carbon Disulfide         ND         1,0         1,00           Carbon Ertenbloratene         ND         1,0         1,00           Chlorotenbare         ND         1,0         1,00           Chlorotenbare         ND         1,0         1,00           Chlorotenbare         ND         1,0         1,00           Chlorototluene         ND         1,0         1,00 <tr< th=""><th>Method Blank</th><th>099-14-316-2937</th><th>N/A</th><th>Aqueous</th><th>GC/MS RR</th><th>09/02/16</th><th>09/02/16 17:48</th><th>160902L035</th></tr<>	Method Blank	099-14-316-2937	N/A	Aqueous	GC/MS RR	09/02/16	09/02/16 17:48	160902L035
Benzene         ND         0.50         1.00           Bromoberzene         ND         1.0         1.00           Bromochichoromethane         ND         1.0         1.00           Bromoclichioromethane         ND         1.0         1.00           Bromodichioromethane         ND         1.0         1.00           Bromomethane         ND         1.0         1.00           2-Butanone         ND         1.0         1.00           -Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           ser-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chloroberzene         ND         1.0         1.00           Chloroform         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.0           4-Chlorotoluene         ND         1.0         1	<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           -Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Disulfide         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenbane         ND         1.0         1.00           Chlorobenbane         ND         1.0         1.00           Lj-Dibromo-S-Chloropropane         ND         1.0	Acetone		ND	20		1.00		
Bromodichloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         1.0         1.00           n-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chlorochtane         ND         1.0         1.00           L2-Dibromo-3-Chloropropane         ND         1.0         1.00           L2-Dibromoethane         ND         1.0	Benzene		ND	0.5	50	1.00		
Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butlanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Buylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chlorodenzene         ND         1.0         1.00           Chlorodenzene         ND         1.0         1.00           Chlorodenzene         ND         1.0         1.00           Chlorodenthane         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           Dibromomethane         ND         1.0         1.00           1,2-Dibromosachioromethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0	Bromobenzene		ND	1.0	)	1.00		
Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         1.0         1.00           Chlorofothune         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           1-2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibriorobenzene         ND         1.0	Bromochloromethane		ND	1.0	)	1.00		
Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorochane         ND         1.0         1.00           Chlorochane         ND         1.0         1.00           Chlorochane         ND         1.0         1.00           Chlorochane         ND         1.0         1.00           Chlorochorom         ND         1.0         1.00           Chlorochorom         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           2-Chlorochoromethane         ND         1.0         1.00           1,2-Dichromo-3-Chloropropane         ND         1.0         1.00           1,2-Dichlorochane         ND         1.0         1.00           1,2-Dichlorochane         ND         1.0	Bromodichloromethane		ND	1.0	)	1.00		
2-Butanone         ND         1.0         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           terr-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroethane         ND         1.0         1.00           Chlororothane         ND         1.0         1.00           Chlororothane         ND         1.0         1.00           Chlororothane         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0	Bromoform		ND	1.0	)	1.00		
n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotopropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibrlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,1-Dichloroethane <t< td=""><td>Bromomethane</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></t<>	Bromomethane		ND	10		1.00		
sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chloroethane         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1-2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND </td <td>2-Butanone</td> <td></td> <td>ND</td> <td>10</td> <td></td> <td>1.00</td> <td></td> <td></td>	2-Butanone		ND	10		1.00		
tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroffr         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1-2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane	n-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethene	sec-Butylbenzene		ND	1.0	)	1.00		
Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         0.50         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane	tert-Butylbenzene		ND	1.0	)	1.00		
Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene <th< td=""><td>Carbon Disulfide</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></th<>	Carbon Disulfide		ND	10		1.00		
Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloropropane	Carbon Tetrachloride		ND	0.5	50	1.00		
Chloroform         ND         1.00         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorotethane         ND         1.0         1.00           1,1-Dichlorotethane         ND         1.0         1.00           1,2-Dichlorotethene         ND         1.0         1.00           1,1-Dichlorotethene         ND         1.0         1.00           1,2-Dichlorotethene         ND         1.0         1.00           1,2-Dichloropropane         ND         1.0         1.00           1,2-Dichloroprop	Chlorobenzene		ND	1.0	)	1.00		
Chloromethane       ND       10       1.00         2-Chlorotoluene       ND       1.0       1.00         4-Chlorotoluene       ND       1.0       1.00         bibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,4-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Chloroethane		ND	5.0	)	1.00		
2-Chlorotoluene       ND       1.0       1.00         4-Chlorotoluene       ND       1.0       1.00         Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Chloroform		ND	1.0	)	1.00		
4-Chlorotoluene       ND       1.0       1.00         Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane	Chloromethane		ND	10		1.00		
Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           Dibromomethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1-1,2-Dichloroethene         ND         1.0         1.00           1-2-Dichloroptopane         ND         1.0         1.00           1,2-Dichloroptopane         ND         1.0         1.00           1,3-Dichloroptopane         ND         1.0         1.00	2-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	4-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1-,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dibromochloromethane		ND	1.0	)	1.00		
Dibromomethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         0.50         1.00           1,2-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           t-1,2-Dichloroethene         ND         1.0         1.00           t-2-Dichloropropane         ND         1.0         1.00           1,2-Dichloropropane         ND         1.0         1.00	1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       0.50       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dibromoethane		ND	1.0	)	1.00		
1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dibromomethane		ND	1.0	)	1.00		
1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethane         ND         0.50         1.00           1,1-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           t-1,2-Dichloroethene         ND         1.0         1.00           1,2-Dichloropropane         ND         1.0         1.00           1,3-Dichloropropane         ND         1.0         1.00	1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,4-Dichlorobenzene		ND	1.0	)	1.00		
1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,1-Dichloroethane		ND	1.0	)	1.00		
c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichloroethane		ND	0.5	50	1.00		
c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00			ND	1.0	)	1.00		
t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	·							
1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00								
1,3-Dichloropropane ND 1.0 1.00	·							
	, ,							

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 8 of 8
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	96	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	98	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/02/16 16-09-0112

Page 1 of 1

Client Sample Number	Lab Sample Number						me Collected	Matrix
MW-01-090116			16-09	9-0112-1		09/01/1	6 09:29	Aqueous
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	62.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	62.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	105	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.16	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.49	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.24	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	1.0	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc

MW-02-090116			16-09	9-0112-3		09/01/16	11:11	Aqueous
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	76.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	76.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	125	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	0.98	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.25	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.76	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	0.98	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc

Method Blank						N/A		Aqueous
Parameter	Results	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:

Santa Barbara, CA 93101-2177
Preparation:

Method:

Date Received:

09/02/16

N/A

EPA 300.0

Project: CG Roxane / SB0794 Page 1 of 10

Quality Control Sample ID	Туре		Matrix	Instr	ument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0110-1	Sample		Aqueou	s IC 9		N/A	09/02/16	16:38	160902S01	
16-09-0110-1	Matrix Spike		Aqueou	s IC 9		N/A	09/02/16	17:16	160902S01	
16-09-0110-1	Matrix Spike	Duplicate	Aqueou	s IC 9		N/A	09/02/16	17:35	160902S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	4.634	50.00	43.26	77	44.28	79	80-120	2	0-20	3
Sulfate	13.58	50.00	54.87	83	55.67	84	80-120	1	0-20	





 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500 P B/E

 Project: CG Roxane / SB0794
 Page 2 of 10

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Analyzed		MS/MSD Batch Number	
MW-01-090116	Sample		Aqueous	UV	8	09/03/16	09/03/16	11:15	G0903TPS1	
MW-01-090116	Matrix Spike		Aqueous	. UV	8	09/03/16	09/03/16	11:15	G0903TPS1	
MW-01-090116	Matrix Spike I	Duplicate	Aqueous	UV	8	09/03/16	09/03/16	11:15	G0903TPS1	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1590	0.4000	0.4910	83	0.4853	82	70-130	1	0-25	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0112 N/A

09/02/16

Method:

SM 4500 P B/E

Project: CG Roxane / SB0794 Page 3 of 10

Quality Control Sample ID	Туре		Matrix Instrument		ıment	Date Prepared	Date Analyzed		MS/MSD Bat	ch Number
MW-01-090116	Sample		Aqueous UV 8			09/03/16	09/03/16	11:15	G0903PO4S	1
MW-01-090116	Matrix Spike		Aqueous	UV 8		09/03/16	09/03/16	11:15	G0903PO4S	1
MW-01-090116	Matrix Spike Du	plicate	Aqueous	UV 8		09/03/16	09/03/16	11:15	G0903PO4S	1
Parameter		<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4864 1	1.220	1.502	83	1.485	82	70-130	1	0-25	



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500-NO3 E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0110-2	Sample		Aqueous	UV	8	09/02/16	09/02/16	17:09	FG0902NO3	S
16-09-0110-2	Matrix Spike		Aqueous	UV	8	09/02/16	09/02/16	17:09	FG0902NO3	s
16-09-0110-2	Matrix Spike	Duplicate	Aqueous	UV	8	09/02/16	09/02/16	17:09	FG0902NO3	s
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4533	91	0.4519	90	70-130	0	0-25	



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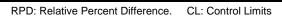
 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 5540C

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
MW-02-090116	Sample		Aqueou	s UV	/ 9	09/02/16	09/02/16	17:10	G0902SURS	<b>S</b> 1
MW-02-090116	Matrix Spike		Aqueou	s UV	/ 9	09/02/16	09/02/16	17:10	G0902SURS	§1
MW-02-090116	Matrix Spike	Duplicate	Aqueou	s UV	/ 9	09/02/16	09/02/16	17:10	G0902SURS	S1
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9568	96	0.9365	94	70-130	2	0-25	





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EPA 200.7

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0040-7	Sample		Aqueou	ıs ICI	P 7300	09/07/16	09/09/16	11:05	160907SA4	
16-09-0040-7	Matrix Spike		Aqueou	ıs ICI	P 7300	09/07/16	09/09/16	11:02	160907SA4	
16-09-0040-7	Matrix Spike	Duplicate	Aqueou	ıs ICI	P 7300	09/07/16	09/09/16	11:03	160907SA4	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q



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Quality Control Sample ID	Туре		Matrix	I	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0324-1	Sample		Aqueous	5 I	CP/MS 03	09/07/16	09/08/16	20:30	160907SA4	
16-09-0324-1	Matrix Spike		Aqueous	s 1	CP/MS 03	09/07/16	09/08/16	20:25	160907SA4	
16-09-0324-1	Matrix Spike I	Duplicate	Aqueous	s 1	CP/MS 03	09/07/16	09/08/16	20:27	160907SA4	
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.1081	108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.1026	101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.4352	107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09387	94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09938	99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.1010	101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09174	92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.2724	81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.1131	112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.1178	115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09450	88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09916	99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05503	110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.1084	108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09900	97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.2383	61	43-145	4	0-39	



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Quality Control Sample ID	Type		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0181-6	Sample		Aqueous	Ме	ercury 05	09/07/16	09/07/16	17:49	160907SA3	
16-09-0181-6	Matrix Spike		Aqueous	. Me	ercury 05	09/07/16	09/07/16	17:36	160907SA3	
16-09-0181-6	Matrix Spike	Duplicate	Aqueous	. Me	ercury 05	09/07/16	09/07/16	17:47	160907SA3	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	





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MW-01-090116 Ma  MW-01-090116 Ma  Parameter  Acetone  Benzene  Bromobenzene	ample atrix Spike atrix Spike I Sample Conc. ND ND ND	Spike Added 50.00	Aqueous Aqueous Aqueous MS Conc.	G	C/MS RR C/MS RR C/MS RR	09/02/16 09/02/16 09/02/16		20:01	160902S014 160902S014	
MW-01-090116 Ma  Parameter  Acetone Benzene Bromobenzene	Sample Conc. ND	Spike Added 50.00	Aqueous  MS Conc.	GC	C/MS RR					
Parameter  Acetone Benzene Bromobenzene	Sample Conc. ND ND	Spike Added 50.00	MS Conc.			09/02/16	09/02/16	20-34	1600026014	
Acetone Benzene Bromobenzene	Conc. ND ND	<u>Added</u> 50.00	Conc.	MS	MeD			_0.0.	1009023014	
Benzene Bromobenzene	ND			<u>%Rec.</u>	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Bromobenzene			34.68	69	34.21	68	22-178	1	0-26	
	ND	50.00	42.33	85	42.25	84	70-130	0	0-20	
Dunana alala sa sa ath a c		50.00	43.42	87	43.84	88	70-130	1	0-20	
Bromochloromethane	ND	50.00	44.51	89	44.38	89	70-132	0	0-20	
Bromodichloromethane	ND	50.00	46.46	93	45.97	92	69-135	1	0-20	
Bromoform	ND	50.00	47.80	96	47.40	95	70-133	1	0-20	
Bromomethane	ND	50.00	48.40	97	48.81	98	11-167	1	0-32	
2-Butanone	ND	50.00	37.51	75	38.83	78	39-159	3	0-21	
n-Butylbenzene	ND	50.00	42.86	86	43.38	87	62-152	1	0-28	
sec-Butylbenzene	ND	50.00	43.94	88	43.18	86	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	46.42	93	45.33	91	70-140	2	0-20	
Carbon Disulfide	ND	50.00	43.20	86	41.54	83	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	52.19	104	50.75	101	63-153	3	0-22	
Chlorobenzene	ND	50.00	42.78	86	43.15	86	70-130	1	0-20	
Chloroethane	ND	50.00	42.63	85	43.83	88	44-140	3	0-32	
Chloroform	ND	50.00	44.19	88	43.16	86	68-134	2	0-20	
Chloromethane	ND	50.00	46.85	94	47.43	95	20-158	1	0-40	
2-Chlorotoluene	ND	50.00	43.52	87	44.29	89	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	43.29	87	42.61	85	70-130	2	0-20	
Dibromochloromethane	ND	50.00	46.94	94	47.55	95	70-133	1	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	43.89	88	43.66	87	67-133	1	0-20	
1,2-Dibromoethane	ND	50.00	43.91	88	44.25	89	70-130	1	0-20	
Dibromomethane	ND	50.00	44.35	89	44.55	89	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	42.66	85	42.52	85	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	42.79	86	41.99	84	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	41.36	83	41.10	82	70-130	1	0-20	
Dichlorodifluoromethane	ND	50.00	49.40	99	45.59	91	10-190	8	0-40	
1,1-Dichloroethane	ND	50.00	44.48	89	44.38	89	64-130	0	0-20	
1,2-Dichloroethane	ND	50.00	43.86	88	43.03	86	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	40.07	80	33.59	67	51-153	18	0-21	
c-1,2-Dichloroethene	ND	50.00	44.47	89	43.78	88	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	44.58	89	43.51	87	68-134	2	0-20	
1,2-Dichloropropane	ND	50.00	44.01	88	43.74	87	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	43.10	86	43.54	87	70-130	1	0-20	
2,2-Dichloropropane	ND	50.00	50.43	101	47.92	96	37-169	5	0-23	



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<u>Parameter</u>	Sample Conc.	Spike Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	44.25	88	43.20	86	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	47.51	95	47.39	95	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	48.55	97	48.91	98	58-136	1	0-20	
Ethylbenzene	ND	50.00	44.18	88	43.94	88	70-134	1	0-24	
2-Hexanone	ND	50.00	39.11	78	42.09	84	59-149	7	0-20	
Isopropylbenzene	ND	50.00	44.93	90	45.44	91	70-141	1	0-27	
p-Isopropyltoluene	ND	50.00	43.62	87	42.73	85	65-143	2	0-39	
Methylene Chloride	ND	50.00	43.69	87	42.56	85	69-130	3	0-21	
4-Methyl-2-Pentanone	ND	50.00	41.39	83	42.40	85	67-139	2	0-20	
Naphthalene	ND	50.00	42.58	85	43.83	88	61-139	3	0-20	
n-Propylbenzene	ND	50.00	44.20	88	45.01	90	70-140	2	0-24	
Styrene	ND	50.00	45.24	90	44.41	89	18-174	2	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	47.65	95	48.28	97	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	43.78	88	43.48	87	70-137	1	0-20	
Tetrachloroethene	ND	50.00	31.61	63	31.71	63	33-147	0	0-30	
Toluene	ND	50.00	43.75	87	43.73	87	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	41.59	83	41.76	84	64-142	0	0-22	
1,2,4-Trichlorobenzene	ND	50.00	41.88	84	41.96	84	60-144	0	0-24	
1,1,1-Trichloroethane	ND	50.00	44.00	88	42.97	86	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	44.82	90	35.38	71	21-190	24	0-40	
1,1,2-Trichloroethane	ND	50.00	42.70	85	43.68	87	70-130	2	0-20	
Trichloroethene	ND	50.00	43.21	86	42.98	86	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	48.13	96	45.38	91	54-162	6	0-30	
1,2,3-Trichloropropane	ND	50.00	41.52	83	45.13	90	67-130	8	0-20	
1,2,4-Trimethylbenzene	ND	50.00	43.09	86	41.79	84	70-133	3	0-20	
1,3,5-Trimethylbenzene	ND	50.00	43.55	87	43.44	87	70-139	0	0-20	
Vinyl Acetate	ND	50.00	13.68	27	12.95	26	10-190	5	0-40	
Vinyl Chloride	ND	50.00	53.71	107	52.43	105	59-137	2	0-20	
p/m-Xylene	ND	100.0	87.00	87	86.80	87	67-145	0	0-28	
o-Xylene	ND	50.00	44.11	88	44.31	89	70-142	0	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.17	86	42.46	85	69-130	2	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

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Quality Control Sample ID	Туре	N	//atrix	Instrument	Date Prepared Date		S/PDSD Batch nber	
16-09-0324-1	Sample	A	Aqueous	ICP/MS 03	09/07/16 00:00 09/0	8/16 20:30 160	907SA4	
16-09-0324-1	PDS	A	Aqueous	ICP/MS 03	09/07/16 00:00 09/1	2/16 17:39 160	907SA4	
<u>Parameter</u>		Sample Conc.	Spike Added	d PDS Conc.	PDS %Rec.	%Rec. CL	<u>Qualifiers</u>	
Antimony		ND	0.1000	0.1009	101	75-125		
Arsenic		0.001808	0.1000	0.09358	92	75-125		
Barium		0.3280	0.1000	0.4118	84	75-125		
Beryllium		ND	0.1000	0.09672	97	75-125		
Cadmium		ND	0.1000	0.09175	92	75-125		
Chromium		ND	0.1000	0.08458	85	75-125		
Cobalt		ND	0.1000	0.08526	85	75-125		
Copper		0.1914	0.1000	0.2549	63	75-125	5	
Lead		0.001455	0.1000	0.1080	107	75-125		
Molybdenum		0.003077	0.1000	0.1144	111	75-125		
Nickel		0.006382	0.1000	0.08935	83	75-125		
Selenium		ND	0.1000	0.09117	91	75-125		
Silver		ND	0.05000	0.04668	93	75-125		
Thallium		ND	0.1000	0.1030	103	75-125		
Vanadium		0.001499	0.1000	0.09431	93	75-125		

0.1000

0.2517

75

0.1771



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16-09-0112 N/A

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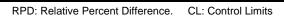
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	Sample	Aqueous	BUR03	N/A	09/02/16 21:40	G0902ALKD1
16-09-0082-4	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/02/16 21:40	G0902ALKD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		465.0	461.0	1	0-25	





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	Sample	Aqueous	BUR03	N/A	09/02/16 21:40	G0902HCOD1
16-09-0082-4	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/02/16 21:40	G0902HCOD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		465.0	461.0	1	0-25	



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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	Sample	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
16-09-0109-3	Sample Duplicate	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1670	1685	1	0-20	





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	Sample	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
16-09-0086-3	Sample Duplicate	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kieldahl Nitrogen		74.90	73.92	1	0-25	





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ed	LCS/LCSD Batch Number
32	160902L01
:51	160902L01

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pr	repared	Date	Analyzed	LCS/LCSD E	atch Number
099-12-906-6917	LCS	Aqu	ieous	IC 9	N/A		09/02	2/16 11:32	160902L01	
099-12-906-6917	LCSD	Aqu	ieous	IC 9	N/A		09/02	2/16 11:51	160902L01	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec	. CL	RPD	RPD CL	<u>Qualifiers</u>
Chloride	50.00	48.05	96	48.20	96	90-11	0	0	0-15	
Sulfate	50.00	50.12	100	50.23	100	90-11	0	0	0-15	





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Quality Control Sample ID	Туре	Ма	trix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-15-859-1055	LCS	Aq	ueous	PH1/BUR03	N/A	09/0	2/16 21:40	G0902ALKB1	
099-15-859-1055	LCSD	Aq	ueous	PH1/BUR03	N/A	09/0	2/16 21:40	G0902ALKB1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	101.0	101	99.00	99	80-120	2	0-20	





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16-09-0112 N/A

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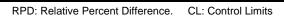
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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-12-180-5233	LCS	Aqı	ieous	N/A	09/07/16	09/0	7/16 19:00	G0907TDSL1	
099-12-180-5233	LCSD	Aqı	ieous	N/A	09/07/16	09/0	7/16 19:00	G0907TDSL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	95.00	95	80-120	5	0-20	







Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

09/02/16 16-09-0112 N/A

SM 4500 P B/E

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matı	ix	Instrument	Date Prep	ared Date	Analyzed	LCS/LCSD Ba	tch Number
099-05-098-2787	LCS	Aqu	eous	UV 8	09/03/16	09/0	3/16 11:15	G0903TPL1	
099-05-098-2787	LCSD	Aqu	eous	UV 8	09/03/16	09/0	3/16 11:15	G0903TPL1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4244	106	0.4256	106	80-120	0	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: 09/02/16 16-09-0112 N/A

Method:

SM 4500 P B/E

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	tch Number
099-14-276-202	LCS	Aqı	ieous	UV 8	09/03/16	09/0	3/16 11:15	G0903PO4L1	
099-14-276-202	LCSD	Aqı	ieous	UV 8	09/03/16	09/0	3/16 11:15	G0903PO4L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Total Phosphate	1.220	1.299	106	1.302	107	80-120	0	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation:

16-09-0112 N/A

09/02/16

Method: SM 4500-NH3 B/C

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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-814-2429	LCS	Aqu	eous	BUR05	09/07/16	09/0	7/16 18:00	G0907NH3L1	
099-12-814-2429	LCSD	Aqu	eous	BUR05	09/07/16	09/0	7/16 18:00	G0907NH3L1	
Parameter	Spike Added LC	CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000 4.2	284	86	4.368	87	80-120	2	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method:

16-09-0112 N/A

09/02/16

: SM 4500-NO3 E Page 7 of 18

Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD B	atch Number
099-14-282-439	LCS	Aqu	eous	UV 8	09/02/16	09/0	2/16 17:09	FG0902NO3I	-
099-14-282-439	LCSD	Aqu	eous	UV 8	09/02/16	09/0	2/16 17:09	FG0902NO3I	-
Parameter	Spike Added L	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5203	104	0.5218	104	80-120	0	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0112 N/A

09/02/16

Method:

SM 5540C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-05-093-3131	LCS	Aqı	ieous	UV 9	09/02/16	09/0	2/16 17:10	G0902SURL1	
099-05-093-3131	LCSD	Aqı	ieous	UV 9	09/02/16	09/0	2/16 17:10	G0902SURL1	
<u>Parameter</u>	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9632	96	0.9546	95	80-120	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 N/A

EPA 200.7

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument Da	ate Prepared Date	Analyzed LCS Ba	atch Number
097-01-012-6678	LCS	Aqueous	ICP 7300 09	09/09/	/16 13:59 160907	LA4A
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	<b>Qualifiers</b>
Calcium		0.5000	0.4804	96	85-115	
Magnesium		0.5000	0.5046	101	85-115	
Sodium		5.000	5.686	114	85-115	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 3020A Total EPA 6020

09/02/16

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	red Date Analyze	ed LCS Batch No	umber
096-06-003-5315	LCS	Aqueou	s ICP/MS 03	09/07/16	09/08/16 20:	22 160907LA4	
<u>Parameter</u>	<u>S</u>	pike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0	.1000	0.1019	102	80-120	73-127	
Arsenic	0	.1000	0.1017	102	80-120	73-127	
Barium	0	.1000	0.09975	100	80-120	73-127	
Beryllium	0	.1000	0.1048	105	80-120	73-127	
Cadmium	0	.1000	0.1008	101	80-120	73-127	
Chromium	0	.1000	0.1061	106	80-120	73-127	
Cobalt	0	.1000	0.1008	101	80-120	73-127	
Copper	0	.1000	0.1050	105	80-120	73-127	
Lead	0	.1000	0.09917	99	80-120	73-127	
Molybdenum	0	.1000	0.09932	99	80-120	73-127	
Nickel	0	.1000	0.1030	103	80-120	73-127	
Selenium	0	.1000	0.1010	101	80-120	73-127	
Silver	0	.05000	0.05105	102	80-120	73-127	
Thallium	0	.1000	0.09542	95	80-120	73-127	
Vanadium	0	.1000	0.1030	103	80-120	73-127	
Zinc	0	.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 EPA 3005A Filt. EPA 6020

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	x Instrumer	nt Date Pre	pared Date Ana	alyzed LCS Bate	ch Number
099-15-693-1206	LCS	Aque	ous ICP/MS 0	09/07/16	09/08/16	20:22 160907L	.A4F
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Antimony		0.1000	0.1019	102	80-120	73-127	
Arsenic		0.1000	0.1017	102	80-120	73-127	
Barium		0.1000	0.09975	100	80-120	73-127	
Beryllium		0.1000	0.1048	105	80-120	73-127	
Cadmium		0.1000	0.1008	101	80-120	73-127	
Chromium		0.1000	0.1061	106	80-120	73-127	
Cobalt		0.1000	0.1008	101	80-120	73-127	
Copper		0.1000	0.1050	105	80-120	73-127	
Lead		0.1000	0.09917	99	80-120	73-127	
Molybdenum		0.1000	0.09932	99	80-120	73-127	
Nickel		0.1000	0.1030	103	80-120	73-127	
Selenium		0.1000	0.1010	101	80-120	73-127	
Silver		0.05000	0.05105	102	80-120	73-127	
Thallium		0.1000	0.09542	95	80-120	73-127	
Vanadium		0.1000	0.1030	103	80-120	73-127	
Zinc		0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Total

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3
Parameter		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-120	0



#### **Quality Control - LCS**

 Geosyntec Consultants
 Date Received:
 09/02/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0112

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3F
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-120	0



#### **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 EPA 3510C EPA 8270C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		trument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-02-008-62	LCS		Aqueous	G G	MS SS	09/03/16	09/06/	16 10:51	160903L05	
099-02-008-62	LCSD		Aqueous	G G	C/MS SS	09/03/16	09/06/	16 11:13	160903L05	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference.

CL: Control Limits



#### **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

16-09-0112 EPA 3510C EPA 8270C

09/02/16

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> Added	LCS Con	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 0



# **Quality Control - LCS/LCSD**

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 18

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass





#### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0112 EPA 5030C EPA 8260B

09/02/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared Date A	nalyzed LCS Batch Number
099-14-316-2937	LCS	Aqueous	GC/MS RR	09/02/16 09/02/1	6 15:39 160902L035
<u>Parameter</u>	<u>Spi</u>	ke Added Conc	Recovered LCS	%Rec. CL	ME CL Qualifie
Acetone	50.0	00 38.31	77	12-150	0-173
Benzene	50.0	00 48.26	97	80-120	73-127
Bromobenzene	50.0	00 50.04	100	80-120	73-127
Bromochloromethane	50.0	00 51.18	102	80-122	73-129
Bromodichloromethane	50.0	00 51.84	104	80-123	73-130
Bromoform	50.0	00 54.38	109	74-134	64-144
Bromomethane	50.0	00 49.52	99	22-160	0-183
2-Butanone	50.0	00 46.24	92	44-164	24-184
n-Butylbenzene	50.0	00 49.98	100	80-132	71-141
sec-Butylbenzene	50.0	50.96	102	80-129	72-137
tert-Butylbenzene	50.0	00 53.63	107	80-130	72-138
Carbon Disulfide	50.0	00 48.35	97	60-126	49-137
Carbon Tetrachloride	50.0	00 59.19	118	64-148	50-162
Chlorobenzene	50.0	00 49.20	98	80-120	73-127
Chloroethane	50.0	00 47.13	94	63-123	53-133
Chloroform	50.0	50.20	100	79-121	72-128
Chloromethane	50.0	00 50.27	101	43-133	28-148
2-Chlorotoluene	50.0	00 50.02	100	80-130	72-138
1-Chlorotoluene	50.0	00 50.32	101	80-121	73-128
Dibromochloromethane	50.0	00 54.26	109	80-125	72-132
1,2-Dibromo-3-Chloropropane	50.0	50.10	100	68-128	58-138
1,2-Dibromoethane	50.0	50.39	101	80-120	73-127
Dibromomethane	50.0	00 49.45	99	80-121	73-128
1,2-Dichlorobenzene	50.0	00 49.79	100	80-120	73-127
1,3-Dichlorobenzene	50.0	00 49.27	99	80-121	73-128
1,4-Dichlorobenzene	50.0	00 47.70	95	80-120	73-127
Dichlorodifluoromethane	50.0	00 47.38	95	25-187	0-214
1,1-Dichloroethane	50.0	00 49.55	99	75-120	68-128
1,2-Dichloroethane	50.0	00 48.80	98	80-123	73-130
1,1-Dichloroethene	50.0	00 41.96	84	74-122	66-130
c-1,2-Dichloroethene	50.0	00 50.11	100	75-123	67-131
-1,2-Dichloroethene	50.0	00 49.79	100	70-124	61-133
1,2-Dichloropropane	50.0	00 50.21	100	80-120	73-127
1,3-Dichloropropane	50.0	00 49.80	100	80-120	73-127
2,2-Dichloropropane	50.0	00 60.72	121	49-151	32-168
1,1-Dichloropropene	50.0	50.60	101	76-120	69-127
c-1,3-Dichloropropene	50.0			80-124	73-131
t-1,3-Dichloropropene	50.0			68-128	58-138



#### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/02/16 16-09-0112 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

Page 18 of 18

<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.36	101	80-120	73-127	
2-Hexanone	50.00	46.63	93	57-147	42-162	
Isopropylbenzene	50.00	52.18	104	80-127	72-135	
p-Isopropyltoluene	50.00	50.68	101	80-125	72-132	
Methylene Chloride	50.00	47.68	95	74-122	66-130	
4-Methyl-2-Pentanone	50.00	48.48	97	71-125	62-134	
Naphthalene	50.00	48.52	97	54-144	39-159	
n-Propylbenzene	50.00	51.74	103	80-127	72-135	
Styrene	50.00	52.30	105	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	54.79	110	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.52	99	78-126	70-134	
Tetrachloroethene	50.00	35.98	72	57-141	43-155	
Toluene	50.00	50.10	100	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	47.70	95	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	48.42	97	57-153	41-169	
1,1,1-Trichloroethane	50.00	50.59	101	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.10	94	58-148	43-163	
1,1,2-Trichloroethane	50.00	49.06	98	80-120	73-127	
Trichloroethene	50.00	48.83	98	80-120	73-127	
Trichlorofluoromethane	50.00	53.39	107	64-136	52-148	
1,2,3-Trichloropropane	50.00	50.74	101	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	49.75	99	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.79	104	80-126	72-134	
Vinyl Acetate	50.00	17.80	36	34-172	11-195	
Vinyl Chloride	50.00	53.76	108	67-127	57-137	
p/m-Xylene	100.0	100.3	100	80-127	72-135	
o-Xylene	50.00	50.97	102	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	50.43	101	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



#### **Sample Analysis Summary Report**

Work Order: 16-09-0112				Page 1 of 1
<u>Method</u>	<u>Extraction</u>	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 05	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1023	GC/MS RR	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	1068	BUR03	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	1067	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



#### **Glossary of Terms and Qualifiers**

Work Order: 16-09-0112 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.

- X % Recovery and/or RPD out-of-range.Z Analyte presence was not confirmed by second column or GC/MS analysis.
  - Solid Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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**CHAIN OF CUSTODY RECORD** 

0101 (200 Time: イ. CCoパン Kenjo Agustsson SAMPLER(S): (PRINT DATE: 09/01/2016 Р 04-01-16 Date: 1/1/ SB0794 SVOCs (8270) P.O. NO.: **REQUESTED ANALYSES** litrogen, NO3+NO2 (TON) Date: Vitrogen, Ammonia Please check box or fill in blank as needed Vitrogen, Total Kjeldahl (TKN) PAGE: (SQT) abilos bevioasid lato 16-09-0112 Surfactants (MBAS) WO#/LAB USE ONLY PROJECT CONTACT: Kevin Coffman OC2 (8500B) CG Roxane Metals, Total (lab filtered) Cicc to termination) Received by: (Signature/Affiliation) Received by: (Signature/Affiliation Metals, Dissolved (Field Filtered) TOG CODE 93101 **⊞** STANDARD Unpreserved NO OF CONT. ď KCoffman@geosyntec.com 5 MATRIX STATE ☐ 5 DAYS 3 Ç ડ 2130 260 TIME. TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD" 1111 87-10-62 7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 ☐ 72 HR Calscience SAMPLING Cooler(s) with this COC shipped via FedEx 109-01-16 69-01-14 DATE ☐ 48 HR 924 Anacapa St. Suite 4A **Geosyntec Consultants** actb-ogoik MU-02-090116 MW-01-090116 GLOBAL ID: ☐ 24 HR SAMPLE ID Relinquished by: (Signature) Santa Barbara 805-897-3800 SPECIAL INSTRUCTIONS COELT EDF ☐ SAME DAY ADDRESS: LAB ONLY CITY: 핕 C

06/02/14 Revision

ORIGIN ID:IYKA (000) MICHAEL CRONIN GEOSYNTEC CONSULTANTS 924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101 UNITED STATES US

RECEIVING **CALSCIENCE** 

Part # 156297-435 RIT2 EXP 04/17 SHIP DATE: 01SEP16 ACTWGT: 61.40 LB CAD: 006994322/SSFE1704 DIMS: 26x14x14 IN

BILL THIRD PARTY

7440 LINCOLN WAY

# GARDEN GROVE CA 92841 (714) 895 – 5494 1NU: 90:

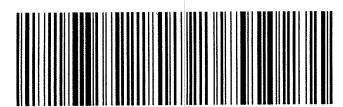
FedEx Express

2 of 2 MPS# 7839 8447 8700 Mstr# 7839 8447 8696

0201

92 AP

FRI - 02 SEP 10:30A PRIORITY OVERNIGHT AHS 92841 CA-US SNA



Calscience

WORK ORDER NUMBER: 16-09-

## SAMPLE RECEIPT CHECKLIST

COOLER		OF	<u>)</u>
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CLIENT: Geosyntec	DATE: 09 /	021	2016
TEMPERATURE: (Criteria: 0.0°C − 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): _5			
CUSTODY SEAL:  Cooler			
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  Sampling date Sampling time Matrix Number of containers	7	No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished  Sampler's name indicated on COC  Sample container label(s) consistent with COC  Sample container(s) intact and in good condition  Proper containers for analyses requested  Sufficient volume/mass for analyses requested			
Samples received within holding time  Aqueous samples for certain analyses received within 15-minute holding time  □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen  Proper preservation chemical(s) noted on COC and/or sample container  Unpreserved aqueous sample(s) received for certain analyses			
□ Volatile Organics □ Total Metals □ Dissolved Metals  Container(s) for certain analysis free of headspace  □ Volatile Organics □ Dissolved Gases (RSK-175) □ Dissolved Oxygen (SM 4500)  □ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation  CONTAINER TYPE:  Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125AGB □ 125AGBh □ 125PBznna □ 250AGB □ 250CGB □ 250CGBs □ 250PB □ 250PBn □ 500AGB □ 500PB □ 1AGB □ 1AGBna₂ □ 1AGBs □ 1PBna	Number:\\@ 1 125AGBp	25PB .GJs	_
Container: <b>A</b> = Amber, <b>B</b> = Bottle, <b>C</b> = Clear, <b>E</b> = Envelope, <b>G</b> = Glass, <b>J</b> = Jar, <b>P</b> = Plastic, and <b>Z</b> = Ziple Preservative: <b>b</b> = buffered, <b>f</b> = filtered, <b>h</b> = HCl, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOH, <b>na</b> <sub>2</sub> = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <b>p</b> = H <sub>3</sub> PO <sub>4</sub> , <b>b</b> = H <sub>2</sub> SO <sub>4</sub> , <b>u</b> = ultra-pure, <b>znna</b> = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + NaOH	loc/Resealable Ba	ag d by: <u>10</u>	17

Calscience

WORK ORDER NUMBER: 16-09- Z3 of 74

### **SAMPLE ANOMALY REPORT**

DATE: 09 / <u>Od</u> / 2016

SAMPLES	, CONTAINE	ERS, AND	LABELS	<b>3</b> :		Commen	ts			
☐ Sample(s	s) NOT RECEI	VED but li	sted on CC	C						
☐ Sample(s	s) received but	NOT LIST	ED on CO	С						
☐ Holding t	ime expired (li	st client or	ECI sampl	e ID and anal	ysis)					
☐ Insufficie	nt sample amo	ount for red	quested an	alysis (list ana	lysis)					
☐ Improper	container(s) ι	ısed (list a	nalysis)							
☐ Improper	preservative	used (list a	nalysis)			6.2.6			. 0.11	
☐ No prese	rvative noted	on COC or	label (list a	analysis and n	otify lab)	<u>(-1) (-</u>	3) Kece	erived 19	6 filter	preserved
☐ Sample of	container(s) no	t labeled								
☐ Client sa	mple label(s) i	llegible (lis	t container	type and anal	lysis)					
☐ Client sa	mple label(s)	do not mat	ch COC (co	omment)						
□ Proje	ct information		*****							
☐ Client	t sample ID									
☐ Samp	oling date and/	or time								
□ Numb	per of containe	er(s)								
□ Requ	ested analysis	;								
☐ Sample of	container(s) co	mpromise	d (commer	nt)						
☐ Broke	en		man plane who are							
□ Wate	r present in sa	mple cont	ainer							
☐ Air samp	le container(s)	) comprom	ised (comn	nent)						
□ Flat										
□ Very	low in volume									
□ Leaki	ing (not transfe	erred; dupl	icate bag s	ubmitted)						
☐ Leaki	ing (transferre	d into ECI	Tedlar™ ba	ags*)						
☐ Leaki	ing (transferre	d into clien	t's Tedlar™	⁴ bags*)						
* Transfer	red at client's requ	est.								
MISCELL	ANEOUS: (D	escribe)		•		Commer	nts			
HEADSPA	ACF:									
	th bubble > 6 mm	or 1/4 inch for	volatile organi	c or dissolved gas	analysis)	(Containers wi	ith bubble for othe	er analysis)		
ECI	ECI	Total	ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**	Requested /	Analysis
Sample ID	Container ID	Number**	Sample ID	Container in	Number	Odinpro 15				
0										
Comments	•							I	Reported by:	1017
** Dec	total number of co	entainers (i.c.	vials or hottle	s) for the affected	sample			- · F	Reported by: _ Reviewed by: _	gr

						8						3	. See					
eurofins											동	Z	CHAIN OF CUSTODY RECORD	STO	D R R	ECO	)RD	
	Calscience				# OM	WO#/LAB USE ONLY				DATE:	0	0	09/01/2016	9				
7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 For contain sension / sample down off information contact 1026, sales?	11-1427 • (714) 895-5494	o Jo woo siisugui	SII BES		Ħ	<b>6-09-0112</b>	9	2	i and	PAGE			2.0	٩ ,	~			
The course service resulting upp on intentional contest used, seresignation sus, with or can us.  LABORATORY CLEMT:	andi, odiest usco sarsaga	o il programa il	6		CLIENT	CLIENT PROJECT NAME / NUMBER	AME / NUM	BER:	07777680	l	١	M.	P.O. NO.:	١		l	Γ	
Geosyntec Consultants	6				ё Т	CG Roxane	(E)						SB0794					
ADDRESS: 924 Anacapa St. Suite 4A	± 4				PROJE	PROJECT CONTACT:						Ť	SAMPLER(S): (PRINT)	): (PRINT)			Γ	
CITY: Santa Barbara	54	STATE:	CA ZIP	<sup>ZIP:</sup> 93101	Kevir	Kevin Coffman							Kenjo Agustsson	Justssor	۲_			
TEL: 805-897-3800	E-MAIL: KCoffman@	KCoffman@geosyntec.com	WO3						REQL	REQUESTED		ANALYSES	ES					
(Rush surcharges ma	poly to any TAT not "STANDARD"						Plea	Please check box or fill in blank as needed	lli-oxox	n-blank	ss neede		-	П				
COELT EDF GLOBAL ID:	□ 48 HR □ 72 HR	□ 5 DAYS	# STAND	NDARD Log code:		21-9												
SPECIAL INSTRUCTIONS:				F		6			(9		(N)	ia .	2					
Cooler(s) with this COC shipped via FedEx	ipped via FedEx	**				) (pareth)	(s		COT) abild		MT) ideble		(NO1) ZC			- 4		
		<del>3</del> )		pe	Dissolved	Total (lab	(ABM) str		S bevloss	Total Total	, Total Kje	InommA ,	, NO3+NO (0728)					
USE SAMPLE ID ONLY	SAMPLING DATE TIME	MATRIX	CONT.	Unpreserv	Field Fi	Metals,		Anions Alkelinity	elO letoT				SAOC9 NILOBEL					
3/10/0-10-mW	\$5.00 M.10-88	2	17		X	X		$\Diamond$	X	$\Diamond$	X	X	$\stackrel{\vee}{>}$		-			
2 actis-opoik	5730 71-10-60		લ	X		X				_						-		
1 My-02-090116			41	X	X	$\nearrow$	$\hat{X}$	$\Diamond$	X	X	$\boxtimes$	X	À		-			- %
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															ľ	06/02/14 Revision	Revision	



# Calscience



# **WORK ORDER NUMBER: 16-09-0242**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Moude

Suite 4A

Santa Barbara, CA 93101-2177

ResultLink >

Email your PM >

Approved for release on 09/14/2016 by:

Stephen Nowak Project Manager

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name:	CG Roxane / SB0794
Work Order Number:	16-09-0242

1	Work Order Narrative	3
2	Sample Summary	4
3	Client Sample Data.  3.1 EPA 300.0 Anions (Aqueous).  3.2 EPA 200.7 ICP Metals (Aqueous).  3.3 EPA 6020/7470A CAC Title 22 Metals, Total (Aqueous).  3.4 EPA 6020/7470A CAC Title 22 Metals, Filtered (Aqueous).  3.5 EPA 7470A Mercury (Aqueous).  3.6 EPA 7470A Mercury (Aqueous).  3.7 EPA 8270C Semi-Volatile Organics (Aqueous).  3.8 EPA 8260B Volatile Organics (Aqueous).  3.9 Combined Inorganic Tests.	5 6 7 9 11 12 13 19 23
4	Quality Control Sample Data. 4.1 MS/MSD. 4.2 PDS/PDSD. 4.3 Sample Duplicate. 4.4 LCS/LCSD.	24 24 34 35 39
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7	Chain-of-Custody/Sample Receipt Form	59



#### **Work Order Narrative**

Work Order: 16-09-0242 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/03/16. They were assigned to Work Order 16-09-0242.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

16-09-0242



#### **Sample Summary**

Client: Geosyntec Consultants Work Order:

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 PO Number:

Date/Time 09/03/16 11:40

Received:

Number of 17

Containers:

Attn: Kevin Coffman

Sample IdentificationLab NumberCollection Date and TimeNumber of ContainersMatrixQCEB-01-09011616-09-0242-109/01/16 15:4017Aqueous



 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-Q	09/01/16 15:40	Aqueous	IC 9	N/A	09/03/16 13:25	160903L01
Parameter		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Chloride		ND	1.0		1.00		
Sulfate		ND	1.0		1.00		

Method Blank	099-12-906-6916	N/A	Aqueous IC 9	N/A	09/03/16 160903L01 12:29	
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qualifiers	
Chloride		ND	1.0	1.00		
Sulfate		ND	1.0	1.00		





Geosyntec ConsultantsDate Received:09/03/16924 Anacapa Street, Suite 4AWork Order:16-09-0242Santa Barbara, CA 93101-2177Preparation:N/A

Method: EPA 200.7 Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-G	09/01/16 15:40	Aqueous	ICP 7300	09/07/16	09/09/16 11:09	160907LA4A
<u>Parameter</u>		Result	RL	:	DF	Qua	lifiers
Calcium		ND	0.1	00	1.00		
Magnesium		ND	0.1	00	1.00		
Sodium		ND	0.5	500	1.00		

Method Blank	097-01-012-6678	N/A	Aqueous	ICP 7300	09/07/16	09/08/16 15:57	160907LA4A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		ND	0.1	00	1.00		
Magnesium		ND	0.1	00	1.00		
Sodium		ND	0.5	00	1.00		





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0242 EPA 3020A Total EPA 6020 mg/L

09/03/16

Project: CG Roxane / SB0794

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-H	09/01/16 15:40	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:35	160907LA4
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0242 EPA 3020A Total EPA 6020 mg/L

09/03/16

Project: CG Roxane / SB0794

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5315	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0242 EPA 3005A Filt. EPA 6020 mg/L

09/03/16

Project: CG Roxane / SB0794

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-G	09/01/16 15:40	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:33	160907LA4F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/03/16 16-09-0242 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1206	N/A	Aqueous	ICP/MS 03	09/07/16	09/08/16 20:20	160907LA4F
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	0100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0242
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Total
Method:
EPA 7470A

Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-H	09/01/16 15:40	Aqueous	Mercury 04	09/07/16	09/08/16 13:11	160907LA3
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Mercury		ND	0.0	000500	1.00		
Made at Diami	000 04 000 7007	NI/A	A	M 05	00/07/40	00/07/40	4000071.40

Method Blank	099-04-008-7967	N/A	Aqueous Mercury 05	09/07/16	09/07/16 160907LA3 17:27
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury		ND	0.000500	1.00	



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0242
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Filt.
Method:
EPA 7470A

Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-G	09/01/16 15:40	Aqueous	Mercury 04	09/07/16	09/08/16 13:13	160907LA3F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	lifiers
Mercury		ND	0.0	00500	1.00		

Method Blank	099-15-763-818	N/A	Aqueous Mercury 05	09/07/16	09/07/16 17:27	160907LA3F
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.000500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0242 EPA 3510C EPA 8270C

09/03/16

ug/L Page 1 of 6

Project: CG	Roxane /	SB0794
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-M	09/01/16 15:40	Aqueous	GC/MS SS	09/03/16	09/08/16 16:00	160903L05
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.6		1.00		
Acenaphthylene		ND	9.6		1.00		
Aniline		ND	9.6		1.00		
Anthracene		ND	9.6		1.00		
Azobenzene		ND	9.6		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzo (k) Fluoranthene		ND	9.6		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol		ND	9.6		1.00		
4-Chloroaniline		ND	9.6		1.00		
2-Chloronaphthalene		ND	9.6		1.00		
2-Chlorophenol		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Chrysene		ND	9.6		1.00		
2,6-Dichlorophenol		ND	9.6		1.00		
Di-n-Butyl Phthalate		ND	9.6		1.00		
Di-n-Octyl Phthalate		ND	9.6		1.00		
Dibenz (a,h) Anthracene		ND	9.6		1.00		
Dibenzofuran		ND	9.6		1.00		
1,2-Dichlorobenzene		ND	9.6		1.00		
1,3-Dichlorobenzene		ND	9.6		1.00		
1,4-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.6		1.00		



 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 6

Project: CG Roxane / SB0794				Page 2 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

9.6

1.00

ND



Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	50-110	
2-Fluorophenol	81	20-110	
Nitrobenzene-d5	75	40-110	
p-Terphenyl-d14	76	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	71	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/03/16 16-09-0242 EPA 3510C EPA 8270C

ug/L

Page 4 of 6

Project: CG Roxane / SB0794

ime QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-62	N/A	Aqueous	GC/MS SS	09/03/16	09/06/16 10:32	160903L05
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 5 of 6

Project: CG Roxane / SB0794				Page 5 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	



Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	



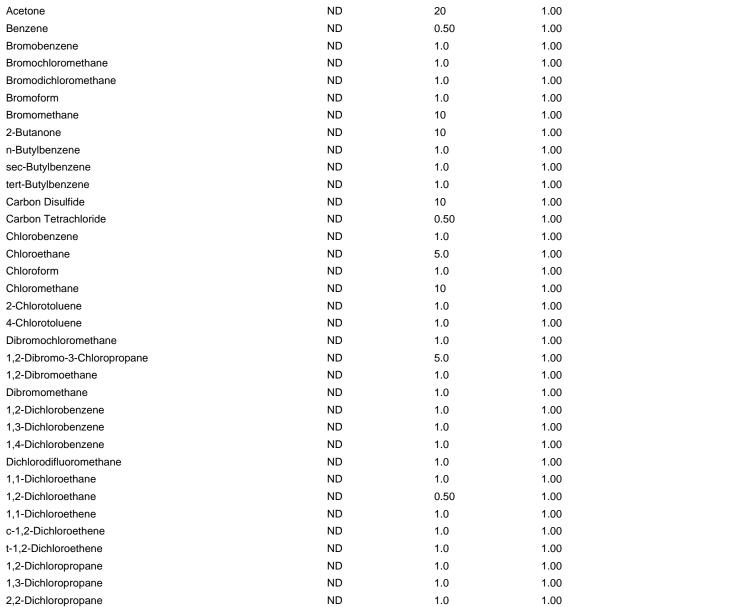
Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0242 EPA 5030C EPA 8260B

09/03/16

Units: ug/L

Project: CG Roxane / SB0794						Pa	ige 1 of 4
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	16-09-0242-1-A	09/01/16 15:40	Aqueous	GC/MS V V	09/07/16	09/08/16 02:39	160907L042
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Dramachlaramathana		ND	4.0	`	1.00		



RL: Reporting Limit. DF: Dilution Factor. MDL:

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 4

Project: CG Roxane / SB0794				Page 2 of 4
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	86	80-120		
Dibromofluoromethane	108	78-126		
1,2-Dichloroethane-d4	109	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/03/16 16-09-0242 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-2944	N/A	Aqueous	GC/MS V V	09/07/16	09/08/16 02:11	160907L042
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	0	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	60	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0		1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0		1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0		1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5		1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



Geosyntec Consultants Date Received: 09/03/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0242 EPA 5030C Santa Barbara, CA 93101-2177 Preparation: Method: EPA 8260B Units: ug/L

Project: CG Roxane / SB0794 Page 4 of 4

Project: CG Roxane / SB0794				Page 4 of 4
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	87	80-120		
Dibromofluoromethane	109	78-126		
1,2-Dichloroethane-d4	110	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order:

09/03/16 16-09-0242

Project: CG Roxane / SB0794

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Client Sample Number			Lab Sample Number			Date/Time Collected		Matrix	
QCEB-01-090116			16-09-0242-1			09/01/16 15:40		Aqueous	
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method	
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C	
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B	
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 5540C	
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc	

Method Blank						N/A		Aqueous
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 5540C





Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Preparation:

Method:

EPA 300.0

09/03/16 16-09-0242

N/A

Project: CG Roxane / SB0794 Page 1 of 10

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0241-2	Sample		Aqueou	s IC 9	)	N/A	09/03/16	14:03	160903S01	
16-09-0241-2	Matrix Spike		Aqueou	s IC 9	)	N/A	09/03/16	15:18	160903S01	
16-09-0241-2	Matrix Spike	Duplicate	Aqueou	s IC 9	)	N/A	09/03/16	15:37	160903S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	57.43	50.00	99.58	84	99.28	84	80-120	0	0-20	
Sulfate	174.0	50.00	221.0	94	220.4	93	80-120	0	0-20	

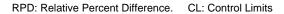


Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0242
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
SM 4500 P B/E

Project: CG Roxane / SB0794 Page 2 of 10

Quality Control Sample ID	Type		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0478-3	Sample		Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
16-09-0478-3	Matrix Spike		Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
16-09-0478-3	Matrix Spike D	Duplicate	Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	





Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received:
Work Order:
Preparation:
Method:

16-09-0242 N/A SM 4500 P B/E

09/03/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0478-3	Sample		Aqueou	s UV	7	09/09/16	09/09/16	21:42	G0909PO4S	1
16-09-0478-3	Matrix Spike		Aqueou	s UV	7	09/09/16	09/09/16	21:42	G0909PO4S	1
16-09-0478-3	Matrix Spike	Duplicate	Aqueou	s UV	7	09/09/16	09/09/16	21:42	G0909PO4S	1
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	





 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500-NO3 E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Type		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0363-1	Sample		Aqueous	s UV	8	09/08/16	09/08/16	19:50	G0908NO3S	64
16-09-0363-1	Matrix Spike		Aqueous	s UV	8	09/08/16	09/08/16	19:50	G0908NO3S	64
16-09-0363-1	Matrix Spike	Duplicate	Aqueous	s UV	8	09/08/16	09/08/16	19:50	G0908NO3S	64
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5462	109	0.5529	111	70-130	1	0-25	



 Geosyntec Consultants
 Date Received:
 09/03/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 5540C

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
QCEB-01-090116	Sample		Aqueous	UV	8	09/03/16	09/03/16	14:54	G0903SURS	<b>31</b>
QCEB-01-090116	Matrix Spike		Aqueous	UV	8	09/03/16	09/03/16	14:54	G0903SURS	<b>31</b>
QCEB-01-090116	Matrix Spike	Duplicate	Aqueous	UV	8	09/03/16	09/03/16	14:54	G0903SURS	<b>31</b>
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9447	94	0.9211	92	70-130	3	0-25	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

09/03/16 16-09-0242 N/A

EPA 200.7

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0040-7	Sample		Aqueou	ıs ICF	P 7300	09/07/16	09/09/16	11:05	160907SA4	
16-09-0040-7	Matrix Spike		Aqueou	ıs ICF	P 7300	09/07/16	09/09/16	11:02	160907SA4	
16-09-0040-7	Matrix Spike	Duplicate	Aqueou	ıs ICF	P 7300	09/07/16	09/09/16	11:03	160907SA4	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0242 EPA 3020A Total EPA 6020

09/03/16

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Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0324-1	Sample		Aqueous	IC	CP/MS 03	09/07/16	09/08/16	20:30	160907SA4	
16-09-0324-1	Matrix Spike		Aqueous	IC	CP/MS 03	09/07/16	09/08/16	20:25	160907SA4	
16-09-0324-1	Matrix Spike I	Duplicate	Aqueous	IC	CP/MS 03	09/07/16	09/08/16	20:27	160907SA4	
Parameter	<u>Sample</u> <u>Conc.</u>	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.1081	108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.1026	101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.4352	107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09387	94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09938	99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.1010	101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09174	92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.2724	81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.1131	112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.1178	115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09450	88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09916	99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05503	110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.1084	108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09900	97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.2383	61	43-145	4	0-39	



 Geosyntec Consultants
 Date Received:
 09/03/16

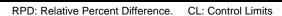
 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0242

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Type		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
16-09-0181-6	Sample		Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:49	160907SA3	
16-09-0181-6	Matrix Spike		Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:36	160907SA3	
16-09-0181-6	Matrix Spike	Duplicate	Aqueous	Mei	rcury 05	09/07/16	09/07/16	17:47	160907SA3	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0242 EPA 5030C

09/03/16

Method:

EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0113-15	Sample		Aqueous	G	C/MS V V	09/07/16	09/08/16	03:07	160907S032	2
16-09-0113-15	Matrix Spike		Aqueous	G	C/MS V V	09/07/16	09/08/16	07:44	160907S032	2
16-09-0113-15	Matrix Spike	Duplicate	Aqueous	G	C/MS V V	09/07/16	09/08/16	08:12	160907S032	2
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	75.61	151	76.60	153	22-178	1	0-26	
Benzene	ND	50.00	48.67	97	49.05	98	70-130	1	0-20	
Bromobenzene	ND	50.00	55.36	111	54.55	109	70-130	1	0-20	
Bromochloromethane	ND	50.00	49.06	98	48.98	98	70-132	0	0-20	
Bromodichloromethane	ND	50.00	51.62	103	52.34	105	69-135	1	0-20	
Bromoform	ND	50.00	48.64	97	50.30	101	70-133	3	0-20	
Bromomethane	ND	50.00	43.91	88	46.73	93	11-167	6	0-32	
2-Butanone	ND	50.00	45.29	91	46.14	92	39-159	2	0-21	
n-Butylbenzene	ND	50.00	55.56	111	56.11	112	62-152	1	0-28	
sec-Butylbenzene	ND	50.00	57.27	115	58.20	116	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	58.89	118	58.25	116	70-140	1	0-20	
Carbon Disulfide	ND	50.00	69.44	139	67.93	136	54-138	2	0-23	3
Carbon Tetrachloride	ND	50.00	58.16	116	58.11	116	63-153	0	0-22	
Chlorobenzene	ND	50.00	53.14	106	52.89	106	70-130	0	0-20	
Chloroethane	ND	50.00	47.90	96	46.97	94	44-140	2	0-32	
Chloroform	ND	50.00	50.08	100	50.29	101	68-134	0	0-20	
Chloromethane	ND	50.00	41.92	84	43.33	87	20-158	3	0-40	
2-Chlorotoluene	ND	50.00	56.50	113	55.99	112	70-137	1	0-20	
4-Chlorotoluene	ND	50.00	55.37	111	54.71	109	70-130	1	0-20	
Dibromochloromethane	ND	50.00	54.82	110	53.94	108	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	47.83	96	50.99	102	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	51.63	103	52.13	104	70-130	1	0-20	
Dibromomethane	ND	50.00	47.92	96	48.69	97	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	53.58	107	54.40	109	70-130	2	0-20	
1,3-Dichlorobenzene	ND	50.00	53.45	107	53.55	107	70-130	0	0-20	
1,4-Dichlorobenzene	ND	50.00	51.64	103	51.63	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	37.06	74	35.48	71	10-190	4	0-40	
1,1-Dichloroethane	ND	50.00	54.00	108	54.26	109	64-130	0	0-20	
1,2-Dichloroethane	ND	50.00	46.85	94	47.91	96	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	60.20	120	58.86	118	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	52.23	104	52.90	106	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	52.36	105	53.49	107	68-134	2	0-20	
1,2-Dichloropropane	ND	50.00	52.57	105	53.00	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	52.02	104	51.28	103	70-130	1	0-20	
2,2-Dichloropropane	ND	50.00	29.28	59	28.70	57	37-169	2	0-23	



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<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
1,1-Dichloropropene	ND	50.00	52.29	105	53.14	106	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	46.18	92	46.91	94	67-139	2	0-20	
t-1,3-Dichloropropene	ND	50.00	48.54	97	48.58	97	58-136	0	0-20	
Ethylbenzene	ND	50.00	55.50	111	54.80	110	70-134	1	0-24	
2-Hexanone	ND	50.00	48.22	96	49.50	99	59-149	3	0-20	
Isopropylbenzene	ND	50.00	59.11	118	58.47	117	70-141	1	0-27	
p-Isopropyltoluene	ND	50.00	58.02	116	57.68	115	65-143	1	0-39	
Methylene Chloride	ND	50.00	50.91	102	51.03	102	69-130	0	0-21	
4-Methyl-2-Pentanone	ND	50.00	47.66	95	50.28	101	67-139	5	0-20	
Naphthalene	ND	50.00	55.33	111	54.39	109	61-139	2	0-20	
n-Propylbenzene	ND	50.00	55.40	111	55.31	111	70-140	0	0-24	
Styrene	ND	50.00	56.32	113	56.06	112	18-174	0	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	55.97	112	54.40	109	70-135	3	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	49.64	99	49.67	99	70-137	0	0-20	
Tetrachloroethene	ND	50.00	49.30	99	49.09	98	33-147	0	0-30	
Toluene	ND	50.00	52.34	105	52.45	105	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	52.95	106	54.13	108	64-142	2	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.78	108	55.05	110	60-144	2	0-24	
1,1,1-Trichloroethane	ND	50.00	51.01	102	51.28	103	68-140	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	55.66	111	54.21	108	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.57	103	50.45	101	70-130	2	0-20	
Trichloroethene	ND	50.00	48.98	98	49.76	100	42-156	2	0-20	
Trichlorofluoromethane	ND	50.00	49.00	98	47.53	95	54-162	3	0-30	
1,2,3-Trichloropropane	ND	50.00	50.48	101	50.60	101	67-130	0	0-20	
1,2,4-Trimethylbenzene	ND	50.00	56.37	113	55.70	111	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	57.83	116	57.60	115	70-139	0	0-20	
Vinyl Acetate	ND	50.00	32.75	66	33.26	67	10-190	2	0-40	
Vinyl Chloride	ND	50.00	51.12	102	50.26	101	59-137	2	0-20	
p/m-Xylene	ND	100.0	116.8	117	116.3	116	67-145	0	0-28	
o-Xylene	ND	50.00	60.07	120	59.45	119	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	51.41	103	51.28	103	69-130	0	0-20	



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Batch
alifiers



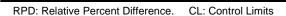
Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/03/16 16-09-0242 N/A

SM 2320B

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
QCEB-01-090116	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
QCEB-01-090116	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		ND	ND	N/A	0-25	





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
QCEB-01-090116	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
QCEB-01-090116	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		ND	ND	N/A	0-25	



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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	Sample	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
16-09-0109-3	Sample Duplicate	Aqueous	N/A	09/07/16 00:00	09/07/16 19:00	G0907TDSD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1670	1685	1	0-20	



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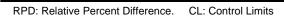
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	Sample	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
16-09-0086-3	Sample Duplicate	Aqueous	BUR05	09/09/16 00:00	09/09/16 16:34	G0909TKND1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen		74.90	73.92	1	0-25	



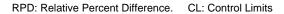


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Quality Control Sample ID	Туре	Matrix	Instrument	Date	Prepared Date A	nalyzed	LCS Batch	Number
099-12-906-6916	LCS	Aqueous	IC 9	N/A	09/03/1	6 12:48	160903L01	
<u>Parameter</u>		Spike Added	Conc. Recov	ered	LCS %Rec.	%Rec	. CL	Qualifiers
Chloride		50.00	47.63		95	90-110	)	
Sulfate		50.00	50.05		100	90-110	)	





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Quality Control Sample ID	Type	Mat	trix	Instrument	Date Pre	epared Date	Analyzed	LCS/LCSD B	atch Number
099-15-981-182	LCS	Aqı	ueous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB	1
099-15-981-182	LCSD	Aqu	ueous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB	1
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-180-5233	LCS	Aqı	ieous	N/A	09/07/16	09/0	7/16 19:00	G0907TDSL1	
099-12-180-5233	LCSD	Aqı	ieous	N/A	09/07/16	09/0	7/16 19:00	G0907TDSL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	95.00	95	80-120	5	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-05-098-2789	LCS	Aqı	ieous	UV 7	09/09/16	09/09	9/16 21:42	G0909TPL1	
099-05-098-2789	LCSD	Aqı	ieous	UV 7	09/09/16	09/09	9/16 21:42	G0909TPL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-14-276-203	LCS	Aqı	ieous	UV 7	09/09/16	09/0	9/16 21:42	G0909PO4L1	
099-14-276-203	LCSD	Aqı	ueous	UV 7	09/09/16	09/0	9/16 21:42	G0909PO4L1	
<u>Parameter</u>	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Total Phosphate	1.220	1.281	105	1.209	99	80-120	6	0-20	



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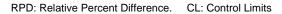
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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-814-2429	LCS	Aqu	ieous	BUR05	09/07/16	09/0	7/16 18:00	G0907NH3L1	
099-12-814-2429	LCSD	Aqu	ieous	BUR05	09/07/16	09/0	7/16 18:00	G0907NH3L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.284	86	4.368	87	80-120	2	0-20	



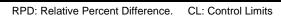


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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-440	LCS	Aqı	ieous	UV 8	09/08/16	09/08	3/16 19:50	G0908NO3L4	
099-14-282-440	LCSD	Aqı	ieous	UV 8	09/08/16	09/08	3/16 19:50	G0908NO3L4	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5135	103	0.5167	103	80-120	1	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Dat	e Analyzed	LCS/LCSD Ba	tch Number
099-05-093-3136	LCS	Aqı	ieous	UV 8	09/03/16	09/0	03/16 14:54	G0903SURL1	
099-05-093-3136	LCSD	Aqı	ieous	UV 8	09/03/16	09/0	03/16 14:54	G0903SURL1	
<u>Parameter</u>	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9425	94	0.9633	96	80-120	2	0-20	



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EPA 200.7

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Type	Matrix	Instrument D	ate Prepared Date	e Analyzed LCS Ba	atch Number
LCS	Aqueous	ICP 7300 0	9/07/16 09/0	9/16 13:59 160907	LA4A
	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	<u>Qualifiers</u>
	0.5000	0.4804	96	85-115	
	0.5000	0.5046	101	85-115	
	5.000	5.686	114	85-115	
		LCS Aqueous	LCS         Aqueous         ICP 7300         0           Spike Added         Conc. Recovered           0.5000         0.4804           0.5000         0.5046	LCS         Aqueous         ICP 7300         09/07/16         09/0           Spike Added         Conc. Recovered         LCS %Rec.           0.5000         0.4804         96           0.5000         0.5046         101	LCS         Aqueous         ICP 7300         09/07/16         09/09/16 13:59 160907           Spike Added         Conc. Recovered         LCS %Rec.         %Rec. CL           0.5000         0.4804         96         85-115           0.5000         0.5046         101         85-115





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Quality Control Sample ID	Туре	Matri	x Instrumen	t Date Pre	pared Date Ana	lyzed LCS Bat	ch Number
096-06-003-5315	LCS	Aque	eous ICP/MS 0	3 09/07/16	09/08/16	20:22 160907L	.A4
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.1019	102	80-120	73-127	
Arsenic		0.1000	0.1017	102	80-120	73-127	
Barium		0.1000	0.09975	100	80-120	73-127	
Beryllium		0.1000	0.1048	105	80-120	73-127	
Cadmium		0.1000	0.1008	101	80-120	73-127	
Chromium		0.1000	0.1061	106	80-120	73-127	
Cobalt		0.1000	0.1008	101	80-120	73-127	
Copper		0.1000	0.1050	105	80-120	73-127	
Lead		0.1000	0.09917	99	80-120	73-127	
Molybdenum		0.1000	0.09932	99	80-120	73-127	
Nickel		0.1000	0.1030	103	80-120	73-127	
Selenium		0.1000	0.1010	101	80-120	73-127	
Silver		0.05000	0.05105	102	80-120	73-127	
Thallium		0.1000	0.09542	95	80-120	73-127	
Vanadium		0.1000	0.1030	103	80-120	73-127	
Zinc		0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





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Quality Control Sample ID	Туре	Matrix	Instrumen	t Date Prep	ared Date Anal	yzed LCS Batc	h Number
099-15-693-1206	LCS	Aque	ous ICP/MS 0	3 09/07/16	09/08/16 2	20:22 160907LA	\4F
<u>Parameter</u>		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.1019	102	80-120	73-127	
Arsenic		0.1000	0.1017	102	80-120	73-127	
Barium		0.1000	0.09975	100	80-120	73-127	
Beryllium		0.1000	0.1048	105	80-120	73-127	
Cadmium		0.1000	0.1008	101	80-120	73-127	
Chromium		0.1000	0.1061	106	80-120	73-127	
Cobalt		0.1000	0.1008	101	80-120	73-127	
Copper		0.1000	0.1050	105	80-120	73-127	
Lead		0.1000	0.09917	99	80-120	73-127	
Molybdenum		0.1000	0.09932	99	80-120	73-127	
Nickel		0.1000	0.1030	103	80-120	73-127	
Selenium		0.1000	0.1010	101	80-120	73-127	
Silver		0.05000	0.05105	102	80-120	73-127	
Thallium		0.1000	0.09542	95	80-120	73-127	
Vanadium		0.1000	0.1030	103	80-120	73-127	
Zinc		0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3
<u>Parameter</u>		Spike Added	Conc. Recover	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-12	0



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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	LCS	Aqueous	Mercury 05	09/07/16	09/07/16 17:32	160907LA3F
Parameter		Spike Added	Conc. Recove	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-12	0



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Quality Control Comple ID	T		Motrix	ام د	rumont	Data Proper	nd Data ^	noluzea <sup>1</sup>	1 CC/I CCD D-	tah Numb -
Quality Control Sample ID  099-02-008-62	Type LCS		Matrix Aqueous		rument /MS SS	Date Prepare 09/03/16		•	160903L05	ich Numbe
099-02-008-62	LCSD	100.0	Aqueous		MS SS	09/03/16			160903L05	Our l'C
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	<u>LCSD</u> %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference. CL:

CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

16-09-0242 EPA 3510C EPA 8270C

09/03/16

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> Added	LCS Cond	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 0





Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 18

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0242 EPA 5030C EPA 8260B

09/03/16

Method:

217(0200

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared [	Date Analyzed	LCS Batch Nur	mber
099-14-316-2944	LCS	Aqueous	GC/MS V V	09/07/16	9/08/16 01:15	160907L042	
<u>Parameter</u>	<u>Spi</u>	ke Added Conc	Recovered LCS	%Rec. %Re	c. CL ME	ECL 9	Qualifiers
Acetone	50.	00 48.26	97	12-1	50 0-1	173	
Benzene	50.	00 44.87	90	80-12	20 73-	-127	
Bromobenzene	50.	00 50.14	100	80-12	20 73-	-127	
Bromochloromethane	50.	00 43.48	87	80-12	22 73	-129	
Bromodichloromethane	50.	00 49.10	98	80-12	23 73	-130	
Bromoform	50.	00 45.62	91	74-13	34 64	-144	
Bromomethane	50.	00 44.70	89	22-16	60 0-1	183	
2-Butanone	50.	00 45.01	90	44-16	64 24	-184	
n-Butylbenzene	50.	00 50.22	100	80-13	32 71	-141	
sec-Butylbenzene	50.	00 51.46	103	80-12	29 72-	-137	
tert-Butylbenzene	50.	00 51.47	103	80-13	30 72-	-138	
Carbon Disulfide	50.	00 45.37	91	60-12	26 49	-137	
Carbon Tetrachloride	50.	00 49.00	98	64-14	48 50-	-162	
Chlorobenzene	50.	00 48.20	96	80-12	20 73	-127	
Chloroethane	50.	00 46.51	93	63-12	23 53	-133	
Chloroform	50.	00 45.06	90	79-12	21 72-	-128	
Chloromethane	50.	00 43.37	87	43-13	33 28	-148	
2-Chlorotoluene	50.	00 50.30	101	80-13	30 72	-138	
4-Chlorotoluene	50.	00 50.37	101	80-12	21 73-	-128	
Dibromochloromethane	50.	00 49.04	98	80-12	25 72-	-132	
1,2-Dibromo-3-Chloropropane	50.	00 48.53	97	68-12	28 58-	-138	
1,2-Dibromoethane	50.	00 48.64	97	80-12	20 73-	-127	
Dibromomethane	50.	00 46.13	92	80-12	21 73-	-128	
1,2-Dichlorobenzene	50.	00 49.60	99	80-12	20 73-	-127	
1,3-Dichlorobenzene	50.	00 49.23	98	80-12	21 73-	-128	
1,4-Dichlorobenzene	50.	00 47.19	94	80-12	20 73-	-127	
Dichlorodifluoromethane	50.	00 36.13	72	25-18	37 0-2	214	
1,1-Dichloroethane	50.	00 46.33	93	75-12	20 68-	-128	
1,2-Dichloroethane	50.	00 45.26	91	80-12	23 73	-130	
1,1-Dichloroethene	50.	00 42.13	84	74-12	22 66	-130	
c-1,2-Dichloroethene	50.	00 46.58	93	75-12	23 67-	-131	
t-1,2-Dichloroethene	50.	00 46.81	94	70-12	24 61-	-133	
1,2-Dichloropropane	50.	00 48.19	96	80-12	20 73	-127	
1,3-Dichloropropane	50.	00 48.11	96	80-12	20 73	-127	
2,2-Dichloropropane	50.			49-1		-168	
1,1-Dichloropropene	50.	00 45.30	91	76-12	20 69	-127	
c-1,3-Dichloropropene	50.			80-12		-131	
t-1,3-Dichloropropene	50.			68-12		-138	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/03/16 16-09-0242 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Ethylbenzene	50.00	49.40	99	80-120	73-127	
2-Hexanone	50.00	45.46	91	57-147	42-162	
Isopropylbenzene	50.00	52.29	105	80-127	72-135	
p-Isopropyltoluene	50.00	52.56	105	80-125	72-132	
Methylene Chloride	50.00	46.78	94	74-122	66-130	
4-Methyl-2-Pentanone	50.00	47.23	94	71-125	62-134	
Naphthalene	50.00	50.54	101	54-144	39-159	
n-Propylbenzene	50.00	50.05	100	80-127	72-135	
Styrene	50.00	51.89	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	49.93	100	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	46.17	92	78-126	70-134	
Tetrachloroethene	50.00	50.82	102	57-141	43-155	
Toluene	50.00	47.62	95	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.08	100	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	50.46	101	57-153	41-169	
1,1,1-Trichloroethane	50.00	45.05	90	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	42.08	84	58-148	43-163	
1,1,2-Trichloroethane	50.00	47.05	94	80-120	73-127	
Trichloroethene	50.00	45.36	91	80-120	73-127	
Trichlorofluoromethane	50.00	46.17	92	64-136	52-148	
1,2,3-Trichloropropane	50.00	48.56	97	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	51.21	102	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	52.46	105	80-126	72-134	
Vinyl Acetate	50.00	33.71	67	34-172	11-195	
Vinyl Chloride	50.00	47.58	95	67-127	57-137	
p/m-Xylene	100.0	104.5	104	80-127	72-135	
o-Xylene	50.00	53.26	107	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	47.96	96	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



## **Sample Analysis Summary Report**

Work Order: 16-09-0242				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 8	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



SG

Χ

## **Glossary of Terms and Qualifiers**

Work Order: 16-09-0242 Page 1 of 1

	_
<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

% Recovery and/or RPD out-of-range. Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

The sample extract was subjected to Silica Gel treatment prior to analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD Kenjo Agustsson SAMPLER(S): (PRINT) P SB0794 SAOCs (8270) REQUESTED ANALYSES Nitrogen, NO3+NO2 (TON) Nitrogen, Ammonia Please check box or fill in blank as needed Vitrogen, Total Kjeldahl (TKN) DATE: PAGE: Phosphate, Total Phosphorus, Total Total Dissolved Solids (TDS) 16-09-0242 snoinA Surfactants (MBAS) WO#/LABUSE ONLY PROJECT CONTACT Kevin Coffman **NOCs (8500B)** CG Roxane Shappo Via Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) Dissolved (Field Fittered) Field Filtered Preserved 93101 E STANDARD NO OF CONT KCoffman@geosyntec.com S 3 MATRIX ☐ 5 DAYS 740 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 For courier service / sample drop off information, contact us26\_sales@eurofinsus. 1540 TIME TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD") ☐ 72 HR Calscience SAMPLING Cooler(s) with this COC shipped via FedEx DATE ☐ 48 HR 2, 924 Anacapa St. Suite 4A **Geosyntec Consultants** SCEBU-CHOIL □ 24 HR SAMPLE ID Relinquished by: (Signature) Relinquished by? (Signature) Santa Barbara 805-897-3800 SPECIAL INSTRUCTIONS: LABORATORY CLIENT: COELT EDF ☐ SAME DAY ADDRESS CITY:

Page 59 of 62



ORIGIN ID:IYKA (805) 897-3800 KENJO AGUSTSSON GEOSYNTEC CONSULTANTS 924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101 UNITED STATES US

ACTWGT: 42.00 LB CAD: 006994322/SSFE1704 DIMS: 25x15x14 IN

BILL THIRD PARTY

STEPHEN NOWAK **EUROFINS CALSCIENCE** 7440 LINCOLN WAY - •

GARDEN GROVE CAR





1 of 2 TRK# 7839 9422 7966 ## MASTER ##

SATURDAY 12:00P PRIORITY OVERNIGHT

92841

ORIGIN ID:IYKA (805) 897-3800 KENJO AGUSTJSON GEOSYNTEC CONSULTANTS 924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101 UNITED STATES US

SHIP DATE: 02SEP16 ACTWGT: 57.00 LB CAD: 006994322/SSFE1704 DIMS: 19x15x12 IN

BILL THIRD PARTY

STEPHEN NOWAK **EUROFINS CALSCIENCE** 7440 LINCOLN WAY

**GARDEN GROVE CA 92841** 



2 of 2 MPS# 7839 9422 7977 Mstr# 7839 9422 7966

SATURDAY 12:00F PRIORITY OVERNIGHT

0201

92841 SNA CA-US



Calscience

#### SAMPLE RECEIPT CHECKLIST

COOLER OF 2

		OAM EL KLOLM	OIIEOIVE:OI	•	OCL	<b>,</b> — ,	·
CLIENT: _	Georgntec			DA	TE: 09	103	/ 201
Thermomet ☐ Samp ☐ Samp ☐ Sample(s	ter ID: SC2A (CF: 0.0°C); ble(s) outside temperature ble(s) outside temperature	3.0°C, not frozen except sedim Temperature (w/o CF): <u>つい</u> e criteria (PM/APM contacted be e criteria but received on ice/ch mperature; placed on ice for tra	y:) illed on same day o			□ Sam	
CUSTODY Cooler Sample(s)	SEAL:  □ Present and Intact □ Present and Intact	☐ Present but Not Intact ☐ Present but Not Intact	Not Present Not Present	□ N/A □ N/A		ed by: $\frac{\delta}{2}$	
SAMPLE C	ONDITION:				Yes	No	N/A
Chain-of-Cเ	ustody (COC) document(s	s) received with samples	\ 	• • • • • • • • • • • • • • • • • • • •			
COC docun	nent(s) received complete	;			Ø		
□ Samp	ling date □ Sampling tir	ne □ Matrix □ Number of c	ontainers				
□ No an	alysis requested   Not	relinquished   No relinquish	ed date  □ No relin	quished time			
Sampler's r	name indicated on COC		: :		Ø		
Sample cor	ntainer label(s) consistent	with COC	: :				
		od condition					
1		ested					
1		requested					
		· •			_		
T .		yses received within 15-minute					
□рН□	☐ Residual Chlorine ☐ ☐	Dissolved Sulfide □ Dissolved	Oxygen	. ,			4
Proper pres	ervation chemical(s) note	ed on COC and/or sample cont	ainer		Æ		
		received for certain analyses					
□ Volatil	le Organics □ Total Met	als   Dissolved Metals					
Container(s	) for certain analysis free	of headspace	: : (* * * * * * * * * * * * * * * * * * *		<u> </u>		
and the same of th		I Gases (RSK-175) ☐ Dissolv					
•		Ferrous Iron (SM 3500) ☐ H					
Tedlar™ ba	g(s) free of condensation						
CONTAINE	R TYPE:		(Trip Blan	k Lot Numbe	er:		)
Aqueous: [	IVOA PVOAH FIVOA	na₂ □ 190PJ □ 100PJna₂ □					/
□ 125PBzn	na □ 250AGB □ 250CG	B 250CGBs 250PB 2	250PBn □ 500AG	B □ 500AG	□ 500	AGJs	
	it .	ÎÂGBs □ ÎPB □ 1PBna □					
Solid: ☐ 4o	zCGJ □ 8ozCGJ □ 16o	zCGJ 🗆 Sleeve () 🗆 E	nCores <sup>®</sup> () □	TerraCores®			
Air: 🗆 Tedla	ar™ □ Canister □ Sorbe	ent Tube	Other Matrix (	): □	1		
		ear, <b>E</b> = Envelope, <b>G</b> = Glass, <b>J</b> =					1

Preservative: b = buffered, f = filtered, h = HCI,  $n = HNO_3$ , na = NaOH,  $na_2 = Na_2S_2O_3$ ,  $p = H_3PO_4$ ,

 $\mathbf{s} = H_2SO_4$ ,  $\mathbf{u} = \text{ultra-pure}$ ,  $\mathbf{znna} = \text{Zn} (CH_3CO_2)_2 + \text{NaOH}$ 

Labeled/Checked by: 7

Reviewed by:

Calscience

WORK ORDER NUMBER: 16-09-

SAMPLE RECEIPT CHECKLIST COOLER \_\_\_\_OF \_\_\_

CLIENT: Geogy Nel	DATE: 09 / <u>6 }</u> / 2016
-------------------	------------------------------

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF):		Sample  Solution
CHSTODY SEAL		
Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A	Checked b	y: 802
		oy: <u>771</u>
SAMPLE CONDITION:	Yes N	lo N/A
Chain-of-Custody (COC) document(s) received with samples		
COC document(s) received complete		
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers		
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time		
Sampler's name indicated on COC		
Sample container label(s) consistent with COC		
Sample container(s) intact and in good condition		
Proper containers for analyses requested		
Sufficient volume/mass for analyses requested	all and	
Samples received within holding time		
Aqueous samples for certain analyses received within 15-minute holding time		
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen		
Proper preservation chemical(s) noted on COC and/or sample container		
Unpreserved aqueous sample(s) received for certain analyses		
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals		
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)		•
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)		
Tedlar™ bag(s) free of condensation		
		<
CONTAINER TYPE: (Trip Blank Lot Number:	_	
Aqueous:       □ VOA       □ VOAh       □ VOAna₂       □ 100PJ       □ 100PJna₂       □ 125AGB       □ 125AGBh       □ 125AGB         □ 125PBznna       □ 250AGB       □ 250CGB       □ 250CGBs       □ 250PB       □ 250PBn       □ 500AGB       □ 500AGB		
□ 125PBZNNA □ 250AGB □ 250CGB □ 250CGBS □ 250PB □ 250PB □ 1500AGB		
Solid:   40zCGJ   80zCGJ   160zCGJ   Sleeve ()   EnCores® ()   TerraCores® ()		
Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □ Other Matrix (): □ _		
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Research		. ,
Container: $A = Amber$ , $B = Bottle$ , $C = Clear$ , $E = Envelope$ , $G = Glass$ , $J = Jar$ , $P = Plastic, and Z = ZipioCriteseaPreservative: b = buffered, f = filtered, h = HCI, n = HNO_3, na = NaOH, na_2 = Na_2S_2O_3, p = H_3PO_4, Labeled/$	Checked h	1v. 776
preservative: $\mathbf{b} = \text{buttered}$ , $\mathbf{r} = \text{littered}$ , $\mathbf{n} = \text{HCI}$ , $\mathbf{n} = \text{HNO}_3$ , $\mathbf{na} = \text{NaOH}$ , $\mathbf{na}_2 = \text{Na}_2 = \text$	Reviewed b	ov: Sar



## Calscience



# **WORK ORDER NUMBER: 16-09-0478**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

**Attention:** Kevin Coffman

924 Anacapa Street

Moude

Suite 4A

Santa Barbara, CA 93101-2177

ResultLink >

Email your PM >

Approved for release on 09/16/2016 by:

Stephen Nowak Project Manager

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number:	16-09-0478

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#### **Work Order Narrative**

Work Order: 16-09-0478 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/08/16. They were assigned to Work Order 16-09-0478.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



#### **Sample Summary**

Client: Geosyntec Consultants

Work Order: Project Name:

16-09-0478

924 Anacapa Street, Suite 4A

PO Number:

CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Date/Time

09/08/16 10:30

Received:

Number of Containers:

104

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-02-090616	16-09-0478-1	09/06/16 00:00	2	Aqueous
OW-8US-090616	16-09-0478-2	09/06/16 14:30	17	Aqueous
OW-8US-090616-DUP	16-09-0478-3	09/06/16 14:30	17	Aqueous
MW-12-090616	16-09-0478-4	09/06/16 16:50	17	Aqueous
MW-07-090716	16-09-0478-5	09/07/16 08:32	17	Aqueous
MW-06-090716	16-09-0478-6	09/07/16 11:02	17	Aqueous
QCEB-02-090616	16-09-0478-7	09/06/16 18:00	17	Aqueous





Client: Geosyntec Consultants

Kevin Coffman

Attn:

Work Order: 16-09-0478

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

09/08/16

Santa Barbara, CA 93101-2177 Received:

Page 1 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	<u>Extraction</u>
OW-8US-090616 (16-09-0478-2)						
Calcium	12.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.37		0.100	mg/L	EPA 200.7	N/A
Sodium	18.0		0.500	mg/L	EPA 200.7	N/A
Chloride	3.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	7.3		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00573		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00209		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00212		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00565		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00212		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00204		0.00100	mg/L	EPA 6020	EPA 3020A Total
Selenium	0.00132		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	82.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	82.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	110		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	2.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.14		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.42		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	1.3		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	2.4		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order:

16-09-0478

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received:

09/08/16

Attn: Kevin Coffman Page 2 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	<b>Extraction</b>
OW-8US-090616-DUP (16-09-0478-3)						
Calcium	12.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.34		0.100	mg/L	EPA 200.7	N/A
Sodium	17.6		0.500	mg/L	EPA 200.7	N/A
Chloride	3.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	7.0		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00588		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00198		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00212		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Selenium	0.00132		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00587		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00212		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00191		0.00100	mg/L	EPA 6020	EPA 3020A Total
Selenium	0.00116		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	69.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	69.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.7		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.14		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.42		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	1.3		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.7		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0478

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/08/16

Attn: Kevin Coffman Page 3 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	Extraction
MW-12-090616 (16-09-0478-4)						
Calcium	2.71		0.100	mg/L	EPA 200.7	N/A
Magnesium	3.06		0.100	mg/L	EPA 200.7	N/A
Sodium	379		0.500	mg/L	EPA 200.7	N/A
Chloride	91		1.0	mg/L	EPA 300.0	N/A
Sulfate	45		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00156		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0956		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00199		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0206		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00237		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00310		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0104		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00144		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0837		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00322		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00209		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0182		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00258		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00385		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0284		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	678		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	590		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1060		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.0		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.68		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	2.1		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.31		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.0		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0478

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/08/16

Attn: Kevin Coffman Page 4 of 5

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-07-090716 (16-09-0478-5)						
Calcium	22.6		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.85		0.100	mg/L	EPA 200.7	N/A
Sodium	86.8		0.500	mg/L	EPA 200.7	N/A
Chloride	56		1.0	mg/L	EPA 300.0	N/A
Sulfate	60		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00143		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0170		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00507		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00177		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0168		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00190		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0101		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00176		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0169		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0329		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00214		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.00114		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00521		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00125		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0157		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00327		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00465		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0225		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	148		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	148		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	320		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.63		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.42		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.3		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.14		0.10	mg/L	SM 4500-NH3 B/C	N/A
MBAS	0.38		0.10	mg/L	SM 5540C	N/A
Total Nitrogen	0.63		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0478

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/08/16

Attn: Kevin Coffman Page 5 of 5

Client SampleID						
Analyte	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	<b>Extraction</b>
MW-06-090716 (16-09-0478-6)						
Calcium	16.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.86		0.100	mg/L	EPA 200.7	N/A
Sodium	272		0.500	mg/L	EPA 200.7	N/A
Chloride	330		5.0	mg/L	EPA 300.0	N/A
Sulfate	37		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0186		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00269		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00977		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00330		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0179		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00312		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00914		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00330		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	178		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	138		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	755		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.36		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.1		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
QCEB-02-090616 (16-09-0478-7)						
Sodium	0.882		0.500	mg/L	EPA 200.7	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown

09/08/16



Geosyntec Consultants

Sulfate

## **Analytical Report**

Date Received:

1.0

1.00

924 Anacapa Street, Suite 4A			Work Orde	r:			16-09-0478
Santa Barbara, CA 93101-2177			Preparation	n:			N/A
			Method:				EPA 300.0
Units:							mg/L
Project: CG Roxane / SB0794						Pa	ge 1 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-Q	09/06/16 14:30	Aqueous	IC 15	N/A	09/08/16 12:19	160908L01
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Chloride		3.7	1.0	`	1.00		

OW-8US-090616-DUP	16-09-0478-3-Q	09/06/16 14:30	Aqueous	IC 15	N/A	09/08/16 12:37	160908L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Chloride		3.7	1.0		1.00		
Sulfate		7.0	1.0		1.00		

7.3

MW-12-090616	16-09-0478-4-Q	09/06/16 16:50	Aqueous	IC 15	N/A	09/08/16 15:17	160908L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Chloride		91	1.0		1.00		
Sulfate		45	1.0		1.00		

MW-07-090716	16-09-0478-5-Q	09/07/16 08:32	Aqueous	IC 15	N/A	09/08/16 15:35	160908L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Chloride		56	1.0		1.00		
Sulfate		60	1.0		1.00		

MW-06-090716	16-09-0478-6-Q	09/07/16 11:02	Aqueous IC	15 N/A	09/08/16 160908L01 15:54
<u>Parameter</u>		Result	<u>RL</u>	DF	<u>Qualifiers</u>
Sulfate		37	1.0	1.00	

MW-06-090716	16-09-0478-6-Q	09/07/16 11:02	Aqueous IC 15	N/A	09/09/16 160908L01 00:18
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Chloride		330	5.0	5.00	

QCEB-02-090616	16-09-0478-7-O	09/06/16 18:00	Aqueous IC 10	N/A	09/10/16 01:06	160909L02
Parameter		Result	<u>RL</u>	<u>DF</u>	Qua	<u>lifiers</u>
Chloride		ND	1.0	1.00		
Sulfate		ND	1.0	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 N/A

EPA 300.0 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-906-6924	N/A	Aqueous	IC 15	N/A	09/08/16 11:24	160908L01
Parameter		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Chloride		ND	1.0		1.00		
Sulfate		ND	1.0		1.00		

Method Blank	099-12-906-6933	N/A	Aqueous IC 10	N/A	09/09/16 160909L02 21:34
<u>Parameter</u>	·	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Chloride		ND	1.0	1.00	
Sulfate		ND	1.0	1.00	





 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 200.7

 Units:
 mg/L

 Project: CG Roxane / SB0794
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<u> </u>							
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-G	09/06/16 14:30	Aqueous	ICP 7300	09/09/16	09/12/16 11:44	160909LA6
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		12.1	0.10	00	1.00		
Magnesium		2.37	0.10	00	1.00		
Sodium		18.0	0.50	00	1.00		
OW-8US-090616-DUP	16-09-0478-3-G	09/06/16 14:30	Aqueous	ICP 7300	09/09/16	09/12/16 11:45	160909LA6
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Calcium		12.1	0.10	00	1.00		
Magnesium		2.34	0.10	00	1.00		
Sodium		17.6	0.500		1.00		
MW-12-090616	16-09-0478-4-G	09/06/16 16:50	Aqueous	ICP 7300	09/09/16	09/12/16 11:46	160909LA6
Parameter		Result	RL		DF	Qua	alifiers

Parameter		Pocult	DI	DE	Out	alifiare
MW-06-090716	16-09-0478-6-G	09/07/16 11:02	Aqueous ICP 7300	09/09/16	09/12/16 11:48	160909LA6
Sodium		86.8	0.500	1.00		
Magnesium		2.85	0.100	1.00		
Calcium		22.6	0.100	1.00		
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
MW-07-090716	16-09-0478-5-G	09/07/16 08:32	Aqueous ICP 7300	09/09/16	09/12/16 11:47	160909LA6
Sodium		379	0.500	1.00		
Magnesium		3.06	0.100	1.00		
Calcium		2.71	0.100	1.00		
				<del></del>		

MW-06-090716	16-09-0478-6-G	09/07/16 11:02	Aqueous ICP 7300	09/09/16	09/12/16 160909LA6 11:48
Parameter		Result	<u>RL</u>	<u>DF</u>	<b>Qualifiers</b>
Calcium		16.1	0.100	1.00	
Magnesium		1.86	0.100	1.00	
Sodium		272	0.500	1.00	

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Project: CG Roxane / SB0794

#### **Analytical Report**

Geosyntec Consultants Date Received: 09/08/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0478 Santa Barbara, CA 93101-2177 Preparation: N/A Method: EPA 200.7

> Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	16-09-0478-7-H	09/06/16 18:00	Aqueous	ICP 7300	09/09/16	09/12/16 11:50	160909LA6
Parameter		Result	RL	:	<u>DF</u>	Qua	lifiers
Calcium		ND	0.1	00	1.00		
Magnesium		ND	0.1	00	1.00		
Sodium		0.882	0.5	500	1.00		

Method Blank	097-01-012-6681	N/A	Aqueous ICP 7300	09/09/16	09/12/16 160909LA6 10:31
Parameter		Result	<u>RL</u>	<u>DF</u>	Qualifiers
Calcium		ND	0.100	1.00	
Magnesium		ND	0.100	1.00	
Sodium		ND	0.500	1.00	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0478 EPA 3020A Total EPA 6020 mg/L

09/08/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-G	09/06/16 14:30	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:25	160909LA2
Parameter	·	Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00565	0.0	00100	1.00		
Barium		0.00212	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00204	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		0.00132	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	16-09-0478-3-G	09/06/16 14:30	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:27	160909LA2
<u>Parameter</u>	·	Result	RL	•	<u>DF</u>	Qua	<u>alifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00587	0.0	00100	1.00		
Barium		0.00212	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00191	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		0.00116	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	16-09-0478-4-G	09/06/16 16:50	Aqueous	ICP/MS 03	09/09/16	09/12/16 13:24	160909LA2
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		0.00144	0.0	00100	1.00		
Arsenic		0.0837	0.0	00100	1.00		
Barium		0.00322	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00209	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0182	0.0	00100	1.00		
Nickel		0.00258	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		0.00385	0.0	00100	1.00		
Zinc		0.0284	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	16-09-0478-5-G	09/07/16 08:32	Aqueous	ICP/MS 03	09/09/16	09/12/16 13:27	160909LA2
Parameter		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		0.00176	0.0	00100	1.00		
Arsenic		0.0169	0.0	00100	1.00		
Barium		0.0329	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00214	0.0	00100	1.00		
Cobalt		0.00114	0.0	00100	1.00		
Copper		0.00521	0.0	00100	1.00		
Lead		0.00125	0.0	00100	1.00		
Molybdenum		0.0157	0.0	00100	1.00		
Nickel		0.00327	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00465	0.0	00100	1.00		
Zinc		0.0225	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	16-09-0478-6-G	09/07/16 11:02	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:30	160909LA2
Parameter		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0179	0.0	00100	1.00		
Barium		0.00312	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00914	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00330	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	16-09-0478-7-G	09/06/16 18:00	Aqueous	ICP/MS 03	09/09/16	09/14/16 13:54	160909LA2
Parameter		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5317	N/A	Aqueous	ICP/MS 03	09/09/16	09/12/16 12:17	160909LA2
Parameter	·	Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-H	09/06/16 14:30	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:17	160909LA2F
Parameter		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00573	0.0	00100	1.00		
Barium		0.00209	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00212	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	16-09-0478-3-H	09/06/16 14:30	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:20	160909LA2F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00588	0.0	00100	1.00		
Barium		0.00198	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00212	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		0.00132	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	16-09-0478-4-H	09/06/16 16:50	Aqueous	ICP/MS 03	09/09/16	09/12/16 13:42	160909LA2F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00156	0.0	00100	1.00		
Arsenic		0.0956	0.0	00100	1.00		
Barium		0.00199	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0206	0.0	00100	1.00		
Nickel		0.00237	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00310	0.0	00100	1.00		
Zinc		0.0104	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	16-09-0478-5-H	09/07/16 08:32	Aqueous	ICP/MS 03	09/09/16	09/12/16 13:45	160909LA2F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00143	0.0	00100	1.00		
Arsenic		0.0170	0.0	00100	1.00		
Barium		0.00507	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00177	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0168	0.0	00100	1.00		
Nickel		0.00190	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		0.0101	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	16-09-0478-6-H	09/07/16 11:02	Aqueous	ICP/MS 03	09/09/16	09/15/16 12:22	160909LA2F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0186	0.0	00100	1.00		
Barium		0.00269	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00977	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00330	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	16-09-0478-7-H	09/06/16 18:00	Aqueous	ICP/MS 03	09/09/16	09/14/16 13:57	160909LA2F
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1208	N/A	Aqueous	ICP/MS 03	09/09/16	09/12/16 12:17	160909LA2F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	0500	1.00		



## **Analytical Report**

Geosyntec Consultants			Date Recei	ved:			09/08/16
924 Anacapa Street, Suite 4A			Work Order	r:			16-09-0478
Santa Barbara, CA 93101-2177			Preparation	n:		EP	A 7470A Total
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	ige 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-G	09/06/16 14:30	Aqueous	Mercury 04	09/12/16	09/12/16 19:18	160912LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
OW-8US-090616-DUP	16-09-0478-3-G	09/06/16 14:30	Aqueous	Mercury 04	09/12/16	09/12/16 19:24	160912LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-12-090616	16-09-0478-4-G	09/06/16 16:50	Aqueous	Mercury 04	09/12/16	09/12/16 19:27	160912LA1
<u>Parameter</u>		Result	RL	:	DF	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-07-090716	16-09-0478-5-G	09/07/16 08:32	Aqueous	Mercury 04	09/12/16	09/12/16 19:29	160912LA1
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MIN 00 000740							
MW-06-090716	16-09-0478-6-G	09/07/16 11:02	Aqueous	Mercury 04	09/12/16	09/12/16 19:31	160912LA1
Parameter Parameter	16-09-0478-6-G		Aqueous RL		09/12/16 DF	19:31	160912LA1
	16-09-0478-6-G	11:02	RL			19:31	
Parameter	16-09-0478-6-G 16-09-0478-7-H	11:02 Result	RL	<u> </u>	<u>DF</u>	19:31	
Parameter Mercury		11:02 <u>Result</u> ND 09/06/16	<u>RL</u> 0.0	000500	<u>DF</u> 1.00	09/12/16 19:33	<u>alifiers</u>
Parameter Mercury  QCEB-02-090616		11:02 <u>Result</u> ND 09/06/16 18:00	RL 0.0 Aqueous	000500	DF 1.00 <b>09/12/16</b>	09/12/16 19:33	160912LA1
Parameter Mercury  QCEB-02-090616  Parameter		11:02  Result  ND  09/06/16 18:00  Result	RL 0.0 Aqueous	000500 Mercury 04	DF 1.00 09/12/16	09/12/16 19:33	160912LA1
Parameter Mercury  QCEB-02-090616  Parameter Mercury	16-09-0478-7-H	11:02  Result  ND  09/06/16 18:00  Result  ND	Aqueous  RL 0.0	Mercury 04 00250 Mercury 04	DF 1.00 <b>09/12/16</b> DF 1.00	09/12/16 19:33 Qua 09/12/16 18:58	alifiers  160912LA1  alifiers



Mercury

## **Analytical Report**

Geosyntec Consultants			Date Recei	ved:			09/08/16
924 Anacapa Street, Suite 4A			Work Orde	r:			16-09-0478
Santa Barbara, CA 93101-2177			Preparation	n:		Е	PA 7470A Filt.
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	age 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-H	09/06/16 14:30	Aqueous	Mercury 04	09/12/16	09/12/16 19:36	160912LA1F
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	00250	1.00		
OW-8US-090616-DUP	16-09-0478-3-H	09/06/16 14:30	Aqueous	Mercury 04	09/12/16	09/12/16 19:38	160912LA1F
<u>Parameter</u>		Result	RL	1	<u>DF</u>	<u>Qua</u>	<u>alifiers</u>
Mercury		ND	0.0	00250	1.00		
MW-12-090616	16-09-0478-4-H	09/06/16 16:50	Aqueous	Mercury 04	09/12/16	09/12/16 19:40	160912LA1F
<u>Parameter</u>		Result	RL		DF	Qua	alifiers
Mercury		ND	0.0	00250	1.00		
MW-07-090716	16-09-0478-5-H	09/07/16 08:32	Aqueous	Mercury 04	09/12/16	09/13/16 13:51	160912LA1F
Parameter		Result	RL	i	DF	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-06-090716	16-09-0478-6-H	09/07/16 11:02	Aqueous	Mercury 04	09/12/16	09/12/16 19:45	160912LA1F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
QCEB-02-090616	16-09-0478-7-G	09/06/16 18:00	Aqueous	Mercury 04	09/12/16	09/12/16 19:51	160912LA1F
<u>Parameter</u>		Result	<u>RL</u>	•	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
Method Blank	099-15-763-822	N/A	Aqueous	Mercury 04	09/12/16	09/12/16 18:58	160912LA1F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>alifiers</u>

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

0.000500

1.00

ND



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3510C EPA 8270C ug/L

Project: CG Roxane / SB0794

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Description	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acenaphthene         ND         9.6         1.00           Acenaphthylene         ND         9.6         1.00           Antiline         ND         9.6         1.00           Antiline         ND         9.6         1.00           Architracene         ND         9.6         1.00           Benzo (a) Antiracene         ND         9.6         1.00           Benzo (a) Pyrene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzo (c) Acid         ND         9.6         1.00           Benzo (c) Acid         ND         9.6         1.00           Benzol Acid         ND         9.6         1.0	OW-8US-090616	16-09-0478-2-N		Aqueous	GC/MS SS	09/09/16	09/12/16 13:51	160909L01
Acenaphthylene         ND         9.6         1.00           Anlline         ND         9.6         1.00           Anlline         ND         9.6         1.00           Azobenzene         ND         9.6         1.00           Benzdille         ND         48         1.00           Benzo (a) Pyrene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (p) Fluoranth	<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Aniline ND 9.6 1.00 Anthracene ND 9.6 1.00 Anthracene ND 9.6 1.00 Benzolarine ND 9.6 1.00 Benzolarine ND 9.6 1.00 Benzolarine ND 9.6 1.00 Benzo (a) Anthracene ND 9.6 1.00 Benzo (a) Pyrene ND 9.6 1.00 Benzo (b) Fluoranthene ND 9.6 1.00 Benzo (b) Fluoranthene ND 9.6 1.00 Benzo (b) Fluoranthene ND 9.6 1.00 Benzolarine ND 9.6 1.00 Bis(2-Chloroethy) Ether ND 9.6 1.00 Bis(2-Ethylbexyl) Phthalate ND 9.6 1.00 Bis(2-Ethylbexyl) Phthalate ND 9.6 1.00 Bis(2-Ethylbexyl) Phthalate ND 9.6 1.00 A-Bromophenyl-Phenyl Ether ND 9.6 1.00 A-Chloroanline ND 9.6 1.00 A-Chloroanline ND 9.6 1.00 A-Chloroanline ND 9.6 1.00 A-Chloroanline ND 9.6 1.00 Chrysene ND 9.6 1.00 Chrysene ND 9.6 1.00 Chrysene ND 9.6 1.00 Din-n-Ctyl Phthalate ND 9.6 1.00 Din-n-Ctyl Phtha	Acenaphthene		ND	9.6		1.00		
Anthracene         ND         9.6         1.00           Azobenzene         ND         9.6         1.00           Benzo (a) Anthracene         ND         48         1.00           Benzo (a) Pyrene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (b, I) Perylene         ND         9.6         1.00           Benzo (k), I) Perylene         ND         9.6         1.00           Benzo (a), Ai, I) Perylene         ND         9.6         1.00           Benzo (a), I) Perylene         ND         9.6         1.00           Benzo (a), I) Perylene         ND         9.6         1.00           Benzo (a), I) Perylene         ND         9.6         1.00           Benzy (A), I) Perylene         ND         9.6         1.00           Benzy (A), I) Perylene         ND         9.6         1.00           Benzy (Alcohol         ND         9.6         1.00           Bis(2-Chlorostoxy) Methane         ND         9.6         1.00           Bis(2-Chlorostoxy) Methane         ND         9.6         1.00           Bis(2-Chlorostoxy) Methane         ND         9.6         1.00 </td <td>Acenaphthylene</td> <td></td> <td>ND</td> <td>9.6</td> <td></td> <td>1.00</td> <td></td> <td></td>	Acenaphthylene		ND	9.6		1.00		
Azobenzene         ND         9.6         1.00           Benzidine         ND         48         1.00           Benzo (a) Anthracene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzo (a) Fluoranthene         ND         9.6         1.00           Benzo (a) Fluoranthene         ND         9.6         1.00           Benzo (d) Fluoranthene         ND         9.6         1.00           Benzo (d) Fluoranthene         ND         9.6         1.00           Bis (2-Chloroshory) Methane         ND         9.6         1.00           Bis (2-Chloroshory) Ether         ND         9.6         1.00           Bis (2-Chloroshory) Phenyl Ether         ND         9.6	Aniline		ND	9.6		1.00		
Benzidine         ND         48         1.00           Benzo (a) Anthracene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (g, h.i) Perylene         ND         9.6         1.00           Benzo (g, fl.i) Perylene         ND         9.6         1.00           Benzo (g, fl.i) Perylene         ND         9.6         1.00           Benzo (s) Fluoranthene         ND         9.6         1.00           Benzol Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chlorotebxy) Methane         ND         9.6         1.00           Bis(2-Chlorotebryl) Ether         ND         9.6         1.00           Bis(2-Chlorotebryl) Ether         ND         9.6         1.00           Bis(2-Ethylheyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloropahryl-Phenyl Ether         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6	Anthracene		ND	9.6		1.00		
Benzo (a) Anthracene         ND         9.6         1.00           Benzo (a) Pyrene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzol Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chlorospropy) Ether         ND         9.6         1.00           Bis(2-Chlorospropy) Ether         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloros-Methylphenol         ND         9.6         1.00           4-Chlorosphthalene         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00<	Azobenzene		ND	9.6		1.00		
Benzo (a) Pyrene         ND         9.6         1.00           Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzolic Acid         ND         48         1.00           Benzol Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethoxy) Ether         ND         9.6         1.00           Bis(2-Chloroethoxy) Pethalate         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloroa-Methylphenol         ND         9.6         1.00           4-Chlorophenol         ND         9.6         1.00           4-Chlorophenol         ND         9.6         1.00           Chrysene         ND         9.6         1.00           Chrysene         ND         9.6         1.00	Benzidine		ND	48		1.00		
Benzo (b) Fluoranthene         ND         9.6         1.00           Benzo (g,h,i) Perylene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzol Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethyl) Ether         ND         9.6         1.00           Bis(2-Chloroethyl) Ether         ND         9.6         1.00           Bis(2-Chloroethyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           4-Chlorophenol         ND         9.6         1.00           4-Chlorophenol         ND         9.6         1.00           4-Chlorophenol         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00 <td>Benzo (a) Anthracene</td> <td></td> <td>ND</td> <td>9.6</td> <td></td> <td>1.00</td> <td></td> <td></td>	Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (g,h,i) Perylene         ND         9.6         1.00           Benzo (k) Fluoranthene         ND         9.6         1.00           Benzoic Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethyl) Ether         ND         24         1.00           Bis(2-Chloroisopropyl) Ether         ND         9.6         1.00           Bis(2-Chloroisopropyl) Ether         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloropanline         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           Chrysene         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00	Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (k) Fluoranthene         ND         9.6         1.00           Benzoic Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bisi(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethyl) Ether         ND         2.4         1.00           Bis(2-Chloroethyl) Pithalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           Chrysene         ND         9.6         1.00           2-6-Dichlorophenol         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.0	Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzoic Acid         ND         48         1.00           Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethoxy) Ether         ND         24         1.00           Bis(2-Chloroisopropyl) Ether         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloroaphthalene         ND         9.6         1.00           2-Chloronaphthalene         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00           2-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           Chrysene         ND         9.6         1.00           2-G-Dichlorophenol         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00 <td>Benzo (g,h,i) Perylene</td> <td></td> <td>ND</td> <td>9.6</td> <td></td> <td>1.00</td> <td></td> <td></td>	Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzyl Alcohol         ND         9.6         1.00           Bis(2-Chloroethoxy) Methane         ND         9.6         1.00           Bis(2-Chloroethyl) Ether         ND         24         1.00           Bis(2-Chloroisopropyl) Ether         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloropaphthalene         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00           2-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           Chrysene         ND         9.6         1.00           2-G-Dichlorophenol         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00           Di-n-Octyl Phthalate         ND         9.6         1.00<	Benzo (k) Fluoranthene		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane       ND       9.6       1.00         Bis(2-Chloroethyl) Ether       ND       24       1.00         Bis(2-Chloroisopropyl) Ether       ND       9.6       1.00         Bis(2-Ethylhexyl) Phthalate       ND       9.6       1.00         4-Bromophenyl-Phenyl Ether       ND       9.6       1.00         Butyl Benzyl Phthalate       ND       9.6       1.00         4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaniline       ND       9.6       1.00         2-Chloroaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Di-n-Ottyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00 <tr< td=""><td>Benzoic Acid</td><td></td><td>ND</td><td>48</td><td></td><td>1.00</td><td></td><td></td></tr<>	Benzoic Acid		ND	48		1.00		
Bis(2-Chloroethyl) Ether       ND       24       1.00         Bis(2-Chloroisopropyl) Ether       ND       9.6       1.00         Bis(2-Ethylhexyl) Phthalate       ND       9.6       1.00         4-Bromophenyl-Phenyl Ether       ND       9.6       1.00         Butyl Benzyl Phthalate       ND       9.6       1.00         4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaniline       ND       9.6       1.00         2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         2-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Cotyl Phthalate       ND       9.6       1.00         Di-n-Cotyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00	Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroisopropyl) Ether         ND         9.6         1.00           Bis(2-Ethylhexyl) Phthalate         ND         9.6         1.00           4-Bromophenyl-Phenyl Ether         ND         9.6         1.00           Butyl Benzyl Phthalate         ND         9.6         1.00           4-Chloro-3-Methylphenol         ND         9.6         1.00           4-Chloroaniline         ND         9.6         1.00           2-Chloroaphthalene         ND         9.6         1.00           2-Chlorophenol         ND         9.6         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.6         1.00           Chrysene         ND         9.6         1.00           2,6-Dichlorophenol         ND         9.6         1.00           Di-n-Butyl Phthalate         ND         9.6         1.00           Di-n-Dctyl Phthalate         ND         9.6         1.00           Di-n-Cytyl Phthalate         ND         9.6         1.00           Dibenz (a,h) Anthracene         ND         9.6         1.00           Dibenzofuran         ND         9.6         1.00           1,2-Dichlorobenzene         ND         9.6         1.00	Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate       ND       9.6       1.00         4-Bromophenyl-Phenyl Ether       ND       9.6       1.00         Butyl Benzyl Phthalate       ND       9.6       1.00         4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaniline       ND       9.6       1.00         2-Chloroaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Cotyl Phthalate       ND       9.6       1.00         Di-n-Cotyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dich	Bis(2-Chloroethyl) Ether		ND	24		1.00		
4-Bromophenyl-Phenyl Ether       ND       9.6       1.00         Butyl Benzyl Phthalate       ND       9.6       1.00         4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaniline       ND       9.6       1.00         2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Dctyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       9.6       1.00	Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate       ND       9.6       1.00         4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaphiline       ND       9.6       1.00         2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzidine       ND       9.6       1.00	Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol       ND       9.6       1.00         4-Chloroaniline       ND       9.6       1.00         2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzidine       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
4-Chloroaniline       ND       9.6       1.00         2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzidine       ND       9.6       1.00	Butyl Benzyl Phthalate		ND	9.6		1.00		
2-Chloronaphthalene       ND       9.6       1.00         2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	4-Chloro-3-Methylphenol		ND	9.6		1.00		
2-Chlorophenol       ND       9.6       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	4-Chloroaniline		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether       ND       9.6       1.00         Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	2-Chloronaphthalene		ND	9.6		1.00		
Chrysene       ND       9.6       1.00         2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	2-Chlorophenol		ND	9.6		1.00		
2,6-Dichlorophenol       ND       9.6       1.00         Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Di-n-Butyl Phthalate       ND       9.6       1.00         Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Chrysene		ND	9.6		1.00		
Di-n-Octyl Phthalate       ND       9.6       1.00         Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	2,6-Dichlorophenol		ND	9.6		1.00		
Dibenz (a,h) Anthracene       ND       9.6       1.00         Dibenzofuran       ND       9.6       1.00         1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Di-n-Butyl Phthalate		ND	9.6		1.00		
Dibenzofuran         ND         9.6         1.00           1,2-Dichlorobenzene         ND         9.6         1.00           1,3-Dichlorobenzene         ND         9.6         1.00           1,4-Dichlorobenzene         ND         9.6         1.00           3,3'-Dichlorobenzidine         ND         24         1.00	Di-n-Octyl Phthalate		ND	9.6		1.00		
1,2-Dichlorobenzene       ND       9.6       1.00         1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Dibenz (a,h) Anthracene		ND	9.6		1.00		
1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00			ND	9.6		1.00		
1,3-Dichlorobenzene       ND       9.6       1.00         1,4-Dichlorobenzene       ND       9.6       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	1,2-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine ND 24 1.00	1,3-Dichlorobenzene		ND	9.6				
3,3'-Dichlorobenzidine ND 24 1.00	1,4-Dichlorobenzene		ND	9.6		1.00		
2,4-Dichlorophenol ND 9.6 1.00	3,3'-Dichlorobenzidine					1.00		
	2,4-Dichlorophenol		ND	9.6		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

Project: CG Roxane / SB0794				Page 2 of 24
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 24

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	82	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	82	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

Page 4 of 24

OW-8US-090616-DUP         16-09-0478-3-N         09/06/16 14:30         Aqueous         GC/MS SS         09/09/16 09/12/16 16(0 14:10)         16(0 14:10)           Parameter         Result 14:30         RL         DF         Qualifiers           Acenaphthene         ND         9.5         1.00           Acenaphthylene         ND         9.5         1.00           Aniline         ND         9.5         1.00           Anthracene         ND         9.5         1.00           Azobenzene         ND         9.5         1.00           Benzidine         ND         48         1.00	0909L01
Acenaphthene       ND       9.5       1.00         Acenaphthylene       ND       9.5       1.00         Aniline       ND       9.5       1.00         Anthracene       ND       9.5       1.00         Azobenzene       ND       9.5       1.00	
Acenaphthylene         ND         9.5         1.00           Aniline         ND         9.5         1.00           Anthracene         ND         9.5         1.00           Azobenzene         ND         9.5         1.00	
Aniline         ND         9.5         1.00           Anthracene         ND         9.5         1.00           Azobenzene         ND         9.5         1.00	
Anthracene         ND         9.5         1.00           Azobenzene         ND         9.5         1.00	
Azobenzene ND 9.5 1.00	
Popzidino ND 49 1.00	
Deliziulle ND 40 1.00	
Benzo (a) Anthracene ND 9.5 1.00	
Benzo (a) Pyrene ND 9.5 1.00	
Benzo (b) Fluoranthene ND 9.5 1.00	
Benzo (g,h,i) Perylene ND 9.5 1.00	
Benzo (k) Fluoranthene ND 9.5 1.00	
Benzoic Acid ND 48 1.00	
Benzyl Alcohol ND 9.5 1.00	
Bis(2-Chloroethoxy) Methane ND 9.5 1.00	
Bis(2-Chloroethyl) Ether ND 24 1.00	
Bis(2-Chloroisopropyl) Ether ND 9.5 1.00	
Bis(2-Ethylhexyl) Phthalate ND 9.5 1.00	
4-Bromophenyl-Phenyl Ether ND 9.5 1.00	
Butyl Benzyl Phthalate ND 9.5 1.00	
4-Chloro-3-Methylphenol ND 9.5 1.00	
4-Chloroaniline ND 9.5 1.00	
2-Chloronaphthalene ND 9.5 1.00	
2-Chlorophenol ND 9.5 1.00	
4-Chlorophenyl-Phenyl Ether ND 9.5 1.00	
Chrysene ND 9.5 1.00	
2,6-Dichlorophenol ND 9.5 1.00	
Di-n-Butyl Phthalate ND 9.5 1.00	
Di-n-Octyl Phthalate ND 9.5 1.00	
Dibenz (a,h) Anthracene ND 9.5 1.00	
Dibenzofuran ND 9.5 1.00	
1,2-Dichlorobenzene ND 9.5 1.00	
1,3-Dichlorobenzene ND 9.5 1.00	
1,4-Dichlorobenzene ND 9.5 1.00	
3,3'-Dichlorobenzidine ND 24 1.00	
2,4-Dichlorophenol ND 9.5 1.00	

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 5 of 24

Project: CG Roxane / SB0794				Page 5 of 24
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 24

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	81	50-110	
2-Fluorophenol	63	20-110	
Nitrobenzene-d5	92	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	37	10-115	
2,4,6-Tribromophenol	86	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 3510C EPA 8270C

ug/L

Units:

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	16-09-0478-4-N	09/06/16 16:50	Aqueous	GC/MS SS	09/09/16	09/12/16 14:30	160909L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	9.6		1.00		
Acenaphthylene		ND	9.6		1.00		
Aniline		ND	9.6		1.00		
Anthracene		ND	9.6		1.00		
Azobenzene		ND	9.6		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzo (k) Fluoranthene		ND	9.6		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol		ND	9.6		1.00		
4-Chloroaniline		ND	9.6		1.00		
2-Chloronaphthalene		ND	9.6		1.00		
2-Chlorophenol		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Chrysene		ND	9.6		1.00		
2,6-Dichlorophenol		ND	9.6		1.00		
Di-n-Butyl Phthalate		ND	9.6		1.00		
Di-n-Octyl Phthalate		ND	9.6		1.00		
Dibenz (a,h) Anthracene		ND	9.6		1.00		
Dibenzofuran		ND	9.6		1.00		
1,2-Dichlorobenzene		ND	9.6		1.00		
1,3-Dichlorobenzene		ND	9.6		1.00		
1,4-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.6		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 8 of 24

Floject. CG Roxalle / 3B0794				rage 8 01 24
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	95	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	84	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	16-09-0478-5-N	09/07/16 08:32	Aqueous	GC/MS SS	09/09/16	09/12/16 14:49	160909L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.7		1.00		
Acenaphthylene		ND	9.7		1.00		
Aniline		ND	9.7		1.00		
Anthracene		ND	9.7		1.00		
Azobenzene		ND	9.7		1.00		
Benzidine		ND	49		1.00		
Benzo (a) Anthracene		ND	9.7		1.00		
Benzo (a) Pyrene		ND	9.7		1.00		
Benzo (b) Fluoranthene		ND	9.7		1.00		
Benzo (g,h,i) Perylene		ND	9.7		1.00		
Benzo (k) Fluoranthene		ND	9.7		1.00		
Benzoic Acid		ND	49		1.00		
Benzyl Alcohol		ND	9.7		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.7		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.7		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.7		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.7		1.00		
Butyl Benzyl Phthalate		ND	9.7		1.00		
4-Chloro-3-Methylphenol		ND	9.7		1.00		
4-Chloroaniline		ND	9.7		1.00		
2-Chloronaphthalene		ND	9.7		1.00		
2-Chlorophenol		ND	9.7		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.7		1.00		
Chrysene		ND	9.7		1.00		
2,6-Dichlorophenol		ND	9.7		1.00		
Di-n-Butyl Phthalate		ND	9.7		1.00		
Di-n-Octyl Phthalate		ND	9.7		1.00		
Dibenz (a,h) Anthracene		ND	9.7		1.00		
Dibenzofuran		ND	9.7		1.00		
1,2-Dichlorobenzene		ND	9.7		1.00		
1,3-Dichlorobenzene		ND	9.7		1.00		
1,4-Dichlorobenzene		ND	9.7		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND					

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 11 of 24

Project: CG Roxane / SB0794				Page 11 of 24
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.7	1.00	
Dimethyl Phthalate	ND	9.7	1.00	
2,4-Dimethylphenol	ND	9.7	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.7	1.00	
2,6-Dinitrotoluene	ND	9.7	1.00	
Fluoranthene	ND	9.7	1.00	
Fluorene	ND	9.7	1.00	
Hexachloro-1,3-Butadiene	ND	9.7	1.00	
Hexachlorobenzene	ND	9.7	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.7	1.00	
Isophorone	ND	9.7	1.00	
2-Methylnaphthalene	ND	9.7	1.00	
1-Methylnaphthalene	ND	9.7	1.00	
2-Methylphenol	ND	9.7	1.00	
3/4-Methylphenol	ND	9.7	1.00	
N-Nitroso-di-n-propylamine	ND	9.7	1.00	
N-Nitrosodimethylamine	ND	9.7	1.00	
N-Nitrosodiphenylamine	ND	9.7	1.00	
Naphthalene	ND	9.7	1.00	
4-Nitroaniline	ND	9.7	1.00	
3-Nitroaniline	ND	9.7	1.00	
2-Nitroaniline	ND	9.7	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.7	1.00	
2-Nitrophenol	ND	9.7	1.00	
Pentachlorophenol	ND	9.7	1.00	
Phenanthrene	ND	9.7	1.00	
Phenol	ND	9.7	1.00	
Pyrene	ND	9.7	1.00	
Pyridine	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	9.7	1.00	
2,4,6-Trichlorophenol	ND	9.7	1.00	
2,4,5-Trichlorophenol	ND	9.7	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 12 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	97	50-135	
Phenol-d6	38	10-115	
2,4,6-Tribromophenol	92	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0478 EPA 3510C EPA 8270C

09/08/16

Units:

ug/L Page 13 of 24

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	16-09-0478-6-N	09/07/16 11:02	Aqueous	GC/MS SS	09/09/16	09/12/16 15:09	160909L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Acenaphthene		ND	9.7		1.00		
Acenaphthylene		ND	9.7		1.00		
Aniline		ND	9.7		1.00		
Anthracene		ND	9.7		1.00		
Azobenzene		ND	9.7		1.00		
Benzidine		ND	49		1.00		
Benzo (a) Anthracene		ND	9.7		1.00		
Benzo (a) Pyrene		ND	9.7		1.00		
Benzo (b) Fluoranthene		ND	9.7		1.00		
Benzo (g,h,i) Perylene		ND	9.7		1.00		
Benzo (k) Fluoranthene		ND	9.7		1.00		
Benzoic Acid		ND	49		1.00		
Benzyl Alcohol		ND	9.7		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.7		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.7		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.7		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.7		1.00		
Butyl Benzyl Phthalate		ND	9.7		1.00		
4-Chloro-3-Methylphenol		ND	9.7		1.00		
4-Chloroaniline		ND	9.7		1.00		
2-Chloronaphthalene		ND	9.7		1.00		
2-Chlorophenol		ND	9.7		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.7		1.00		
Chrysene		ND	9.7		1.00		
2,6-Dichlorophenol		ND	9.7		1.00		
Di-n-Butyl Phthalate		ND	9.7		1.00		
Di-n-Octyl Phthalate		ND	9.7		1.00		
Dibenz (a,h) Anthracene		ND	9.7		1.00		
Dibenzofuran		ND	9.7		1.00		
1,2-Dichlorobenzene		ND	9.7		1.00		
1,3-Dichlorobenzene		ND	9.7		1.00		
1,4-Dichlorobenzene		ND	9.7		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.7		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 14 of 24

Floject. CG Roxalle / 350794				Faye 14 01 24
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.7	1.00	
Dimethyl Phthalate	ND	9.7	1.00	
2,4-Dimethylphenol	ND	9.7	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.7	1.00	
2,6-Dinitrotoluene	ND	9.7	1.00	
Fluoranthene	ND	9.7	1.00	
Fluorene	ND	9.7	1.00	
Hexachloro-1,3-Butadiene	ND	9.7	1.00	
Hexachlorobenzene	ND	9.7	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.7	1.00	
Isophorone	ND	9.7	1.00	
2-Methylnaphthalene	ND	9.7	1.00	
1-Methylnaphthalene	ND	9.7	1.00	
2-Methylphenol	ND	9.7	1.00	
3/4-Methylphenol	ND	9.7	1.00	
N-Nitroso-di-n-propylamine	ND	9.7	1.00	
N-Nitrosodimethylamine	ND	9.7	1.00	
N-Nitrosodiphenylamine	ND	9.7	1.00	
Naphthalene	ND	9.7	1.00	
4-Nitroaniline	ND	9.7	1.00	
3-Nitroaniline	ND	9.7	1.00	
2-Nitroaniline	ND	9.7	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.7	1.00	
2-Nitrophenol	ND	9.7	1.00	
Pentachlorophenol	ND	9.7	1.00	
Phenanthrene	ND	9.7	1.00	
Phenol	ND	9.7	1.00	
Pyrene	ND	9.7	1.00	
Pyridine	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	9.7	1.00	
2,4,6-Trichlorophenol	ND	9.7	1.00	
2,4,5-Trichlorophenol	ND	9.7	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 15 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	50-110	
2-Fluorophenol	65	20-110	
Nitrobenzene-d5	96	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	39	10-115	
2,4,6-Tribromophenol	90	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received:
Work Order:
Preparation:
Method:

16-09-0478 EPA 3510C EPA 8270C

09/08/16

ug/L

Units:

Page 16 of 24

Project: CG Roxane / SB0794

/Time QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	16-09-0478-7-N	09/06/16 18:00	Aqueous	GC/MS CCC	09/12/16	09/13/16 13:02	160912L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.5		1.00		
Acenaphthylene		ND	9.5		1.00		
Aniline		ND	9.5		1.00		
Anthracene		ND	9.5		1.00		
Azobenzene		ND	9.5		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (a) Pyrene		ND	9.5		1.00		
Benzo (b) Fluoranthene		ND	9.5		1.00		
Benzo (g,h,i) Perylene		ND	9.5		1.00		
Benzo (k) Fluoranthene		ND	9.5		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.5		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
Butyl Benzyl Phthalate		ND	9.5		1.00		
4-Chloro-3-Methylphenol		ND	9.5		1.00		
4-Chloroaniline		ND	9.5		1.00		
2-Chloronaphthalene		ND	9.5		1.00		
2-Chlorophenol		ND	9.5		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Chrysene		ND	9.5		1.00		
2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Butyl Phthalate		ND	9.5		1.00		
Di-n-Octyl Phthalate		ND	9.5		1.00		
Dibenz (a,h) Anthracene		ND	9.5		1.00		
Dibenzofuran		ND	9.5		1.00		
1,2-Dichlorobenzene		ND	9.5		1.00		
1,3-Dichlorobenzene		ND	9.5		1.00		
1,4-Dichlorobenzene		ND	9.5		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 17 of 24

				<u> </u>
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 18 of 24

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	84	40-110	
p-Terphenyl-d14	87	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	98	40-125	



09/08/16



# **Analytical Report**

Geosyntec Consultants Date Received: 924 Anacapa Street, Suite 4A Work Order: 16-09-0478 EPA 3510C Santa Barbara, CA 93101-2177 Preparation: Method: **EPA 8270C** 

> Units: ug/L

Project: CG Roxane / SB0794 Page 19 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-64	N/A	Aqueous	GC/MS SS	09/09/16	09/12/16 13:31	160909L01
Parameter		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 20 of 24

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
0.45 T 1.11	ND	4.0	4.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

10

1.00

ND



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 21 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	96	20-110	
Nitrobenzene-d5	88	40-110	
p-Terphenyl-d14	89	50-135	
Phenol-d6	90	10-115	
2,4,6-Tribromophenol	79	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 3510C EPA 8270C

Units:

ug/L Page 22 of 24

Project: CG Roxane / SB0794

Time OC Batch IC

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-63	N/A	Aqueous	GC/MS CCC	09/12/16	09/12/16 12:40	160912L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 23 of 24

1 Tojoot: OO Noxano / ODO / O+				1 ago 20 01 24
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
O A E Triablement and	ND	40	4.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

10

1.00

ND



Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 24 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

Page 1 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-02-090616	16-09-0478-1-B	09/06/16 00:00	Aqueous	GC/MS Z	09/09/16	09/09/16 22:03	160909L040
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 18

Project: CG Roxane / SB0794				Page 2 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	98	80-120		
Dibromofluoromethane	109	78-126		
1,2-Dichloroethane-d4	103	75-135		
Toluene-d8	101	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

ug/L

Units:

Page 3 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	16-09-0478-2-B	09/06/16 14:30	Aqueous	GC/MS Z	09/09/16	09/09/16 19:41	160909L040
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	60	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	60	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	60	1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 4 of 18

Project: CG Roxane / SB0794				Page 4 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	98	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	100	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	16-09-0478-3-B	09/06/16 14:30	Aqueous	GC/MS Z	09/09/16	09/09/16 22:32	160909L040
<u>Parameter</u>	•	Result	RL	:	<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 6 of 18

Project: CG Roxane / SB0794				Page 6 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	98	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	99	75-135		
Toluene-d8	99	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

ug/L

Units:

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Project: CG Roxane / SB0794

Date/Time Lab Sample Date/Time QC Batch ID Client Sample Number Matrix Instrument Date Prepared Number Collected Analyzed 09/09/16 23:00 09/06/16 16:50 MW-12-090616 16-09-0478-4-B Aqueous GC/MS Z 09/09/16 160909L040 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00 1,2-Dichloropropane 1,3-Dichloropropane ND 1.0 1.00 ND 1.00 2,2-Dichloropropane 1.0

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 8 of 18

Project: CG Roxane / SB0794				Page 8 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	98	80-120		
Dibromofluoromethane	105	78-126		
1,2-Dichloroethane-d4	99	75-135		
Toluene-d8	100	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0478 EPA 5030C EPA 8260B

09/08/16

ug/L

Project: CG Roxane / SB0794

Page 9 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	16-09-0478-5-D	09/07/16 08:32	Aqueous	GC/MS Z	09/09/16	09/09/16 23:29	160909L040
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	0	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	60	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0		1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0		1.00		
1,4-Dichlorobenzene		ND	1.0		1.00		
Dichlorodifluoromethane		ND	1.0		1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5		1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 10 of 18

Project: CG Roxane / SB0794				Page 10 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	99	80-120		
Dibromofluoromethane	104	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	100	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

Page 11 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	16-09-0478-6-B	09/07/16 11:02	Aqueous	GC/MS Z	09/09/16	09/09/16 23:57	160909L040
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Geosyntec Consultants

Date Received:

Work Order:

16-09-0478

Santa Barbara, CA 93101-2177

Preparation:

Method:

Units:

09/08/16

09/08/16

09/08/16

16-09-0478

EPA 5030C

EPA 8260B

Unjts:

ug/L

	<b>U</b>		48	
Project: CG Roxane / SB0794				Page 12 of 18
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	97	80-120		
Dibromofluoromethane	105	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	100	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

Units:

ug/L Page 13 of 18

Project: CG Roxane / SB0794

Lab Sample Date/Time Date/Time QC Batch ID Client Sample Number Matrix Instrument Date Prepared Number Collected Analyzed 09/09/16 18:24 09/06/16 18:00 QCEB-02-090616 16-09-0478-7-A Aqueous **GC/MS XX** 09/09/16 160909L031 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 ND 1.0 1.00 Bromochloromethane Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00

RL: Reporting Limit.

t-1,2-Dichloroethene

1,2-Dichloropropane1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.0

1.0

1.0

1.00

1.00

1.00

1.00

ND

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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,				9
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	98	80-120		
Dibromofluoromethane	94	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/08/16 16-09-0478 EPA 5030C EPA 8260B ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-2956	N/A	Aqueous	GC/MS XX	09/09/16	09/09/16 17:00	160909L031
Parameter		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 16 of 18
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	97	80-120		
Dibromofluoromethane	96	78-126		
1,2-Dichloroethane-d4	100	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

Units:

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Project: CG Roxane / SB0794

/T'--- 00 D-1-1-1D

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-2957	N/A	Aqueous	GC/MS Z	09/09/16	09/09/16 16:50	160909L040
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 18 of 18		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
1,1-Dichloropropene	ND	1.0	1.00			
c-1,3-Dichloropropene	ND	0.50	1.00			
t-1,3-Dichloropropene	ND	0.50	1.00			
Ethylbenzene	ND	1.0	1.00			
2-Hexanone	ND	10	1.00			
Isopropylbenzene	ND	1.0	1.00			
p-Isopropyltoluene	ND	1.0	1.00			
Methylene Chloride	ND	10	1.00			
4-Methyl-2-Pentanone	ND	10	1.00			
Naphthalene	ND	10	1.00			
n-Propylbenzene	ND	1.0	1.00			
Styrene	ND	1.0	1.00			
1,1,1,2-Tetrachloroethane	ND	1.0	1.00			
1,1,2,2-Tetrachloroethane	ND	1.0	1.00			
Tetrachloroethene	ND	1.0	1.00			
Toluene	ND	1.0	1.00			
1,2,3-Trichlorobenzene	ND	1.0	1.00			
1,2,4-Trichlorobenzene	ND	1.0	1.00			
1,1,1-Trichloroethane	ND	1.0	1.00			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00			
1,1,2-Trichloroethane	ND	1.0	1.00			
Trichloroethene	ND	1.0	1.00			
Trichlorofluoromethane	ND	10	1.00			
1,2,3-Trichloropropane	ND	5.0	1.00			
1,2,4-Trimethylbenzene	ND	1.0	1.00			
1,3,5-Trimethylbenzene	ND	1.0	1.00			
Vinyl Acetate	ND	10	1.00			
Vinyl Chloride	ND	0.50	1.00			
p/m-Xylene	ND	1.0	1.00			
o-Xylene	ND	1.0	1.00			
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00			
Surrogate	Rec. (%)	Control Limits	Qualifiers			
1,4-Bromofluorobenzene	100	80-120				
Dibromofluoromethane	111	78-126				
1,2-Dichloroethane-d4	102	75-135				
Toluene-d8	99	80-120				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/08/16 16-09-0478

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Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
OW-8US-090616			16-09	9-0478-2		09/06/1	6 14:30	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	82.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	82.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	110	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	2.4	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.14	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
otal Phosphate	0.42	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	1.3	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	2.4	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

OW-8US-090616-DUP			16-09	9-0478-3		09/06/16	6 14:30	Aqueous	
Parameter	Results	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method	
Alkalinity, Total (as CaCO3)	69.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	69.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	105	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C	
Total Kjeldahl Nitrogen	1.7	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B	
Phosphorus, Total	0.14	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	0.42	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	1.3	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C	
Total Nitrogen	1.7	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc	

MW-12-090616			16-09	9-0478-4		09/06/1	6 16:50	Aqueous	
Parameter	Results	<u>RL</u>	DF	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method	
Alkalinity, Total (as CaCO3)	678	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	590	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	1060	10.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C	
Total Kjeldahl Nitrogen	1.0	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B	
Phosphorus, Total	0.68	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	2.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	0.31	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C	
Total Nitrogen	1.0	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/08/16 16-09-0478

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Client Sample Number		•	Lab S	Sample Number		Date/Tir	ne Collected	Matrix
MW-07-090716			16-09	-0478-5		09/07/1	6 08:32	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	148	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	148	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	320	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	0.63	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.42	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.3	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.14	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	0.38	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	0.63	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

MW-06-090716			16-09	9-0478-6		09/07/1	6 11:02	Aqueous	
Parameter	Results	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> Analyzed	Method	
Alkalinity, Total (as CaCO3)	178	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	138	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	755	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C	
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B	
Phosphorus, Total	0.36	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	1.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C	
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc	

QCEB-02-090616			16-09-	0478-7		09/06/16	8 18:00	Aqueous
Parameter	Results	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
Method Blank						N/A		Aqueous
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C



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Preparation:
N/A
Method:
EPA 300.0

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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Analyzed		MS/MSD Ba	tch Number
16-09-0590-3	Sample		Aqueou	s IC	10	N/A	09/10/16	02:03	160909S02	
16-09-0590-3	Matrix Spike		Aqueou	s IC	10	N/A	09/10/16	05:16	160909S02	
16-09-0590-3	Matrix Spike	Duplicate	Aqueou	s IC	10	N/A	09/10/16 05:35		160909S02	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20	
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3





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Preparation:

N/A

Method:

EPA 300.0

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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Analyzed		MS/MSD Batch Numb	
16-09-0433-10	Sample		Aqueou	s IC	15	N/A	09/08/16	22:46	160908S01	
16-09-0433-10	Matrix Spike		Aqueou	s IC	15	N/A	09/08/16	14:27	160908S01	
16-09-0433-10	Matrix Spike	Duplicate	Aqueou	s IC	15	N/A	09/08/16	14:45	160908S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
Chloride	358.5	50.00	513.3	309	512.9	309	80-120	0	0-20	3
Sulfate	437.8	50.00	653.3	431	652.6	430	80-120	0	0-20	3



09/08/16

N/A

16-09-0478

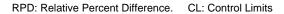


#### **Quality Control - Spike/Spike Duplicate**

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Quality Control Sample ID	Туре		Matrix		strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
OW-8US-090616-DUP	Sample		Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
OW-8US-090616-DUP	Matrix Spike		Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
OW-8US-090616-DUP	Matrix Spike I	Duplicate	Aqueou	s U	V 7	09/09/16	09/09/16	21:42	G0909TPS1	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	



09/08/16

N/A

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SM 4500 P B/E



#### **Quality Control - Spike/Spike Duplicate**

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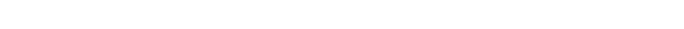
Work Order:

Preparation:

Method:

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Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
OW-8US-090616-DUP	Sample		Aqueou	s U	<b>V</b> 7	09/09/16	09/09/16	21:42	G0909PO4S	51
OW-8US-090616-DUP	Matrix Spike		Aqueou	s U	<b>V</b> 7	09/09/16	09/09/16	21:42	G0909PO4S	51
OW-8US-090616-DUP	Matrix Spike I	Duplicate	Aqueou	s U	<b>V</b> 7	09/09/16	09/09/16	21:42	G0909PO4S	51
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	





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N/A
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SM 4500-NO3 E

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Quality Control Sample ID	Type		Matrix	Instr	ument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0363-1	Sample		Aqueous	UV 8	}	09/08/16	09/08/16	19:50	G0908NO3S	4
16-09-0363-1	Matrix Spike		Aqueous	UV 8	:	09/08/16	09/08/16	19:50	G0908NO3S	4
16-09-0363-1	Matrix Spike D	uplicate	Aqueous	UV 8	1	09/08/16	09/08/16	19:50	G0908NO3S	4
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5462	109	0.5529	111	70-130	1	0-25	





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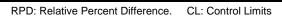
 924 Anacapa Street, Suite 4A
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 Preparation:
 N/A

 Method:
 SM 5540C

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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0498-1	Sample		Aqueous	s UV	7	09/08/16	09/08/16	14:07	G0908SURS	<b>31</b>
16-09-0498-1	Matrix Spike		Aqueous	s UV	7	09/08/16	09/08/16	14:07	G0908SURS	<b>31</b>
16-09-0498-1	Matrix Spike	Duplicate	Aqueous	s UV	7	09/08/16	09/08/16	14:07	G0908SURS	<b>31</b>
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.029	103	1.089	109	70-130	6	0-25	





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Method:

09/08/16 16-09-0478 N/A

EPA 200.7

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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0534-1	Sample		Aqueou	ıs ICF	7300	09/09/16	09/12/16	12:07	160909SA6	
16-09-0534-1	Matrix Spike		Aqueou	ıs ICF	7300	09/09/16	09/12/16	12:11	160909SA6	
16-09-0534-1	Matrix Spike	Duplicate	Aqueou	ıs ICF	7300	09/09/16	09/12/16	12:12	160909SA6	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	44.91	0.5000	45.07	4X	47.23	4X	80-120	4X	0-20	Q
Magnesium	22.17	0.5000	22.16	4X	23.58	4X	80-120	4X	0-20	Q
Sodium	383.0	5.000	386.8	4X	408.4	4X	80-120	4X	0-20	Q



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16-09-0478 EPA 3005A Filt. EPA 6020

09/08/16

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Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0546-4	Sample		Aqueous	s IC	CP/MS 03	09/09/16	09/12/16	13:06	160909SA2	
16-09-0546-4	Matrix Spike		Aqueous	s IC	CP/MS 03	09/09/16	09/12/16	12:22	160909SA2	
16-09-0546-4	Matrix Spike I	Duplicate	Aqueous	s IC	CP/MS 03	09/09/16	09/12/16	12:24	160909SA2	
<u>Parameter</u>	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1019	102	0.1002	100	85-133	2	0-11	
Arsenic	ND	0.1000	0.09418	94	0.09342	93	73-127	1	0-11	
Barium	0.04646	0.1000	0.1571	111	0.1542	108	74-128	2	0-10	
Beryllium	ND	0.1000	0.09278	93	0.09226	92	56-122	1	0-11	
Cadmium	ND	0.1000	0.09443	94	0.09404	94	84-114	0	0-8	
Chromium	0.001408	0.1000	0.09831	97	0.09611	95	73-133	2	0-11	
Cobalt	ND	0.1000	0.1023	102	0.1005	101	79-121	2	0-10	
Copper	0.003523	0.1000	0.09547	92	0.09365	90	72-108	2	0-10	
Lead	ND	0.1000	0.1165	117	0.1156	116	79-121	1	0-10	
Molybdenum	ND	0.1000	0.1263	126	0.1239	124	83-137	2	0-10	
Nickel	0.003425	0.1000	0.1018	98	0.09978	96	68-122	2	0-10	
Selenium	ND	0.1000	0.07109	71	0.06420	64	59-125	10	0-12	
Silver	ND	0.05000	0.04740	95	0.04579	92	68-128	3	0-14	
Thallium	ND	0.1000	0.1117	112	0.1116	112	73-121	0	0-11	
Vanadium	ND	0.1000	0.1106	111	0.1084	108	77-137	2	0-15	
Zinc	0.01348	0.1000	0.08604	73	0.09470	81	43-145	10	0-39	

RPD: Relative Percent Difference. CL: Control Limits



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EPA 7470A

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Quality Control Sample ID	Type		Matrix	Inst	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0546-3	Sample		Aqueous	Mei	rcury 04	09/12/16	09/12/16	19:09	160912SA1	
16-09-0546-3	Matrix Spike		Aqueous	Mei	rcury 04	09/12/16	09/12/16	19:05	160912SA1	
16-09-0546-3	Matrix Spike	Duplicate	Aqueous	Mei	rcury 04	09/12/16	09/12/16	19:07	160912SA1	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.008350	83	0.009228	3 92	55-133	10	0-20	





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EPA 5030C
Method:
EPA 8260B

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	d Date Ana	lyzed	MS/MSD Bat	ch Number
OW-8US-090616	Sample		Aqueous		GC/MS Z	09/09/16	09/09/16	19:41	160909S014	
OW-8US-090616	Matrix Spike		Aqueous GC/MS Z		GC/MS Z	09/09/16	09/09/16 20:0		160909S014	
OW-8US-090616	Matrix Spike	Duplicate	Aqueous	;	GC/MS Z	09/09/16	09/09/16	20:38	160909S014	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Red	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	42.90	86	43.91	88	22-178	2	0-26	
Benzene	ND	50.00	48.26	97	48.05	96	70-130	0	0-20	
Bromobenzene	ND	50.00	53.61	107	51.98	104	70-130	3	0-20	
Bromochloromethane	ND	50.00	50.16	100	50.80	102	70-132	1	0-20	
Bromodichloromethane	ND	50.00	53.82	108	52.82	106	69-135	2	0-20	
Bromoform	ND	50.00	47.08	94	47.19	94	70-133	0	0-20	
Bromomethane	ND	50.00	54.80	110	60.59	121	11-167	10	0-32	
2-Butanone	ND	50.00	43.98	88	44.77	90	39-159	2	0-21	
n-Butylbenzene	ND	50.00	55.81	112	55.77	112	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	54.22	108	54.65	109	70-143	1	0-24	
tert-Butylbenzene	ND	50.00	51.95	104	53.17	106	70-140	2	0-20	
Carbon Disulfide	ND	50.00	41.12	82	42.09	84	54-138	2	0-23	
Carbon Tetrachloride	ND	50.00	53.99	108	53.63	107	63-153	1	0-22	
Chlorobenzene	ND	50.00	50.28	101	49.43	99	70-130	2	0-20	
Chloroethane	ND	50.00	58.40	117	60.36	121	44-140	3	0-32	
Chloroform	ND	50.00	50.26	101	49.67	99	68-134	1	0-20	
Chloromethane	ND	50.00	43.65	87	47.25	95	20-158	8	0-40	
2-Chlorotoluene	ND	50.00	54.32	109	52.72	105	70-137	3	0-20	
4-Chlorotoluene	ND	50.00	51.57	103	51.64	103	70-130	0	0-20	
Dibromochloromethane	ND	50.00	52.53	105	50.93	102	70-133	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	49.40	99	48.88	98	67-133	1	0-20	
1,2-Dibromoethane	ND	50.00	49.65	99	48.93	98	70-130	1	0-20	
Dibromomethane	ND	50.00	51.18	102	51.22	102	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.87	104	51.71	103	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.78	104	51.81	104	70-130	0	0-20	
1,4-Dichlorobenzene	ND	50.00	51.00	102	50.92	102	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	39.75	80	41.25	83	10-190	4	0-40	
1,1-Dichloroethane	ND	50.00	49.26	99	49.60	99	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	51.99	104	51.32	103	69-135	1	0-20	
1,1-Dichloroethene	ND	50.00	45.81	92	46.69	93	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	47.44	95	47.78	96	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	47.34	95	48.55	97	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	50.98	102	51.50	103	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	47.98	96	47.09	94	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	54.52	109	52.88	106	37-169	3	0-23	



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<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
1,1-Dichloropropene	ND	50.00	48.88	98	48.58	97	66-132	1	0-20	
c-1,3-Dichloropropene	ND	50.00	51.54	103	51.62	103	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	52.02	104	51.06	102	58-136	2	0-20	
Ethylbenzene	ND	50.00	51.26	103	50.50	101	70-134	1	0-24	
2-Hexanone	ND	50.00	46.89	94	46.43	93	59-149	1	0-20	
Isopropylbenzene	ND	50.00	55.27	111	53.71	107	70-141	3	0-27	
p-Isopropyltoluene	ND	50.00	53.64	107	53.75	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	46.62	93	46.90	94	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	49.64	99	48.53	97	67-139	2	0-20	
Naphthalene	ND	50.00	49.55	99	50.99	102	61-139	3	0-20	
n-Propylbenzene	ND	50.00	55.59	111	54.14	108	70-140	3	0-24	
Styrene	ND	50.00	52.84	106	51.51	103	18-174	3	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	52.60	105	51.49	103	70-135	2	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	48.26	97	47.74	95	70-137	1	0-20	
Tetrachloroethene	ND	50.00	49.28	99	49.03	98	33-147	1	0-30	
Toluene	ND	50.00	51.27	103	51.31	103	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	53.35	107	54.38	109	64-142	2	0-22	
1,2,4-Trichlorobenzene	ND	50.00	54.62	109	55.14	110	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	51.25	103	50.18	100	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	39.66	79	42.97	86	21-190	8	0-40	
1,1,2-Trichloroethane	ND	50.00	49.51	99	48.73	97	70-130	2	0-20	
Trichloroethene	ND	50.00	51.65	103	50.73	101	42-156	2	0-20	
Trichlorofluoromethane	ND	50.00	55.11	110	54.44	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	47.60	95	45.10	90	67-130	5	0-20	
1,2,4-Trimethylbenzene	ND	50.00	52.94	106	52.71	105	70-133	0	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.71	111	54.13	108	70-139	3	0-20	
Vinyl Acetate	ND	50.00	18.29	37	18.81	38	10-190	3	0-40	
Vinyl Chloride	ND	50.00	52.40	105	58.17	116	59-137	10	0-20	
p/m-Xylene	ND	100.0	105.8	106	103.5	104	67-145	2	0-28	
o-Xylene	ND	50.00	55.35	111	54.01	108	70-142	2	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	48.68	97	49.16	98	69-130	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants Date Received: 09/08/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0478 Santa Barbara, CA 93101-2177 Preparation: **EPA 5030C** Method: EPA 8260B Page 12 of 12 Project: CG Roxane / SB0794

Quality Control Sample ID	Туре		Matrix	lı	nstrument	Date Prepare	d Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0559-4	Sample		Aqueou	s G	GC/MS XX	09/09/16	09/09/16	18:52	160909S016	
16-09-0559-4	Matrix Spike		Aqueou	s G	GC/MS XX	09/09/16	09/09/16	19:20	160909S016	;
16-09-0559-4	Matrix Spike	Duplicate	Aqueou	s G	GC/MS XX	09/09/16	09/09/16	19:48	160909S016	;
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	8.615	50.00	60.08	103	60.89	105	78-120	1	0-20	
Carbon Tetrachloride	ND	50.00	50.91	102	51.08	102	67-139	0	0-20	
Chlorobenzene	ND	50.00	52.99	106	52.49	105	80-120	1	0-20	
1,2-Dibromoethane	ND	50.00	52.49	105	52.60	105	80-123	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.28	103	52.18	104	76-120	2	0-20	
1,2-Dichloroethane	ND	50.00	46.85	94	47.51	95	76-130	1	0-20	
1,1-Dichloroethene	ND	50.00	51.37	103	51.88	104	70-130	1	0-27	
Ethylbenzene	3.224	50.00	57.10	108	56.57	107	73-127	1	0-20	
Toluene	3.712	50.00	56.69	106	56.81	106	72-126	0	0-20	
Trichloroethene	ND	50.00	49.80	100	50.70	101	74-122	2	0-20	
Vinyl Chloride	ND	50.00	47.64	95	48.09	96	65-131	1	0-24	
p/m-Xylene	9.658	100.0	113.8	104	112.1	102	70-130	2	0-30	
o-Xylene	2.848	50.00	55.08	104	53.77	102	70-130	2	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.11	100	51.00	102	69-123	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## **Quality Control - PDS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0478 EPA 3005A Filt. EPA 6020

09/08/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Type	N	/latrix	Instrument	Date Prepared Date	e Analyzed PDS Num	
16-09-0546-4	Sample	-	Aqueous	ICP/MS 03	09/09/16 00:00 09/1	12/16 13:06 1609	909SA2
16-09-0546-4	PDS	A	Aqueous	ICP/MS 03	09/09/16 00:00 09/1	2/16 12:27 1609	909SA2
<u>Parameter</u>		Sample Conc.	Spike Added	d PDS Conc	. PDS %Rec.	%Rec. CL	<u>Qualifiers</u>
Antimony		ND	0.1000	0.09614	96	75-125	
Arsenic		ND	0.1000	0.08743	87	75-125	
Barium		0.04646	0.1000	0.1449	98	75-125	
Beryllium		ND	0.1000	0.08674	87	75-125	
Cadmium		ND	0.1000	0.08868	89	75-125	
Chromium		0.001408	0.1000	0.09085	89	75-125	
Cobalt		ND	0.1000	0.09262	93	75-125	
Copper		0.003523	0.1000	0.08836	85	75-125	
Lead		ND	0.1000	0.1093	109	75-125	
Molybdenum		ND	0.1000	0.1154	115	75-125	
Nickel		0.003425	0.1000	0.09224	89	75-125	
Selenium		ND	0.1000	0.09165	92	75-125	
Silver		ND	0.05000	0.04411	88	75-125	
Thallium		ND	0.1000	0.1051	105	75-125	
Vanadium		ND	0.1000	0.1001	100	75-125	
Zinc		0.01348	0.1000	0.08862	75	75-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0478 N/A

SM 2320B

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Project: CG Roxane / SB0794

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OW-8US-090616	Sample	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910ALKD2
OW-8US-090616	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910ALKD2
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		82.00	74.00	10	0-25	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0478 N/A

09/08/16

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Project: C	G Roxane /	SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OW-8US-090616	Sample	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910HCOD2
OW-8US-090616	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910HCOD2
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		82.00	74.00	10	0-25	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: 09/08/16 16-09-0478 N/A

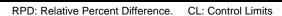
Method:

SM 2320B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		ND	ND	N/A	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 N/A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		ND	ND	N/A	0-25	



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16-09-0478 N/A

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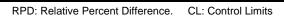
Method:

SM 2540 C

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepare	ed Date Analyzed [	Duplicate Batch Number
16-09-0490-1	Sample	Aqueous	N/A	09/13/16 00:0	00 09/13/16 17:00	G0913TDSD1
16-09-0490-1	Sample Duplicate	Aqueous	N/A	09/13/16 00:0	00 09/13/16 17:00 0	G0913TDSD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		3725	3670	1	0-20	





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SM 4500 N Org B

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0241-2	Sample	Aqueous	BUR05	09/12/16 00:00	09/12/16 12:17	G0912TKND1
16-09-0241-2	Sample Duplicate	Aqueous	BUR05	09/12/16 00:00	09/12/16 12:17	G0912TKND1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen		1.750	1.610	8	0-25	

RPD: Relative Percent Difference. CL: Control Limits



## **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 N/A

EPA 300.0

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Quality Control Sample ID	Type	Matrix	Instrument	Date	Prepared Date	Analyzed	LCS Batch Number
099-12-906-6933	LCS	Aqueous	IC 10	N/A	09/09	/16 21:53	160909L02
<u>Parameter</u>		Spike Added	Conc. Recov	<u>rered</u>	LCS %Rec.	%Rec.	CL Qualifiers
Chloride		50.00	49.96		100	90-110	
Sulfate		50.00	50.82		102	90-110	



## **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0478 N/A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date	Prepared Date	Analyzed	LCS Batch	Number
099-12-906-6924	LCS	Aqueous	IC 15	N/A	09/08/	/16 11:46	160908L01	
<u>Parameter</u>		Spike Added	Conc. Recov	vered	LCS %Rec.	%Rec.	<u>CL</u>	<u>Qualifiers</u>
Chloride		50.00	51.84		104	90-110	)	
Sulfate		50.00	51.87		104	90-110	)	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: 09/08/16 16-09-0478 N/A

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	ared Dat	te Analyzed	LCS/LCSD Ba	atch Number
099-15-859-1057	LCS	Aqı	ieous	PH1/BUR03	N/A	09/	10/16 15:15	G0910ALKB2	2
099-15-859-1057	LCSD	Aqı	ieous	PH1/BUR03	N/A	09/	10/16 15:15	G0910ALKB2	2
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	99.00	99	80-120	1	0-20	





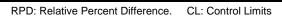
Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 N/A

SM 2320B

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Dat	e Analyzed	LCS/LCSD Ba	tch Number
099-15-981-182	LCS	Aqı	ieous	PH1/BUR16	N/A	09/	10/16 11:15	G0910ALKB1	
099-15-981-182	LCSD	Aqı	ieous	PH1/BUR16	N/A	09/	10/16 11:15	G0910ALKB1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	





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Project: CG Roxane / SB0794

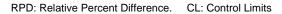
Date Received: Work Order: Preparation: Method:

09/08/16 16-09-0478 N/A

SM 2540 C

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	atch Number
099-12-180-5240	LCS	Aqı	ieous	N/A	09/13/16	09/1	13/16 17:00	G0913TDSL1	
099-12-180-5240	LCSD	Aqı	ieous	N/A	09/13/16	09/1	13/16 17:00	G0913TDSL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	85.00	85	80.00	80	80-120	6	0-20	





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Project: CG Roxane / SB0794

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Method:

SM 4500 P B/E

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Date	e Analyzed	LCS/LCSD Ba	atch Number
099-05-098-2789	LCS	Aqı	ieous	UV 7	09/09/16	09/0	09/16 21:42	G0909TPL1	
099-05-098-2789	LCSD	Aqı	ieous	UV 7	09/09/16	09/0	09/16 21:42	G0909TPL1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 N/A

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-276-203	LCS	Aqı	ieous	UV 7	09/09/16	09/09	9/16 21:42	G0909PO4L1	
099-14-276-203	LCSD	Aqı	ueous	UV 7	09/09/16	09/09	9/16 21:42	G0909PO4L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.281	105	1.209	99	80-120	6	0-20	



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Project: CG Roxane / SB0794

Date Received: Work Order: Preparation:

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Method: SM 4500-NH3 B/C

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	atch Number
099-12-814-2431	LCS	Aqı	ieous	BUR05	09/13/16	09/1	3/16 17:35	G0913NH3L1	
099-12-814-2431	LCSD	Aqı	ueous	BUR05	09/13/16	09/1	3/16 17:35	G0913NH3L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.536	91	4.564	91	80-120	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation:

16-09-0478 N/A

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Method:

SM 4500-NO3 E

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-440	LCS	Aqı	ieous	UV 8	09/08/16	09/08	8/16 19:50	G0908NO3L4	
099-14-282-440	LCSD	Aqı	ieous	UV 8	09/08/16	09/08	8/16 19:50	G0908NO3L4	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5135	103	0.5167	103	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0478 N/A

09/08/16

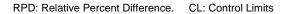
Method:

SM 5540C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	ared Date	Analyzed	LCS/LCSD Ba	atch Number
099-05-093-3138	LCS	Aqı	ieous	UV 7	09/08/16	09/08	3/16 14:07	G0908SURL1	
099-05-093-3138	LCSD	Aqı	ieous	UV 7	09/08/16	09/08	3/16 14:07	G0908SURL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	1.029	103	0.9810	98	80-120	5	0-20	





## **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-09-0478 N/A

09/08/16

Method:

EPA 200.7

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6681	LCS	Aqueous	ICP 7300	09/09/16	09/12/16 10:32	160909LA6
Parameter		Spike Added	Conc. Recovere	ed LCS %R	ec. %Rec.	CL Qualifiers
Calcium		0.5000	0.4518	90	85-115	5
Magnesium		0.5000	0.5121	102	85-115	5
Sodium		5.000	4.982	100	85-115	5





#### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Date Received: Work Order: Preparation: Method:

16-09-0478 EPA 3020A Total EPA 6020

09/08/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	red Date Analyze	ed LCS Batch N	umber
096-06-003-5317	LCS	Aqueou	s ICP/MS 03	09/09/16	09/12/16 12:	19 160909LA2	
<u>Parameter</u>	<u>S</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0	0.1000	0.09873	99	80-120	73-127	
Arsenic	0	0.1000	0.09678	97	80-120	73-127	
Barium	0	0.1000	0.09796	98	80-120	73-127	
Beryllium	0	0.1000	0.09962	100	80-120	73-127	
Cadmium	0	0.1000	0.09863	99	80-120	73-127	
Chromium	0	0.1000	0.1033	103	80-120	73-127	
Cobalt	0	0.1000	0.09722	97	80-120	73-127	
Copper	0	0.1000	0.09667	97	80-120	73-127	
Lead	0	0.1000	0.1013	101	80-120	73-127	
Molybdenum	0	0.1000	0.1049	105	80-120	73-127	
Nickel	0	0.1000	0.09931	99	80-120	73-127	
Selenium	0	0.1000	0.09989	100	80-120	73-127	
Silver	0	0.05000	0.04978	100	80-120	73-127	
Thallium	0	0.1000	0.09711	97	80-120	73-127	
Vanadium	0	0.1000	0.09904	99	80-120	73-127	
Zinc	0	0.1000	0.09950	99	80-120	73-127	

Total number of LCS compounds: 16 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass





# **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 3005A Filt. EPA 6020

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	x Instrumer	nt Date Pre	pared Date Ana	lyzed LCS Bat	ch Number
099-15-693-1208	LCS	Aque	ous ICP/MS 0	3 09/09/16	09/12/16	12:19 160909L	.A2F
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.09873	99	80-120	73-127	
Arsenic		0.1000	0.09678	97	80-120	73-127	
Barium		0.1000	0.09796	98	80-120	73-127	
Beryllium		0.1000	0.09962	100	80-120	73-127	
Cadmium		0.1000	0.09863	99	80-120	73-127	
Chromium		0.1000	0.1033	103	80-120	73-127	
Cobalt		0.1000	0.09722	97	80-120	73-127	
Copper		0.1000	0.09667	97	80-120	73-127	
Lead		0.1000	0.1013	101	80-120	73-127	
Molybdenum		0.1000	0.1049	105	80-120	73-127	
Nickel		0.1000	0.09931	99	80-120	73-127	
Selenium		0.1000	0.09989	100	80-120	73-127	
Silver		0.05000	0.04978	100	80-120	73-127	
Thallium		0.1000	0.09711	97	80-120	73-127	
Vanadium		0.1000	0.09904	99	80-120	73-127	
Zinc		0.1000	0.09950	99	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



# **Quality Control - LCS**

 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Total

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7972	LCS	Aqueous	Mercury 04	09/12/16	09/12/16 19:00	160912LA1
<u>Parameter</u>		Spike Added	Conc. Recover	ed LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01015	101	80-12	0



# **Quality Control - LCS**

 Geosyntec Consultants
 Date Received:
 09/08/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0478

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-822	LCS	Aqueous	Mercury 04	09/12/16	09/12/16 19:00	160912LA1F
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01015	101	80-12	0



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 3510C EPA 8270C

Project: CG Roxane / SB0794

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099-02-008-64 099-02-008-64	LCS									
099-02-008-64			Aqueous	GC	C/MS SS	09/09/16	09/12/16	15:29	160909L01	
	LCSD		Aqueous	GC	C/MS SS	09/09/16	09/12/16	16:01	160909L01	
	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	83.06	83	84.29	84	45-110	34-121	1	0-11	
Acenaphthylene	100.0	80.90	81	83.10	83	50-105	41-114	3	0-20	
Aniline	100.0	97.74	98	106.4	106	50-130	37-143	8	0-20	
Anthracene	100.0	84.21	84	85.09	85	55-110	46-119	1	0-20	
Azobenzene	100.0	85.04	85	87.03	87	50-130	37-143	2	0-20	
Benzidine	100.0	57.48	57	62.64	63	50-130	37-143	9	0-20	
Benzo (a) Anthracene	100.0	83.20	83	83.85	84	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	87.31	87	88.67	89	55-110	46-119	2	0-20	
Benzo (b) Fluoranthene	100.0	86.10	86	86.76	87	45-120	32-132	1	0-20	
Benzo (g,h,i) Perylene	100.0	99.77	100	102.0	102	40-125	26-139	2	0-20	
Benzo (k) Fluoranthene	100.0	86.03	86	87.29	87	45-125	32-138	1	0-20	
Benzoic Acid	100.0	55.01	55	61.22	61	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	67.95	68	71.38	71	30-110	17-123	5	0-20	
Bis(2-Chloroethoxy) Methane	100.0	78.79	79	79.89	80	45-105	35-115	1	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.37	77	80.39	80	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	76.81	77	79.32	79	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	87.39	87	85.97	86	40-125	26-139	2	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.30	83	84.42	84	50-115	39-126	1	0-20	
Butyl Benzyl Phthalate	100.0	88.79	89	88.09	88	45-115	33-127	1	0-20	
4-Chloro-3-Methylphenol	100.0	77.55	78	79.33	79	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	99.85	100	108.3	108	15-110	0-126	8	0-20	
2-Chloronaphthalene	100.0	80.62	81	81.65	82	50-105	41-114	1	0-20	
2-Chlorophenol	100.0	80.97	81	82.43	82	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	78.27	78	78.18	78	50-110	40-120	0	0-20	
Chrysene	100.0	83.66	84	84.69	85	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	80.07	80	81.30	81	42-120	29-133	2	0-21	
Di-n-Butyl Phthalate	100.0	82.83	83	82.98	83	55-115	45-125	0	0-20	
Di-n-Octyl Phthalate	100.0	87.47	87	87.97	88	35-135	18-152	1	0-20	
Dibenz (a,h) Anthracene	100.0	90.30	90	91.17	91	40-125	26-139	1	0-20	
Dibenzofuran	100.0	83.85	84	83.79	84	55-105	47-113	0	0-20	
1,2-Dichlorobenzene	100.0	77.01	77	78.43	78	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	77.01	77	79.87	80	30-100	18-112	4	0-20	
1,4-Dichlorobenzene	100.0	76.80	77	79.15	79	30-100	18-112	3	0-26	
3,3'-Dichlorobenzidine	100.0	128.9	129	135.4	135	20-110	5-125	5	0-20	Χ
2,4-Dichlorophenol	100.0	79.64	80	81.63	82	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	78.29	78	78.01	78	40-120	27-133	0	0-20	

RPD: Relative Percent Difference. C

CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

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09/08/16

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> Added	LCS Con	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
Dimethyl Phthalate	100.0	78.70	79	80.40	80	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	82.22	82	83.64	84	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	73.84	74	73.47	73	40-130	25-145	0	0-20	
2,4-Dinitrophenol	100.0	57.20	57	56.72	57	15-140	0-161	1	0-20	
2,4-Dinitrotoluene	100.0	81.01	81	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	81.59	82	82.16	82	50-115	39-126	1	0-20	
Fluoranthene	100.0	82.36	82	83.21	83	55-115	45-125	1	0-20	
Fluorene	100.0	80.87	81	80.49	80	50-110	40-120	0	0-20	
Hexachloro-1,3-Butadiene	100.0	78.52	79	79.52	80	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	82.33	82	83.96	84	50-110	40-120	2	0-20	
Hexachlorocyclopentadiene	100.0	62.84	63	64.23	64	50-130	37-143	2	0-20	
Hexachloroethane	100.0	77.49	77	80.62	81	30-95	19-106	4	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	92.83	93	94.07	94	45-125	32-138	1	0-20	
Isophorone	100.0	76.78	77	78.64	79	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	83.94	84	83.93	84	45-105	35-115	0	0-20	
1-Methylnaphthalene	100.0	73.88	74	73.69	74	45-105	35-115	0	0-20	
2-Methylphenol	100.0	83.61	84	85.89	86	40-110	28-122	3	0-20	
3/4-Methylphenol	200.0	157.9	79	160.2	80	30-110	17-123	1	0-20	
N-Nitroso-di-n-propylamine	100.0	72.51	73	73.80	74	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	76.98	77	79.98	80	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	98.16	98	99.54	100	50-110	40-120	1	0-20	
Naphthalene	100.0	78.58	79	79.68	80	40-100	30-110	1	0-20	
4-Nitroaniline	100.0	77.50	77	77.65	78	35-120	21-134	0	0-20	
3-Nitroaniline	100.0	72.07	72	76.17	76	20-125	2-142	6	0-20	
2-Nitroaniline	100.0	85.24	85	86.73	87	50-115	39-126	2	0-20	
Nitrobenzene	100.0	81.02	81	83.48	83	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	43.65	44	44.21	44	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	79.14	79	80.38	80	40-115	28-128	2	0-20	
Pentachlorophenol	100.0	42.56	43	41.95	42	40-115	28-128	1	0-40	
Phenanthrene	100.0	86.46	86	87.95	88	50-115	39-126	2	0-20	
Phenol	100.0	79.39	79	82.05	82	10-115	0-132	3	0-23	
Pyrene	100.0	87.05	87	86.74	87	50-130	37-143	0	0-20	
Pyridine	100.0	70.18	70	75.87	76	52-115	42-126	8	0-20	
1,2,4-Trichlorobenzene	100.0	78.38	78	81.18	81	35-105	23-117	4	0-21	
2,4,6-Trichlorophenol	100.0	76.18	76	77.69	78	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	79.82	80	80.50	81	50-110	40-120	1	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 0





Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 18 of 25

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 3510C

EPA 8270C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	ed Date	Analyzed	LCS/LCSD Ba	tch Number
099-02-008-63	LCS		Aqueous	s	GC/MS CCC	09/12/16	09/12	/16 12:59	160912L01	
099-02-008-63	LCSD		Aqueous	s	GC/MS CCC	09/12/16	09/12	/16 13:18	160912L01	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSE Conc.		%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20	
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20	
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20	
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20	
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20	
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20	
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20	
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20	
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20	
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21	
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20	
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20	
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20	
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20	
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26	
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20	
Diethyl Phthalate	100.0	81.95	82	80.70	81	40-120	27-133	2	0-20	

RPD: Relative Percent Difference.

CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

16-09-0478 EPA 3510C EPA 8270C

09/08/16

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Cond	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 1





Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 21 of 25

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-14-316-2957	LCS		Aqueous	G	C/MS Z	09/09/16	09/09/1	16 14:46	160909L040	
099-14-316-2957	LCSD		Aqueous	G	C/MS Z	09/09/16	09/09/1	16 15:14	160909L040	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	45.91	92	49.34	99	12-150	0-173	7	0-20	
Benzene	50.00	47.56	95	46.22	92	80-120	73-127	3	0-20	
Bromobenzene	50.00	50.85	102	48.83	98	80-120	73-127	4	0-20	
Bromochloromethane	50.00	47.86	96	48.28	97	80-122	73-129	1	0-20	
Bromodichloromethane	50.00	53.25	107	50.92	102	80-123	73-130	4	0-20	
Bromoform	50.00	50.80	102	51.14	102	74-134	64-144	1	0-20	
Bromomethane	50.00	49.43	99	54.34	109	22-160	0-183	9	0-20	
2-Butanone	50.00	45.25	90	45.99	92	44-164	24-184	2	0-20	
n-Butylbenzene	50.00	54.00	108	52.08	104	80-132	71-141	4	0-20	
sec-Butylbenzene	50.00	52.30	105	51.52	103	80-129	72-137	2	0-20	
tert-Butylbenzene	50.00	51.13	102	50.46	101	80-130	72-138	1	0-20	
Carbon Disulfide	50.00	41.23	82	40.71	81	60-126	49-137	1	0-20	
Carbon Tetrachloride	50.00	50.55	101	49.03	98	64-148	50-162	3	0-20	
Chlorobenzene	50.00	48.18	96	46.60	93	80-120	73-127	3	0-20	
Chloroethane	50.00	50.57	101	49.37	99	63-123	53-133	2	0-20	
Chloroform	50.00	47.77	96	46.82	94	79-121	72-128	2	0-20	
Chloromethane	50.00	43.15	86	41.24	82	43-133	28-148	5	0-20	
2-Chlorotoluene	50.00	49.61	99	47.75	96	80-130	72-138	4	0-20	
4-Chlorotoluene	50.00	50.74	101	49.67	99	80-121	73-128	2	0-20	
Dibromochloromethane	50.00	51.99	104	50.10	100	80-125	72-132	4	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.82	104	52.24	104	68-128	58-138	1	0-20	
1,2-Dibromoethane	50.00	48.54	97	47.29	95	80-120	73-127	3	0-20	
Dibromomethane	50.00	49.94	100	49.17	98	80-121	73-128	2	0-20	
1,2-Dichlorobenzene	50.00	51.58	103	50.44	101	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	50.50	101	50.66	101	80-121	73-128	0	0-20	
1,4-Dichlorobenzene	50.00	49.88	100	48.22	96	80-120	73-127	3	0-20	
Dichlorodifluoromethane	50.00	37.54	75	34.78	70	25-187	0-214	8	0-20	
1,1-Dichloroethane	50.00	47.87	96	47.21	94	75-120	68-128	1	0-20	
1,2-Dichloroethane	50.00	50.92	102	49.22	98	80-123	73-130	3	0-20	
1,1-Dichloroethene	50.00	49.94	100	45.58	91	74-122	66-130	9	0-20	
c-1,2-Dichloroethene	50.00	46.72	93	45.81	92	75-123	67-131	2	0-20	
t-1,2-Dichloroethene	50.00	46.55	93	46.66	93	70-124	61-133	0	0-20	
1,2-Dichloropropane	50.00	51.38	103	49.77	100	80-120	73-127	3	0-20	
1,3-Dichloropropane	50.00	47.54	95	46.28	93	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	54.25	108	51.57	103	49-151	32-168	5	0-20	
1,1-Dichloropropene	50.00	47.30	95	46.47	93	76-120	69-127	2	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

09/08/16 16-09-0478 EPA 5030C EPA 8260B

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<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Cond	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	51.79	104	50.30	101	80-124	73-131	3	0-20	
t-1,3-Dichloropropene	50.00	51.73	103	50.91	102	68-128	58-138	2	0-20	
Ethylbenzene	50.00	49.10	98	47.22	94	80-120	73-127	4	0-20	
2-Hexanone	50.00	46.91	94	49.77	100	57-147	42-162	6	0-20	
Isopropylbenzene	50.00	51.00	102	48.98	98	80-127	72-135	4	0-20	
p-Isopropyltoluene	50.00	50.90	102	50.09	100	80-125	72-132	2	0-20	
Methylene Chloride	50.00	45.70	91	45.56	91	74-122	66-130	0	0-20	
4-Methyl-2-Pentanone	50.00	50.41	101	51.93	104	71-125	62-134	3	0-20	
Naphthalene	50.00	51.56	103	52.46	105	54-144	39-159	2	0-20	
n-Propylbenzene	50.00	50.30	101	48.01	96	80-127	72-135	5	0-20	
Styrene	50.00	49.87	100	47.98	96	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.83	102	48.92	98	80-125	72-132	4	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.36	97	49.97	100	78-126	70-134	3	0-20	
Tetrachloroethene	50.00	51.10	102	47.89	96	57-141	43-155	6	0-20	
Toluene	50.00	49.68	99	47.87	96	80-120	73-127	4	0-20	
1,2,3-Trichlorobenzene	50.00	53.33	107	53.80	108	58-154	42-170	1	0-20	
1,2,4-Trichlorobenzene	50.00	55.27	111	55.73	111	57-153	41-169	1	0-20	
1,1,1-Trichloroethane	50.00	48.76	98	47.11	94	76-124	68-132	3	0-20	
1,1,2-Trichloro-1,2,2- Trifluoroethane	50.00	46.47	93	41.85	84	58-148	43-163	10	0-20	
1,1,2-Trichloroethane	50.00	49.12	98	47.81	96	80-120	73-127	3	0-20	
Trichloroethene	50.00	51.38	103	48.41	97	80-120	73-127	6	0-20	
Trichlorofluoromethane	50.00	48.73	97	46.00	92	64-136	52-148	6	0-20	
1,2,3-Trichloropropane	50.00	49.32	99	48.89	98	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	50.99	102	50.37	101	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	49.81	100	47.70	95	80-126	72-134	4	0-20	
Vinyl Acetate	50.00	17.85	36	18.73	37	34-172	11-195	5	0-20	
Vinyl Chloride	50.00	51.46	103	48.93	98	67-127	57-137	5	0-20	
p/m-Xylene	100.0	98.62	99	94.50	95	80-127	72-135	4	0-20	
o-Xylene	50.00	52.02	104	49.59	99	80-127	72-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	49.99	100	51.02	102	71-120	63-128	2	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	d Date	Analyzed	LCS/LCSD Ba	tch Number
099-14-316-2956	LCS		Aqueous	;	GC/MS XX	09/09/16	09/09	/16 15:08	160909L031	
099-14-316-2956	LCSD		Aqueous	}	GC/MS XX	09/09/16	09/09	/16 15:36	160909L031	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSE Conc		%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	58.97	118	56.62	113	12-150	0-173	4	0-20	
Benzene	50.00	47.77	96	48.93	98	80-120	73-127	2	0-20	
Bromobenzene	50.00	51.05	102	52.03	104	80-120	73-127	2	0-20	
Bromochloromethane	50.00	51.04	102	51.73	103	80-122	73-129	1	0-20	
Bromodichloromethane	50.00	48.95	98	50.12	100	80-123	73-130	2	0-20	
Bromoform	50.00	50.65	101	49.50	99	74-134	64-144	2	0-20	
Bromomethane	50.00	45.80	92	47.27	95	22-160	0-183	3	0-20	
2-Butanone	50.00	51.69	103	50.50	101	44-164	24-184	2	0-20	
n-Butylbenzene	50.00	49.73	99	52.62	105	80-132	71-141	6	0-20	
sec-Butylbenzene	50.00	48.73	97	51.20	102	80-129	72-137	5	0-20	
tert-Butylbenzene	50.00	48.96	98	49.88	100	80-130	72-138	2	0-20	
Carbon Disulfide	50.00	49.06	98	50.08	100	60-126	49-137	2	0-20	
Carbon Tetrachloride	50.00	46.57	93	49.20	98	64-148	50-162	5	0-20	
Chlorobenzene	50.00	49.03	98	50.41	101	80-120	73-127	3	0-20	
Chloroethane	50.00	43.37	87	45.26	91	63-123	53-133	4	0-20	
Chloroform	50.00	47.52	95	48.81	98	79-121	72-128	3	0-20	
Chloromethane	50.00	42.04	84	44.43	89	43-133	28-148	6	0-20	
2-Chlorotoluene	50.00	48.28	97	49.94	100	80-130	72-138	3	0-20	
4-Chlorotoluene	50.00	47.30	95	48.79	98	80-121	73-128	3	0-20	
Dibromochloromethane	50.00	50.81	102	51.08	102	80-125	72-132	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	57.05	114	53.57	107	68-128	58-138	6	0-20	
1,2-Dibromoethane	50.00	52.47	105	52.68	105	80-120	73-127	0	0-20	
Dibromomethane	50.00	49.56	99	49.36	99	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	50.00	49.92	100	50.77	102	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	49.22	98	50.44	101	80-121	73-128	2	0-20	
1,4-Dichlorobenzene	50.00	48.89	98	49.89	100	80-120	73-127	2	0-20	
Dichlorodifluoromethane	50.00	34.59	69	40.12	80	25-187	0-214	15	0-20	
1,1-Dichloroethane	50.00	46.62	93	47.91	96	75-120	68-128	3	0-20	
1,2-Dichloroethane	50.00	47.88	96	46.87	94	80-123	73-130	2	0-20	
1,1-Dichloroethene	50.00	48.14	96	49.46	99	74-122	66-130	3	0-20	
c-1,2-Dichloroethene	50.00	48.79	98	49.29	99	75-123	67-131	1	0-20	
t-1,2-Dichloroethene	50.00	45.13	90	48.51	97	70-124	61-133	7	0-20	
1,2-Dichloropropane	50.00	49.42	99	50.89	102	80-120	73-127	3	0-20	
1,3-Dichloropropane	50.00	51.14	102	51.68	103	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	39.08	78	44.37	89	49-151	32-168	13	0-20	
1,1-Dichloropropene	50.00	48.53	97	50.43	3 101	76-120	69-127	4	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/08/16 16-09-0478 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Con	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	47.19	94	49.14	98	80-124	73-131	4	0-20	
t-1,3-Dichloropropene	50.00	50.26	101	51.48	103	68-128	58-138	2	0-20	
Ethylbenzene	50.00	48.50	97	50.62	101	80-120	73-127	4	0-20	
2-Hexanone	50.00	55.12	110	54.60	109	57-147	42-162	1	0-20	
Isopropylbenzene	50.00	48.72	97	50.93	102	80-127	72-135	4	0-20	
p-Isopropyltoluene	50.00	49.45	99	52.01	104	80-125	72-132	5	0-20	
Methylene Chloride	50.00	48.39	97	50.24	100	74-122	66-130	4	0-20	
4-Methyl-2-Pentanone	50.00	55.15	110	53.49	107	71-125	62-134	3	0-20	
Naphthalene	50.00	60.26	121	58.69	117	54-144	39-159	3	0-20	
n-Propylbenzene	50.00	43.90	88	45.41	91	80-127	72-135	3	0-20	
Styrene	50.00	50.41	101	52.06	104	80-120	73-127	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	51.29	103	52.65	105	80-125	72-132	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	54.61	109	53.25	106	78-126	70-134	3	0-20	
Tetrachloroethene	50.00	50.14	100	55.52	111	57-141	43-155	10	0-20	
Toluene	50.00	48.80	98	50.14	100	80-120	73-127	3	0-20	
1,2,3-Trichlorobenzene	50.00	55.50	111	55.89	112	58-154	42-170	1	0-20	
1,2,4-Trichlorobenzene	50.00	54.88	110	56.49	113	57-153	41-169	3	0-20	
1,1,1-Trichloroethane	50.00	46.41	93	49.06	98	76-124	68-132	6	0-20	
1,1,2-Trichloro-1,2,2- Trifluoroethane	50.00	47.19	94	52.07	104	58-148	43-163	10	0-20	
1,1,2-Trichloroethane	50.00	50.62	101	51.08	102	80-120	73-127	1	0-20	
Trichloroethene	50.00	47.97	96	49.15	98	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	44.41	89	49.11	98	64-136	52-148	10	0-20	
1,2,3-Trichloropropane	50.00	52.88	106	52.37	105	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	48.45	97	50.21	100	80-120	73-127	4	0-20	
1,3,5-Trimethylbenzene	50.00	48.48	97	50.81	102	80-126	72-134	5	0-20	
Vinyl Acetate	50.00	19.18	38	18.19	36	34-172	11-195	5	0-20	
Vinyl Chloride	50.00	42.02	84	45.04	90	67-127	57-137	7	0-20	
p/m-Xylene	100.0	93.34	93	96.76	97	80-127	72-135	4	0-20	
o-Xylene	50.00	47.35	95	49.29	99	80-127	72-135	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.86	96	50.95	102	71-120	63-128	6	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



# **Sample Analysis Summary Report**

Work Order: 16-09-0478				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 300.0	N/A	1083	IC 15	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	986	GC/MS Z	2
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 8	1
SM 5540C	N/A	990	UV 7	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



# **Glossary of Terms and Qualifiers**

Work Order: 16-09-0478 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN OF CUSTODY RECORD

9-6-16 +9-7-16 DATE

Kenjo Agustsson SAMPLER(S): (PRINT) SB0794

> PROJECT CONTACT Kevin Coffman

CG Roxane

REQUESTED ANALYSES

Please check box or fill in blank as needed

PAGE:

16-09-0478

WO # / LAB USE ONLY

rime: |*O* 3 c SVOCs (8270) Nitrogen, NO3+NO2 (TON) Nitrogen, Ammonia Nitrogen, Total Kjeldahl (TKN) Phosphate, Total Phosphorus, Total Total Dissolved Solids (TDS) Surfactants (MBAS) Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) Metals, Dissolved (Field Filtered) 7 2 Uppreserved Seosintec Relinquished by: (Signature) Relinquished by: (Signature)

36/02/14 Revision

Page.



WORK ORDER NUMBER: 16-09-123 of 1970

Calscience

# SAMPLE RECEIPT CHECKLIST COOLER 1 OF 3

CLIENT: GROSYNTEC	DAT	re: 09 /	081	2016
TEMPERATURE: (Criteria: 0.0°C − 6.0°C, not frozen except son Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): ⊆ Sample(s) outside temperature criteria (PM/APM contact Sample(s) outside temperature criteria but received on ice	2 > S_°C (w/ CF): 2 > S_°C; <b>L</b> ed by:)	Blank	□ Sample	е
☐ Sample(s) received at ambient temperature; placed on ice for the Ambient Temperature: ☐ Air ☐ Filter	or transport by courier	Checke	d by: 1	<u>S_</u>
CUSTODY SEAL:  Cooler □ Present and Intact □ Present but Not Inta  Sample(s) □ Present and Intact □ Present but Not Inta		Checke Checke	d by: <u> </u> d by: <u> </u>	s 53
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples. COC document(s) received complete		Yes D	No	N/A
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number ☐ No analysis requested ☐ Not relinquished ☐ No rel	quished date	. <u>p</u> . o . d		0 0 0
Proper containers for analyses requested  Sufficient volume/mass for analyses requested  Samples received within holding time  Aqueous samples for certain analyses received within 15-received.	ninute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Proper preservation chemical(s) noted on COC and/or sample Unpreserved aqueous sample(s) received for certain analy ☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals	solved Oxygene containeryses			
Container(s) for certain analysis free of headspace	Dissolved Oxygen (SM 4500)  ☐ Hydrogen Sulfide (Hach)	🗖		o ·
CONTAINER TYPE:  Aqueous: DVOA DVOAh DVOAna2 D100PJ D100PJ D125PBznna D250AGB D250CGB D250CGBs D250CGB	(Trip Blank Lot Numb na₂ □ 125AGB □ 125AGBh □ 125 PB ☑ 250PBn □ 500AGB □ 500AG na ☑ 250PBnul □ □ □ □ ) □ EnCores® (□ □ □ TerraCores Other Matrix (□ □ □ □	oer:] 6 AGBp	125PB AGJs ]	
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glasservative: b = buffered, f = filtered, h = HCl, n = HNO <sub>3</sub> , na = Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Nation S = Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + Ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> +	ass, $\mathbf{J} = \text{Jar}$ , $\mathbf{P} = \text{Plastic}$ , and $\mathbf{Z} = \text{Ziploc/R}$ OH, $\mathbf{na_2} = \text{Na}_2\text{S}_2\text{O}_3$ , $\mathbf{p} = \text{H}_3\text{PO}_4$ , Labe	esealable led/Check	Bag	į

WORK ORDER NUMBER: 16-099 13401 727

Calscience

# SAMPLE RECEIPT CHECKLIST COOLER 2 OF 3

LIENT: GROSYNTEC	DATE: 09 /	081	2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF):	ng	□ Samp	
CUSTODY SEAL:  Cooler □ Present and Intact □ Present but Not Intact □ Not Present □ N/A  Sample(s) □ Present and Intact □ Present but Not Intact □ Not Present □ N/A		d by: <u> </u> d by: <b>_/ø</b>	
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  Sampling date Sampling time Matrix Number of containers	Yes	No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished  Sampler's name indicated on COC  Sample container label(s) consistent with COC	🗷		 
Sample container (s) intact and in good condition  Proper containers for analyses requested  Sufficient volume/mass for analyses requested	🗷		_ _ _
Samples received within holding time  Aqueous samples for certain analyses received within 15-minute holding time	2		o ø
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen  Proper preservation chemical(s) noted on COC and/or sample container  Unpreserved aqueous sample(s) received for certain analyses	<u>a</u>		
□ Volatile Organics □ Total Metals □ Dissolved Metals  Container(s) for certain analysis free of headspace		0	Ø.
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)  Tedlar™ bag(s) free of condensation	🗆		<b>Ø</b>
Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125AGB □ 125AGBh □ 125PBznna □ 250AGB □ 250CGB ☑ 250CGBs ☑ 250PB ☑ 250PBn □ 500AGB □ 500PB ☑ 1AGB □ 1AGBna₂ ☑ 1AGBs ☑ 1PB □ 1PBna ☑ 250PBn, □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	125AGB <b>p</b> / 200AGJ	125PB AGJs	
Preservative: $\mathbf{b} = \text{buffered}$ , $\mathbf{f} = \text{filtered}$ , $\mathbf{h} = \text{HCI}$ , $\mathbf{n} = \text{HNO}_3$ , $\mathbf{na} = \text{NaOH}$ , $\mathbf{na}_2 = \text{Na}_2\text{S}_2\text{O}_3$ , $\mathbf{p} = \text{H}_3\text{PO}_4$ , $\mathbf{s} = \text{H}_2\text{SO}_4$ , $\mathbf{u} = \text{ultra-pure}$ , $\mathbf{znna} = \text{Zn}$ (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + NaOH	abeled/Check	ed by: $\it I$ red by: $\it \_$	802

WORK ORDER NUMBER: 16-09-

# Calscience SAMPLE RECEIPT CHECKLIST COOLER 3 OF 3

LIENT: Grosyntec		DAT	E: 09 /	081	2016
TEMPERATURE: (Criteria: 0.0°C − 6.0°C, not frozen except sedimentary Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2 · □ Sample(s) outside temperature criteria (PM/APM contacted by □ Sample(s) outside temperature criteria but received on ice/chi □ Sample(s) received at ambient temperature; placed on ice for transport to the content of the	\°C (w/ CF): <u>∠ ·</u> y:) lled on same day of sa			□ Samp	_
Ambient Temperature: □ Air □ Filter					
CUSTODY SEAL:  Cooler ☐ Present and Intact ☐ Present but Not Intact  Sample(s) ☐ Present and Intact ☐ Present but Not Intact	2 119(1) (000)	⊐ N/A □ N/A		d by: <u>l</u> d by: <u>l</u>	53
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete	••••••••		Yes	No	N/A
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of c☐ No analysis requested ☐ Not relinquished ☐ No relinquish Sampler's name indicated on COC	ed date			0	
Sample container label(s) consistent with COC					
Proper containers for analyses requested  Sufficient volume/mass for analyses requested  Samples received within holding time					0
Aqueous samples for certain analyses received within 15-minut    ¬ pH ¬ Residual Chlorine ¬ Dissolved Sulfide ¬ Dissolved Proper preservation chemical(s) noted on COC and/or sample con	e holding time d Oxygen				
Unpreserved aqueous sample(s) received for certain analyses  ☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals					
Container(s) for certain analysis free of headspace	lved Oxygen (SM 4500 Hydrogen Sulfide (Hac	0) h)			
Tedlar™ bag(s) free of condensation			. 🗆		
CONTAINER TYPE:  Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125PBznna □ 250AGB □ 250CGB ☑ 250CGBs ☑ 250PB ☑ ☑ 500PB ☑ 1AGB □ 1AGBna₂ ☑ 1AGBs ☑ 1PB □ 1PBna ☑ Solid: □ 4ozCGJ □ 8ozCGJ □ 16ozCGJ □ Sleeve () □  Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □	(Trip Blank ☐ 125AGB ☐ 125AGB ☑ 250PBn ☐ 500AGB ☑ 250 PBn, ☐ EnCores® () ☐ ☐ ☐ Other Matrix (	Lot Numb  Bh	er: AGBp	125PB AGJs	
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J  Preservative: b = buffered, f = filtered, h = HCl, n = HNO <sub>3</sub> , na = NaOH, r  s = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + NaOH	$\mathbf{P} = \mathbf{Jar}, \mathbf{P} = \mathbf{Plastic}, \text{ and } \mathbf{Z}$ $\mathbf{na_2} = \mathbf{Na_2S_2O_3}, \mathbf{p} = \mathbf{H_3PO}$	z = Ziploc/Re <sub>4</sub> , Labele	ea/Uneck	ed by: <u>∫</u> /ed by: _	053 8r

Calscience

WORK ORDER NUMBER: 16-09- 226 of 127 €

# SAMPLE ANOMALY REPORT

DATE: 09 / 08 / 2016

·											
SAMPLE	S, CONTAIN	ERS, AN	D LABEL	S:			Comme	nts			
☐ Sample	(s) NOT RECE	IVED but	listed on CO	C		•	= \ 5			Ē	
☑ Sample	(s) received bu	ıt NOT LIS	TED on CC	C	(-	(-7) Received 17 Containers					
☐ Holding	time expired (	list client o	r ECI samp	le ID and ana	lysis)		Labeled as QCEB-02-090616				
☐ Insufficie	ent sample am	ount for re	quested an	alysis (list and	alysis)			9/6/16	<u> 1800</u>		
☐ Imprope	r container(s)	used (list a	analysis)				<u> </u>	contain	ner typ	e	
☐ Imprope	r preservative	used (list	analysis)								
☐ No prese	ervative noted	on COC o	or label (list	analysis and r	notify lab)						
□ Sample	container(s) n	ot labeled									
☐ Client sa	ample label(s)	illegible (li	st container	type and ana	ılysis)						
☐ Client sa	ample label(s)	do not ma	tch COC (co	omment)							
□ Proje	ect information										
☐ Clien	nt sample ID										
□ Sam	pling date and	/or time									
□ Num	ber of containe	er(s)									
☐ Requ	uested analysi	s									
□ Sample	container(s) c	ompromise	∍d (commer	ıt)							
☐ Brok	en										
□ Wate	er present in sa	ample conf	tainer								
☐ Air samp	ole container(s	) compron	nised (comn	nent)							
□ Flat											
□ Very	low in volume	;					*****		***		
□ Leak	ing (not transf	erred; dup	licate bag s	ubmitted)							
☐ Leak	ing (transferre	d into ECI	Tedlar™ ba	ags*)							
☐ Leak	ing (transferre	d into clier	าt's Tedlar™	¹ bags*)							
* Transfer	red at client's requ	jest.									
MISCELL	ANEOUS: ([	)escribe)					Comme	nts			
HEADSP	ACE:										
(Containers w	ith bubble > 6 mm	or ¼ inch for	volatile organi	or dissolved gas	s analysis)	(	Containers w	ith bubble for othe	r analysis)		
ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**		ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis	
	*					l					
						lŀ					
	<u>.</u>					<b> </b>					
Comments	:									_	
									R	eported by: 1053 eviewed by: Sv	
** Record the	total number of co	ntainers (i.e	vials or bottles	) for the affected	sample.				Re	eviewed by: Sr	



# Calscience



# **WORK ORDER NUMBER: 16-09-0590**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Moude

Suite 4A

Santa Barbara, CA 93101-2177

ResultLink >

Email your PM >

Approved for release on 09/20/2016 by:

Stephen Nowak Project Manager

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number:	16-09-0590

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### **Work Order Narrative**

Work Order: 16-09-0590 Page 1 of 1

### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/09/16. They were assigned to Work Order 16-09-0590.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



# **Sample Summary**

Client: Geosyntec Consultants

Work Order: Project Name: 16-09-0590

924 Anacapa Street, Suite 4A

PO Number:

CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Date/Time Received:

09/09/16 10:20

Number of Containers: 138

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-13-090716	16-09-0590-1	09/07/16 12:31	17	Aqueous
QCTB-03-090716	16-09-0590-2	09/07/16 00:00	2	Aqueous
MW-09-090716	16-09-0590-3	09/07/16 13:50	17	Aqueous
MW-08-090716	16-09-0590-4	09/07/16 14:58	17	Aqueous
QCEB-03-090716	16-09-0590-5	09/07/16 16:00	17	Aqueous
MW-11-090816	16-09-0590-6	09/08/16 08:27	17	Aqueous
MW-05-090816	16-09-0590-7	09/08/16 09:45	17	Aqueous
MW-04-090816	16-09-0590-8	09/08/16 10:55	17	Aqueous
MW-04-090816-DUP	16-09-0590-9	09/08/16 10:55	17	Aqueous



16-09-0590

Client: Geosyntec Consultants Work Order:

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/09/16

Attn: Kevin Coffman Page 1 of 7

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-13-090716 (16-09-0590-1)						
Calcium	36.9		0.100	mg/L	EPA 200.7	N/A
Magnesium	3.67		0.100	mg/L	EPA 200.7	N/A
Sodium	135		0.500	mg/L	EPA 200.7	N/A
Chloride	170		2.0	mg/L	EPA 300.0	N/A
Sulfate	42		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00876		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00332		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00125		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00659		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00642		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00827		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00351		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0106		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00576		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0118		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	129		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	105		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	475		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.50		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.5		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.56		0.50	mg/L	Total Nitrogen by Calc	N/A
				<i>3</i> ′ –		*

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0590

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/09/16

Attn: Kevin Coffman Page 2 of 7

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-09-090716 (16-09-0590-3)						
Calcium	119		0.100	mg/L	EPA 200.7	N/A
Magnesium	5.84		0.100	mg/L	EPA 200.7	N/A
Sodium	81.2		0.500	mg/L	EPA 200.7	N/A
Chloride	6.4		1.0	mg/L	EPA 300.0	N/A
Sulfate	350		5.0	mg/L	EPA 300.0	N/A
Antimony	0.00199		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0545		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0438		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00422		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0864		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00253		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00521		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00662		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00202		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0582		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0470		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00459		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0864		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00300		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00572		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00829		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	154		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	154		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	665		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.37		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.1		0.10	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.33		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.85		0.50	mg/L	Total Nitrogen by Calc	N/A
i otai ivitiogen	0.00		0.50	mg/L	Total Millogen by Calc	TN/F

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Kevin Coffman

Attn:

Work Order: 16-09-0590

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

09/09/16

Santa Barbara, CA 93101-2177 Received:

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Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	Extraction
MW-08-090716 (16-09-0590-4)						
Calcium	21.5		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.59		0.100	mg/L	EPA 200.7	N/A
Sodium	30.2		0.500	mg/L	EPA 200.7	N/A
Chloride	4.1		1.0	mg/L	EPA 300.0	N/A
Sulfate	5.2		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0291		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00684		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0107		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0316		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00769		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00737		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	112		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	112		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	175		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.19		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.60		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.45		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.56		0.50	mg/L	Total Nitrogen by Calc	N/A
QCEB-03-090716 (16-09-0590-5)						
Calcium	2.35		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.224		0.100	mg/L	EPA 200.7	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Kevin Coffman

Attn:

Work Order: 16-09-0590

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

09/09/16

Santa Barbara, CA 93101-2177 Received:

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Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-11-090816 (16-09-0590-6)						
Calcium	66.9		0.100	mg/L	EPA 200.7	N/A
Magnesium	5.89		0.100	mg/L	EPA 200.7	N/A
Sodium	328		0.500	mg/L	EPA 200.7	N/A
Chloride	19		1.0	mg/L	EPA 300.0	N/A
Sulfate	390		5.0	mg/L	EPA 300.0	N/A
Arsenic	0.0560		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00286		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0620		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00240		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00261		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00546		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0584		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0179		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00143		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00641		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00112		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0628		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00292		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00511		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0277		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	414		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	414		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1100		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.98		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.30		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.93		0.10	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.93		0.31	mg/L	SM 4500 F B/C	N/A
Total Nitrogen	0.22		0.10	•	Total Nitrogen by Calc	N/A
rotai Mitrogen	0.90		0.50	mg/L	rotal Millogen by Calc	IN/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order: 16-09-0590

924 Anacapa Street, Suite 4A

Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177

Received: 09/09/16

Attn: Kevin Coffman Page 5 of 7

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
MW-05-090816 (16-09-0590-7)						
Calcium	19.0		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.47		0.100	mg/L	EPA 200.7	N/A
Sodium	258		0.500	mg/L	EPA 200.7	N/A
Chloride	10		1.0	mg/L	EPA 300.0	N/A
Sulfate	300		5.0	mg/L	EPA 300.0	N/A
Antimony	0.00334		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.191		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00513		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00499		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.124		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00129		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0680		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00334		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.181		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00661		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00107		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00643		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00152		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0640		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0194		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	266		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	260		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	780		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.50		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.5		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
Nitrate-Nitrite (as N)	0.14		0.10	mg/L	SM 4500-NO3 E	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants Work Order: 16-09-0590

924 Anacapa Street, Suite 4A Project Name: CG Roxane / SB0794

Santa Barbara, CA 93101-2177 Received: 09/09/16

Attn: Kevin Coffman Page 6 of 7

lient SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
1W-04-090816 (16-09-0590-8)						
Calcium	1.93		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.353		0.100	mg/L	EPA 200.7	N/A
Sodium	379		0.500	mg/L	EPA 200.7	N/A
Chloride	6.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	380		10	mg/L	EPA 300.0	N/A
Antimony	0.00297		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.134		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00335		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00504		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.143		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0296		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00826		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00279		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.125		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00808		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00137		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00601		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00168		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.136		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00136		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0302		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0320		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	337		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	189		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	975		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.91		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.53		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.6		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.43		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.91		0.50	mg/L	Total Nitrogen by Calc	N/A

<sup>\*</sup> MDL is shown



Client: Geosyntec Consultants

Work Order: 16-09-0590 Project Name: CG Roxane / SB0794 924 Anacapa Street, Suite 4A

Received: 09/09/16 Santa Barbara, CA 93101-2177

Kevin Coffman Attn: Page 7 of 7

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	Method	Extraction
MW-04-090816-DUP (16-09-0590-9)						
Calcium	1.97		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.370		0.100	mg/L	EPA 200.7	N/A
Sodium	383		0.500	mg/L	EPA 200.7	N/A
Chloride	6.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	400		10	mg/L	EPA 300.0	N/A
Antimony	0.00302		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.134		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00325		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00477		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.147		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0305		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00295		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.127		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00863		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00144		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00605		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00170		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.142		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00148		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0307		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0284		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	327		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	195		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1050		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.84		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.53		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.6		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.38		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.84		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown

09/09/16



Geosyntec Consultants

# **Analytical Report**

Date Received:

924 Anacapa Street, Suite 4A			Work Order	<b>:</b>			16-09-0590	
Santa Barbara, CA 93101-2177			Preparation				N/A	
Carna Barbara, C/COTOT 2177			Method:	•			EPA 300.0	
			Units:				mg/L	
Project: CG Roxane / SB0794			O.m.o.			Pa	nge 1 of 3	
Client Comple Number	Lab Carrella	Data/Times	Matrice	la atm. ma a mt	Data	Data/Time	OC Datab ID	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
MW-13-090716	16-09-0590-1-Q	09/07/16 12:31	Aqueous	IC 10	N/A	09/10/16 01:44	160909L02	
<u>Parameter</u>		Result	RL	•	DF	Qua	<u>alifiers</u>	
Sulfate		42	1.0		1.00			
MW-13-090716	16-09-0590-1-Q	09/07/16 12:31	Aqueous	IC 10	N/A	09/12/16 11:58	160912L01	
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qualifiers		
Chloride		170	2.0		2.00			
MW-09-090716	16-09-0590-3-Q	09/07/16 13:50	Aqueous	IC 10	N/A	09/10/16 02:03	160909L02	
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>	
Chloride		6.4	1.0		1.00			
MW-09-090716	16-09-0590-3-Q	09/07/16 13:50	Aqueous	IC 10	N/A	09/12/16 12:17	160912L01	
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>	
Sulfate		350	5.0		5.00			
MW-08-090716	16-09-0590-4-Q	09/07/16 14:58	Aqueous	IC 10	N/A	09/10/16 02:22	160909L02	
Parameter		Result	<u>RL</u>		<u>DF</u>	<u>Qua</u>	<u>alifiers</u>	
Chloride		4.1	1.0		1.00			
Sulfate		5.2	1.0		1.00			
QCEB-03-090716	16-09-0590-5-Q	09/07/16 16:00	Aqueous	IC 10	N/A	09/10/16 02:41	160909L02	
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>	
Chloride		ND	1.0		1.00			
Sulfate		ND	1.0		1.00			
MW-11-090816	16-09-0590-6-Q	09/08/16 08:27	Aqueous	IC 10	N/A	09/10/16 03:00	160909L02	
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>	
Chloride		19	1.0		1.00			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



# **Analytical Report**

Geosyntec Consultants			Date Receiv	/ed:			09/09/16
924 Anacapa Street, Suite 4A					16-09-0590		
Santa Barbara, CA 93101-2177			Preparation	:			N/A
			Method:				EPA 300.0
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	nge 2 of 3
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	16-09-0590-6-Q	09/08/16 08:27	Aqueous	IC 10	N/A	09/12/16 12:36	160912L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Sulfate		390	5.0		5.00		
MW-05-090816	16-09-0590-7-Q	09/08/16 09:45	Aqueous	IC 10	N/A	09/10/16 03:18	160909L02
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Chloride		10	1.0		1.00		
MW-05-090816	16-09-0590-7-Q	09/08/16 09:45	Aqueous	IC 10	N/A	09/12/16 12:55	160912L01
<u>Parameter</u>		Result	RL		DF	Qua	alifiers
Sulfate		300	5.0		5.00		
MW-04-090816	16-09-0590-8-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/10/16 03:37	160909L02
<u>Parameter</u>		Result	RL		DF	Qua	alifiers
Chloride		6.9	1.0		1.00		
MW-04-090816	16-09-0590-8-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/12/16 13:14	160912L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Sulfate		380	10		10.0		
MW-04-090816-DUP	16-09-0590-9-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/10/16 03:56	160909L02
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Chloride		6.9	1.0		1.00		
MW-04-090816-DUP	16-09-0590-9-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/12/16 13:33	160912L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Sulfate		400	10		10.0		
Method Blank	099-12-906-6933	N/A	Aqueous	IC 10	N/A	09/09/16 21:34	160909L02
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Chloride		ND	1.0		1.00		
Sulfate		ND	1.0		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



# **Analytical Report**

 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-906-6932	N/A	Aqueous	IC 10	N/A	09/12/16 10:49	160912L01
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Chloride		ND	1.0	)	1.00		
Sulfate		ND	1.0	)	1.00		





 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 200.7

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 1 of 2

Froject. CG Roxalle / 3B0/94					rage 1 01 2		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	16-09-0590-1-N	09/07/16 12:31	Aqueous	ICP 7300	09/13/16	09/15/16 12:51	160913LA6
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Calcium		36.9	0.1	100	1.00		
Magnesium		3.67	0.1	100	1.00		
Sodium		135	0.5	500	1.00		
MW-09-090716	16-09-0590-3-N	09/07/16 13:50	Aqueous	ICP 7300	09/13/16	09/15/16 12:53	160913LA6
Parameter		Result	RL	=	<u>DF</u>	Qualifiers	
Calcium		119	0.1	100	1.00		
Magnesium		5.84	0.1	100	1.00		
Sodium		81.2	0.5	500	1.00		
MW-08-090716	16-09-0590-4-N	09/07/16 14:58	Aqueous	ICP 7300	09/13/16	09/15/16 12:54	160913LA6
Parameter		Result	RL	=	<u>DF</u>	Qua	alifiers
Calcium		21.5	0.1	100	1.00		

Calcium		21.5	0.100	1.00		
Magnesium		1.59	0.100	1.00		
Sodium		30.2	0.500	1.00		
QCEB-03-090716	16-09-0590-5-N	09/07/16 16:00	Aqueous ICP 7300	09/13/16	09/15/16 12:55	160913LA6
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qualifiers	
Calcium		2.35	0.100	1.00		
Magnesium		0.224	0.100	1.00		
Sodium		ND	0.500	1.00		

MW-11-090816	16-09-0590-6-N	09/08/16 08:27	Aqueous ICP 7300	09/13/16	09/15/16 160913LA6 12:59
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Calcium		66.9	0.100	1.00	
Magnesium		5.89	0.100	1.00	
Sodium		328	0.500	1.00	



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 200.7

 Units:
 mg/L

Project: CG Roxane / SB0794	Page 2 of 2
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	16-09-0590-7-N	09/08/16 09:45	Aqueous	ICP 7300	09/13/16	09/15/16 13:00	160913LA6
<u>Parameter</u>	·	Result	RL		<u>DF</u>	Qua	alifiers
Calcium		19.0	0.1	00	1.00		
Magnesium		1.47	0.1	00	1.00		
Sodium		258	0.5	500	1.00		
MW-04-090816	16-09-0590-8-N	09/08/16 10:55	Aqueous	ICP 7300	09/13/16	09/15/16 13:02	160913LA6
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Calcium		1.93	0.1	00	1.00		
Magnesium		0.353	0.1	00	1.00		
Sodium		379	0.5	500	1.00		
			-				

MW-04-090816-DUP	16-09-0590-9-N	09/08/16 10:55	Aqueous I	ICP 7300 09/13/1	6 09/15/16 13:03	160913LA6
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>ifiers</u>
Calcium		1.97	0.100	1.00		
Magnesium		0.370	0.100	1.00		
Sodium		383	0.500	1.00		

Method Blank	097-01-012-6682	N/A	Aqueous ICP 7300	09/13/16	09/15/16 160913LA6 16:39
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Calcium		ND	0.100	1.00	
Magnesium		ND	0.100	1.00	
Sodium		ND	0.500	1.00	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	16-09-0590-1-N	09/07/16 12:31	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:15	160914LA1
Parameter		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00827	0.0	00100	1.00		
Barium		0.00351	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0106	0.0	00100	1.00		
Nickel		0.00121	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00576	0.0	00100	1.00		
Zinc		0.0118	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3020A Total EPA 6020 mg/L

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Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	16-09-0590-3-N	09/07/16 13:50	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:17	160914LA1
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00202	0.0	00100	1.00		
Arsenic		0.0582	0.0	00100	1.00		
Barium		0.0470	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00459	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0864	0.0	00100	1.00		
Nickel		0.00300	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00572	0.0	0100	1.00		
Zinc		0.00829	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3020A Total EPA 6020 mg/L

09/09/16

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	16-09-0590-4-N	09/07/16 14:58	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:20	160914LA1
Parameter		Result	RL	•	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0107	0.0	00100	1.00		
Barium		0.0316	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00769	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		0.00737	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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16-09-0590 EPA 3020A Total EPA 6020 mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	16-09-0590-5-N	09/07/16 16:00	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:51	160914LA1
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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09/09/16 16-09-0590 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	16-09-0590-6-N	09/08/16 08:27	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:53	160914LA1
Parameter		Result	RL	<b>.</b>	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0584	0.0	00100	1.00		
Barium		0.0179	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00143	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00641	0.0	00100	1.00		
Lead		0.00112	0.0	00100	1.00		
Molybdenum		0.0628	0.0	00100	1.00		
Nickel		0.00292	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00511	0.0	00100	1.00		
Zinc		0.0277	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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09/09/16 16-09-0590 EPA 3020A Total EPA 6020 mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	16-09-0590-7-N	09/08/16 09:45	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:56	160914LA1
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		0.00334	0.0	00100	1.00		
Arsenic		0.181	0.0	00100	1.00		
Barium		0.00661	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00107	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00643	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.121	0.0	00100	1.00		
Nickel		0.00152	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0640	0.0	00100	1.00		
Zinc		0.0194	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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09/09/16 16-09-0590 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	16-09-0590-8-N	09/08/16 10:55	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:59	160914LA1
Parameter	·	Result	RL	•	<u>DF</u>	Qua	alifiers
Antimony		0.00279	0.0	00100	1.00		
Arsenic		0.125	0.0	00100	1.00		
Barium		0.00808	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00137	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00601	0.0	00100	1.00		
Lead		0.00168	0.0	00100	1.00		
Molybdenum		0.136	0.0	00100	1.00		
Nickel		0.00136	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0302	0.0	00100	1.00		
Zinc		0.0320	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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09/09/16 16-09-0590 EPA 3020A Total EPA 6020 mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	16-09-0590-9-N	09/08/16 10:55	Aqueous	ICP/MS 03	09/14/16	09/14/16 21:01	160914LA1
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Quali	fiers
Antimony		0.00295	0.0	00100	1.00		
Arsenic		0.127	0.0	00100	1.00		
Barium		0.00863	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		0.00144	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00605	0.0	00100	1.00		
Lead		0.00170	0.0	00100	1.00		
Molybdenum		0.142	0.0	00100	1.00		
Nickel		0.00148	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0307	0.0	00100	1.00		
Zinc		0.0284	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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16-09-0590 EPA 3020A Total EPA 6020 mg/L

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Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5318	N/A	Aqueous	ICP/MS 03	09/14/16	09/14/16 19:34	160914LA1
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	16-09-0590-1-O	09/07/16 12:31	Aqueous	ICP/MS 03	09/14/16	09/14/16 19:49	160914LA1F
<u>Parameter</u>		Result	RL	•	DF	Qua	<u>alifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.00876	0.0	00100	1.00		
Barium		0.00332	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0111	0.0	00100	1.00		
Nickel		0.00125	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00659	0.0	00100	1.00		
Zinc		0.00642	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	16-09-0590-3-O	09/07/16 13:50	Aqueous	ICP/MS 03	09/14/16	09/14/16 19:57	160914LA1F
Parameter	·	Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Antimony		0.00199	0.0	00100	1.00		
Arsenic		0.0545	0.0	00100	1.00		
Barium		0.0438	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00422	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0864	0.0	00100	1.00		
Nickel		0.00253	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00521	0.0	00100	1.00		
Zinc		0.00662	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

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16-09-0590 EPA 3005A Filt. EPA 6020

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Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	16-09-0590-4-O	09/07/16 14:58	Aqueous	ICP/MS 03	09/14/16	09/15/16 13:18	160914LA1F
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0113	0.0	00100	1.00		
Barium		0.0291	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00684	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	16-09-0590-5-O	09/07/16 16:00	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:02	160914LA1F
<u>Parameter</u>		Result	RL	:	DF	Qua	<u>alifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	16-09-0590-6-O	09/08/16 08:27	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:05	160914LA1F
Parameter		Result	RL	•	<u>DF</u>	Qual	<u>ifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0560	0.0	00100	1.00		
Barium		0.0148	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00286	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.0620	0.0	00100	1.00		
Nickel		0.00240	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.00261	0.0	00100	1.00		
Zinc		0.00546	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	16-09-0590-7-O	09/08/16 09:45	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:07	160914LA1F
Parameter	·	Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		0.00334	0.0	00100	1.00		
Arsenic		0.191	0.0	00100	1.00		
Barium		0.00513	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00499	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.124	0.0	00100	1.00		
Nickel		0.00129	0.0	0100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		0.0680	0.0	00100	1.00		
Zinc		ND	0.0	0500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

09/09/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	16-09-0590-8-O	09/08/16 10:55	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:10	160914LA1F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		0.00297	0.0	00100	1.00		
Arsenic		0.134	0.0	00100	1.00		
Barium		0.00335	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00504	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.143	0.0	00100	1.00		
Nickel		0.00120	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0296	0.0	00100	1.00		
Zinc		0.00826	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

09/09/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	16-09-0590-9-O	09/08/16 10:55	Aqueous	ICP/MS 03	09/14/16	09/14/16 20:12	160914LA1F
Parameter		Result	RL	•	<u>DF</u>	Qual	ifiers
Antimony		0.00302	0.0	00100	1.00		
Arsenic		0.134	0.0	00100	1.00		
Barium		0.00325	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		0.00477	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.147	0.0	00100	1.00		
Nickel		0.00111	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		0.0305	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1209	N/A	Aqueous	ICP/MS 03	09/14/16	09/14/16 19:34	160914LA1F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND		00500	1.00		



Geosyntec Consultants			Date Recei	ved:			09/09/16
924 Anacapa Street, Suite 4A	Work Order:				16-09-0590		
Santa Barbara, CA 93101-2177			Preparation	n:		EP	A 7470A Total
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	ige 1 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	16-09-0590-1-N	09/07/16 12:31	Aqueous	Mercury 05	09/14/16	09/14/16 20:28	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-09-090716	16-09-0590-3-N	09/07/16 13:50	Aqueous	Mercury 05	09/14/16	09/14/16 20:05	160914LA2
Parameter		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-08-090716	16-09-0590-4-N	09/07/16 14:58	Aqueous	Mercury 05	09/14/16	09/14/16 20:08	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
QCEB-03-090716	16-09-0590-5-N	09/07/16 16:00	Aqueous	Mercury 05	09/14/16	09/14/16 20:10	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-11-090816	16-09-0590-6-N	09/08/16 08:27	Aqueous	Mercury 05	09/14/16	09/14/16 20:20	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-05-090816	16-09-0590-7-N	09/08/16 09:45	Aqueous	Mercury 05	09/14/16	09/14/16 20:22	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
MW-04-090816	16-09-0590-8-N	09/08/16 10:55	Aqueous	Mercury 05	09/14/16	09/14/16 20:24	160914LA2
Parameter		Result	RL		DF	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-04-090816-DUP	16-09-0590-9-N	09/08/16 10:55	Aqueous	Mercury 05	09/14/16	09/14/16 20:26	160914LA2
Parameter		Result	RL		DF	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		



Geosyntec ConsultantsDate Received:09/09/16924 Anacapa Street, Suite 4AWork Order:16-09-0590Santa Barbara, CA 93101-2177Preparation:EPA 7470A TotalMethod:EPA 7470AUnits:mg/L

Project: CG Roxane / SB0794 Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-04-008-7973	N/A	Aqueous	Mercury 05	09/14/16	09/14/16 19:28	160914LA2
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	lifiers
Mercury		ND	0.0	000500	1.00		





Geosyntec Consultants			Date Recei	ved:			09/09/16
924 Anacapa Street, Suite 4A		,	Work Ordei	r:			16-09-0590
Santa Barbara, CA 93101-2177			Preparation	n:		Е	PA 7470A Filt.
			Method:				EPA 7470A
			Units:				mg/L
Project: CG Roxane / SB0794						Pa	ige 1 of 2
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	16-09-0590-1-O	09/07/16 12:31	Aqueous	Mercury 05	09/14/16	09/14/16 20:03	160914LA2F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-09-090716	16-09-0590-3-O	09/07/16 13:50	Aqueous	Mercury 05	09/14/16	09/14/16 19:39	160914LA2F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-08-090716	16-09-0590-4-O	09/07/16 14:58	Aqueous	Mercury 05	09/14/16	09/14/16 19:33	160914LA2F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
QCEB-03-090716	16-09-0590-5-O	09/07/16 16:00	Aqueous	Mercury 05	09/14/16	09/14/16 19:42	160914LA2F
<u>Parameter</u>		Result	RL	•	DF	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-11-090816	16-09-0590-6-O	09/08/16 08:27	Aqueous	Mercury 05	09/14/16	09/14/16 19:44	160914LA2F
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-05-090816	16-09-0590-7-O	09/08/16 09:45	Aqueous	Mercury 05	09/14/16	09/14/16 19:46	160914LA2F
Parameter		Result	RL	:	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-04-090816	16-09-0590-8-O	09/08/16 10:55	Aqueous	Mercury 05	09/14/16	09/14/16 19:48	160914LA2F
<u>Parameter</u>		Result	RL	1	<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	000500	1.00		
MW-04-090816-DUP	16-09-0590-9-O	09/08/16 10:55	Aqueous	Mercury 05	09/14/16	09/14/16 20:01	160914LA2F
<u>Parameter</u>		Result	RL	:	DF	Qua	alifiers
Mercury		ND	0.0	000500	1.00		



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0590
Santa Barbara, CA 93101-2177
Preparation:
Method:
Units:
mg/L

Project: CG Roxane / SB0794 Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-763-823	N/A	Aqueous	Mercury 05	09/14/16	09/14/16 19:28	160914LA2F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Mercury		ND	0.0	000500	1.00		





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0590 EPA 3510C EPA 8270C

09/09/16

ug/L

Units:

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Project: CG Roxane / SB0794

QC Batch ID Lab Sample Date/Time Client Sample Number Date/Time Matrix Instrument Date Prepared Number Collected Analyzed 09/07/16 12:31 09/13/16 13:20 MW-13-090716 16-09-0590-1-K Aqueous **GC/MS CCC** 09/12/16 160912L01 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers Acenaphthene ND 9.6 1.00 ND Acenaphthylene 9.6 1.00 ND Aniline 9.6 1.00 Anthracene ND 1.00 9.6 Azobenzene ND 9.6 1.00 Benzidine ND 48 1.00 Benzo (a) Anthracene ND 9.6 1.00 Benzo (a) Pyrene ND 9.6 1.00 Benzo (b) Fluoranthene ND 9.6 1.00 Benzo (g,h,i) Perylene ND 9.6 1.00 Benzo (k) Fluoranthene ND 9.6 1.00 Benzoic Acid ND 48 1.00 Benzyl Alcohol ND 9.6 1.00 Bis(2-Chloroethoxy) Methane ND 9.6 1.00 Bis(2-Chloroethyl) Ether ND 24 1.00 ND Bis(2-Chloroisopropyl) Ether 9.6 1.00 Bis(2-Ethylhexyl) Phthalate ND 9.6 1.00 4-Bromophenyl-Phenyl Ether ND 9.6 1.00 Butyl Benzyl Phthalate ND 1.00 9.6 4-Chloro-3-Methylphenol ND 9.6 1.00 4-Chloroaniline ND 9.6 1.00 2-Chloronaphthalene ND 9.6 1.00 2-Chlorophenol ND 9.6 1.00 4-Chlorophenyl-Phenyl Ether ND 9.6 1.00 Chrysene ND 9.6 1.00 2,6-Dichlorophenol ND 9.6 1.00 Di-n-Butyl Phthalate ND 9.6 1.00 Di-n-Octyl Phthalate ND 9.6 1.00 ND Dibenz (a,h) Anthracene 9.6 1.00 Dibenzofuran ND 9.6 1.00 1,2-Dichlorobenzene ND 9.6 1.00 ND 1.00 1,3-Dichlorobenzene 9.6 ND 9.6 1.00 1,4-Dichlorobenzene 3,3'-Dichlorobenzidine ND 24 1.00 2,4-Dichlorophenol ND 9.6 1.00

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
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				1 -191
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 27

<u>Surrogate</u>	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	69	20-110	
Nitrobenzene-d5	87	40-110	
p-Terphenyl-d14	89	50-135	
Phenol-d6	41	10-115	
2,4,6-Tribromophenol	99	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

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	Number	Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	16-09-0590-3-K	09/07/16 13:50	Aqueous	GC/MS CCC	09/12/16	09/13/16 13:38	160912L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>lifiers</u>
Acenaphthene		ND	9.8		1.00		
Acenaphthylene		ND	9.8		1.00		
Aniline		ND	9.8		1.00		
Anthracene		ND	9.8		1.00		
Azobenzene		ND	9.8		1.00		
Benzidine		ND	49		1.00		
Benzo (a) Anthracene		ND	9.8		1.00		
Benzo (a) Pyrene		ND	9.8		1.00		
Benzo (b) Fluoranthene		ND	9.8		1.00		
Benzo (g,h,i) Perylene		ND	9.8		1.00		
Benzo (k) Fluoranthene		ND	9.8		1.00		
Benzoic Acid		ND	49		1.00		
Benzyl Alcohol		ND	9.8		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.8		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.8		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.8		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.8		1.00		
Butyl Benzyl Phthalate		ND	9.8		1.00		
4-Chloro-3-Methylphenol		ND	9.8		1.00		
4-Chloroaniline		ND	9.8		1.00		
2-Chloronaphthalene		ND	9.8		1.00		
2-Chlorophenol		ND	9.8		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.8		1.00		
Chrysene		ND	9.8		1.00		
2,6-Dichlorophenol		ND	9.8		1.00		
Di-n-Butyl Phthalate		ND	9.8		1.00		
Di-n-Octyl Phthalate		ND	9.8		1.00		
Dibenz (a,h) Anthracene		ND	9.8		1.00		
Dibenzofuran		ND	9.8		1.00		
1,2-Dichlorobenzene		ND	9.8		1.00		
1,3-Dichlorobenzene		ND	9.8		1.00		
1,4-Dichlorobenzene		ND	9.8		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	9.8		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 5 of 27

Troject: OG Noxarie / OBOTO+				1 age 0 01 21
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.8	1.00	
Dimethyl Phthalate	ND	9.8	1.00	
2,4-Dimethylphenol	ND	9.8	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.8	1.00	
2,6-Dinitrotoluene	ND	9.8	1.00	
Fluoranthene	ND	9.8	1.00	
Fluorene	ND	9.8	1.00	
Hexachloro-1,3-Butadiene	ND	9.8	1.00	
Hexachlorobenzene	ND	9.8	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	9.8	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.8	1.00	
Isophorone	ND	9.8	1.00	
2-Methylnaphthalene	ND	9.8	1.00	
1-Methylnaphthalene	ND	9.8	1.00	
2-Methylphenol	ND	9.8	1.00	
3/4-Methylphenol	ND	9.8	1.00	
N-Nitroso-di-n-propylamine	ND	9.8	1.00	
N-Nitrosodimethylamine	ND	9.8	1.00	
N-Nitrosodiphenylamine	ND	9.8	1.00	
Naphthalene	ND	9.8	1.00	
4-Nitroaniline	ND	9.8	1.00	
3-Nitroaniline	ND	9.8	1.00	
2-Nitroaniline	ND	9.8	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	9.8	1.00	
2-Nitrophenol	ND	9.8	1.00	
Pentachlorophenol	ND	9.8	1.00	
Phenanthrene	ND	9.8	1.00	
Phenol	ND	9.8	1.00	
Pyrene	ND	9.8	1.00	
Pyridine	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	9.8	1.00	
2,4,6-Trichlorophenol	ND	9.8	1.00	
2,4,5-Trichlorophenol	ND	9.8	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 27

Rec. (%)	Control Limits	<b>Qualifiers</b>
54	50-110	
52	20-110	
69	40-110	
71	50-135	
31	10-115	
79	40-125	
	54 52 69 71 31	54 50-110 52 20-110 69 40-110 71 50-135 31 10-115



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3510C EPA 8270C

09/09/16

ug/L

u Page 7 of 27

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	16-09-0590-4-K	09/07/16 14:58	Aqueous	GC/MS CCC	09/12/16	09/13/16 13:57	160912L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	9.6		1.00		
Acenaphthylene		ND	9.6		1.00		
Aniline		ND	9.6		1.00		
Anthracene		ND	9.6		1.00		
Azobenzene		ND	9.6		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzo (k) Fluoranthene		ND	9.6		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol		ND	9.6		1.00		
4-Chloroaniline		ND	9.6		1.00		
2-Chloronaphthalene		ND	9.6		1.00		
2-Chlorophenol		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Chrysene		ND	9.6		1.00		
2,6-Dichlorophenol		ND	9.6		1.00		
Di-n-Butyl Phthalate		ND	9.6		1.00		
Di-n-Octyl Phthalate		ND	9.6		1.00		
Dibenz (a,h) Anthracene		ND	9.6		1.00		
Dibenzofuran		ND	9.6		1.00		
1,2-Dichlorobenzene		ND	9.6		1.00		
1,3-Dichlorobenzene		ND	9.6		1.00		
1,4-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.6		1.00		

RL: Reporting Limit. DF: D

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

Project: CG Roxane / SB0794 Page 8 of 27

Flojeci. CG Roxalle / 350794				rage 8 01 21
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	62	50-110	
2-Fluorophenol	64	20-110	
Nitrobenzene-d5	85	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	38	10-115	
2,4,6-Tribromophenol	100	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 3510C EPA 8270C ug/L

Units:

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	16-09-0590-5-K	09/07/16 16:00	Aqueous	GC/MS CCC	09/12/16	09/13/16 14:15	160912L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acenaphthene		ND	9.5		1.00		
Acenaphthylene		ND	9.5		1.00		
Aniline		ND	9.5		1.00		
Anthracene		ND	9.5		1.00		
Azobenzene		ND	9.5		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (a) Pyrene		ND	9.5		1.00		
Benzo (b) Fluoranthene		ND	9.5		1.00		
Benzo (g,h,i) Perylene		ND	9.5		1.00		
Benzo (k) Fluoranthene		ND	9.5		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.5		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
Butyl Benzyl Phthalate		ND	9.5		1.00		
4-Chloro-3-Methylphenol		ND	9.5		1.00		
4-Chloroaniline		ND	9.5		1.00		
2-Chloronaphthalene		ND	9.5		1.00		
2-Chlorophenol		ND	9.5		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Chrysene		ND	9.5		1.00		
2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Butyl Phthalate		ND	9.5		1.00		
Di-n-Octyl Phthalate		ND	9.5		1.00		
Dibenz (a,h) Anthracene		ND	9.5		1.00		
Dibenzofuran		ND	9.5		1.00		
1,2-Dichlorobenzene		ND	9.5		1.00		
1,3-Dichlorobenzene		ND	9.5		1.00		
1,4-Dichlorobenzene		ND	9.5		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 11 of 27

Project: CG Roxane / SB0794				Page 11 of 27
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 12 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	50-110	
2-Fluorophenol	64	20-110	
Nitrobenzene-d5	88	40-110	
p-Terphenyl-d14	90	50-135	
Phenol-d6	39	10-115	
2,4,6-Tribromophenol	100	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 3510C EPA 8270C ug/L

09/09/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	16-09-0590-6-K	09/08/16 08:27	Aqueous	GC/MS CCC	09/12/16	09/13/16 14:33	160912L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	lifiers
Acenaphthene		ND	9.5		1.00		
Acenaphthylene		ND	9.5		1.00		
Aniline		ND	9.5		1.00		
Anthracene		ND	9.5		1.00		
Azobenzene		ND	9.5		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (a) Pyrene		ND	9.5		1.00		
Benzo (b) Fluoranthene		ND	9.5		1.00		
Benzo (g,h,i) Perylene		ND	9.5		1.00		
Benzo (k) Fluoranthene		ND	9.5		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.5		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
Butyl Benzyl Phthalate		ND	9.5		1.00		
4-Chloro-3-Methylphenol		ND	9.5		1.00		
4-Chloroaniline		ND	9.5		1.00		
2-Chloronaphthalene		ND	9.5		1.00		
2-Chlorophenol		ND	9.5		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Chrysene		ND	9.5		1.00		
2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Butyl Phthalate		ND	9.5		1.00		
Di-n-Octyl Phthalate		ND	9.5		1.00		
Dibenz (a,h) Anthracene		ND	9.5		1.00		
Dibenzofuran		ND	9.5		1.00		
1,2-Dichlorobenzene		ND	9.5		1.00		
1,3-Dichlorobenzene		ND	9.5		1.00		
1,4-Dichlorobenzene		ND	9.5		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0590

Preparation:
EPA 3510C
Method:
Units:
ug/L

Project: CG Roxane / SB0794 Page 14 of 27 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers Diethyl Phthalate ND 1.00 9.5 Dimethyl Phthalate ND 9.5 1.00 2,4-Dimethylphenol ND 9.5 1.00 4,6-Dinitro-2-Methylphenol ND 48 1.00 2,4-Dinitrophenol ND 48 1.00 2,4-Dinitrotoluene ND 9.5 1.00 2,6-Dinitrotoluene ND 9.5 1.00 Fluoranthene ND 9.5 1.00 Fluorene ND 9.5 1.00 Hexachloro-1,3-Butadiene ND 9.5 1.00 Hexachlorobenzene ND 9.5 1.00 Hexachlorocyclopentadiene ND 24 1.00 Hexachloroethane ND 9.5 1.00 Indeno (1,2,3-c,d) Pyrene ND 9.5 1.00 ND 9.5 1.00 Isophorone 2-Methylnaphthalene ND 9.5 1.00 1-Methylnaphthalene ND 9.5 1.00 2-Methylphenol ND 9.5 1.00 3/4-Methylphenol ND 9.5 1.00 N-Nitroso-di-n-propylamine ND 9.5 1.00 N-Nitrosodimethylamine ND 9.5 1.00 N-Nitrosodiphenylamine ND 9.5 1.00 Naphthalene ND 9.5 1.00 4-Nitroaniline ND 9.5 1.00 3-Nitroaniline ND 9.5 1.00 2-Nitroaniline ND 1.00 9.5 Nitrobenzene ND 24 1.00 ND 4-Nitrophenol 9.5 1.00 2-Nitrophenol ND 9.5 1.00 Pentachlorophenol ND 9.5 1.00 Phenanthrene ND 9.5 1.00 Phenol ND 9.5 1.00 Pyrene ND 9.5 1.00 Pyridine ND 9.5 1.00 1,2,4-Trichlorobenzene ND 9.5 1.00 2,4,6-Trichlorophenol ND 1.00 9.5 2,4,5-Trichlorophenol ND 9.5 1.00



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 15 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	62	50-110	
2-Fluorophenol	54	20-110	
Nitrobenzene-d5	80	40-110	
p-Terphenyl-d14	79	50-135	
Phenol-d6	32	10-115	
2,4,6-Tribromophenol	90	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

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Parameter   Result	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Accenaphthene         ND         9.5         1.00           Accenaphthylene         ND         9.5         1.00           Anthracene         ND         9.5         1.00           Anthracene         ND         9.5         1.00           Azobenzene         ND         9.5         1.00           Benzo (a) Anthracene         ND         9.5         1.00           Benzo (a) Pyrene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (k) Fluoranthene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (c) Acid         ND         9.5 </th <th>MW-05-090816</th> <th>16-09-0590-7-K</th> <th></th> <th>Aqueous</th> <th>GC/MS CCC</th> <th>09/12/16</th> <th>09/13/16 14:51</th> <th>160912L01</th>	MW-05-090816	16-09-0590-7-K		Aqueous	GC/MS CCC	09/12/16	09/13/16 14:51	160912L01
Acenaphthylene ND 9.5 1.00 Anilline ND 9.5 1.00 Anilline ND 9.5 1.00 Anilline ND 9.5 1.00 Arcobenzene ND 9.5 1.00 Arcobenzene ND 9.5 1.00 Benzo (a) Anthracene ND 9.5 1.00 Benzo (a) Anthracene ND 9.5 1.00 Benzo (a) Pryene ND 9.5 1.00 Benzo (a) Pryene ND 9.5 1.00 Benzo (a) Fluoranthene ND 9.5 1.00	<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>llifiers</u>
Aniline ND 9.5 1.00 Anthracene ND 9.5 1.00 Anthracene ND 9.5 1.00 Anthracene ND 9.5 1.00 Benzolar ND 48 1.00 Benzolar ND 9.5 1.00 Benzo	Acenaphthene		ND	9.5		1.00		
Anthracene ND 9.5 1.00 Azobenzene ND 9.5 1.00 Benzo (a) Anthracene ND 9.5 1.00 Benzo (a) Anthracene ND 9.5 1.00 Benzo (a) Anthracene ND 9.5 1.00 Benzo (a) Pyrene ND 9.5 1.00 Benzo (a) Pyrene ND 9.5 1.00 Benzo (b) Fluoranthene ND 9.5 1.00 Benzo (b) Fluoranthene ND 9.5 1.00 Benzo (c), i) Perylene ND 9.5 1.00 Benzo (c), ii) Perylene ND 9.5 1.00 Benzo (c), iii) Perylene ND 9.5 1.00 Butyl Benzyl Phthalate ND 9.5 1.00 Butyl Phthala	Acenaphthylene		ND	9.5		1.00		
Azobenzene         ND         9.5         1.00           Benzidine         ND         48         1.00           Benzo (a) Anthracene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (c) Ai,i) Perylene         ND         9.5         1.00           Benzo (c) Aid         ND         9.5         1.00           Benzo (c) Acid         ND         48         1.00           Benzo (c) Acid         ND         48         1.00           Benzo (c) Acid         ND         9.5         1.00           Benzo (c) Acid         ND         48         1.00           Benzo (c) Acid         ND         9.5         1.00           Bis(2-Chlorostowy) Methane         ND         9.5         1.00           Bis(2-Chlorostowy) Methane         ND         9.5         1.00           Bis(2-Chlorostowy) Phenyl Ether	Aniline		ND	9.5		1.00		
Benzidine         ND         48         1.00           Benzo (a) Anthracene         ND         9.5         1.00           Benzo (b) Fluoranthene         ND         9.5         1.00           Benzo (g,h,i) Perylene         ND         9.5         1.00           Benzoic Acid         ND         9.5         1.00           Benzoic Acid         ND         9.5         1.00           Benzoir Divisiogropolyl Ether         ND         9.5         1.00           Bis(2-Chloroeibropoly) Pithalate         ND         9.5         1.00           4-Bromophenyl-Phenyl Ether         ND         9.5         1.00           4-Chloroaphthalene         ND         9.5         1.00 <t< td=""><td>Anthracene</td><td></td><td>ND</td><td>9.5</td><td></td><td>1.00</td><td></td><td></td></t<>	Anthracene		ND	9.5		1.00		
Senzo (a) Anthracene   ND   9.5   1.00	Azobenzene		ND	9.5		1.00		
Senzo (a) Pyrene   ND   9.5   1.00	Benzidine		ND	48		1.00		
Senzo (b) Fluoranthene   ND   9.5   1.00	Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (g,h,i) Perylene         ND         9.5         1.00           Benzo (k) Fluoranthene         ND         9.5         1.00           Benzo (Acid         ND         48         1.00           Benzyl Alcohol         ND         9.5         1.00           Bis(2-Chloroethoxy) Methane         ND         9.5         1.00           Bis(2-Chloroethyl) Ether         ND         9.5         1.00           Bis(2-Chloroispropyl) Ether         ND         9.5         1.00           Bis(2-Chloroispropyl) Ether         ND         9.5         1.00           Bis(2-Chloroispropyl) Ether         ND         9.5         1.00           Barryl Menzyl Pthalate         ND         9.5         1.00           Barryl Pthalate         ND         9.5         1.00           4-Chloro-3-Methylphenol         ND         9.5         1.00           4-Chloroaniline         ND         9.5         1.00           2-Chloroaphthalene         ND         9.5         1.00           2-Chlorophenol         ND         9.5         1.00           4-Chlorophenyl-Phenyl Ether         ND         9.5         1.00           2-Chlorophenol         ND         9.5         1.00 </td <td>Benzo (a) Pyrene</td> <td></td> <td>ND</td> <td>9.5</td> <td></td> <td>1.00</td> <td></td> <td></td>	Benzo (a) Pyrene		ND	9.5		1.00		
Senzo (k) Fluoranthene   ND   9.5   1.00	Benzo (b) Fluoranthene		ND	9.5		1.00		
Senzoic Acid   ND   48   1.00   3.5   1.00   3.5   3	Benzo (g,h,i) Perylene		ND	9.5		1.00		
Senzyl Alcohol   ND   9.5   1.00	Benzo (k) Fluoranthene		ND	9.5		1.00		
Sis(2-Chloroethoxy) Methane   ND   9.5   1.00	Benzoic Acid		ND	48		1.00		
Sis(2-Chloroethyl)   Ether   ND   24   1.00	Benzyl Alcohol		ND	9.5		1.00		
Sis(2-Chloroisopropyl)   Ether   ND   9.5   1.00	Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Sis   2-Ethylhexyl)   Phthalate   ND   9.5   1.00	Bis(2-Chloroethyl) Ether		ND	24		1.00		
### ### ### ### ### ### ### ### ### ##	Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Sutyl Benzyl Phthalate   ND   9.5   1.00   4-Chloro-3-Methylphenol   ND   9.5   1.00   4-Chloro-3-Methylphenol   ND   9.5   1.00   4-Chloroantiline   ND   9.5   1.00   4-Chloroanthtalene   ND   9.5   1.00   4-Chlorophenol   ND   9.5   1.00   4-Chlorophenol   ND   9.5   1.00   4-Chlorophenyl-Phenyl Ether   ND   9.5   1.00   4-Chlorophenol   ND   4-Chlo	Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
A-Chloro-3-Methylphenol A-Chloro-3-Methylphenol ND 9.5 1.00 A-Chloroaphthalene ND 9.5 1.00 A-Chlorophenol ND 9.5 1.00 A-Chlorophenol ND 9.5 1.00 A-Chlorophenyl-Phenyl Ether ND 9.5 1.00 Chrysene ND 9.5 1.00 Chrysene ND 9.5 1.00 Di-n-Butyl Phthalate ND 9.5 1.00 Di-n-Octyl Phthalate ND 9.5 1.00 Dibenz (a,h) Anthracene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzidine	4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
A-Chloroaniline A-Chloroaphthalene ND 9.5 1.00 2-Chlorophenol ND 9.5 1.00 4-Chlorophenyl-Phenyl Ether ND 9.5 1.00 Chrysene ND 9.5 1.00 Chrysene ND 9.5 1.00 Chrysene ND 9.5 1.00 Chrysene ND 0-in-Butyl Phthalate ND 9.5 1.00 Chr-Cytyl Phthalate ND 9.5 1.00 Chien-Cytyl Phthalate ND 0-in-Octyl Phthalate ND 9.5 1.00 Chienzofuran ND 9.5 1.00 Chienzofuran ND 9.5 1.00 1,2-Dichlorobenzene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00	Butyl Benzyl Phthalate		ND	9.5		1.00		
ND   9.5   1.00	4-Chloro-3-Methylphenol		ND	9.5		1.00		
2-Chlorophenol       ND       9.5       1.00         4-Chlorophenyl-Phenyl Ether       ND       9.5       1.00         Chrysene       ND       9.5       1.00         2,6-Dichlorophenol       ND       9.5       1.00         Di-n-Butyl Phthalate       ND       9.5       1.00         Di-n-Octyl Phthalate       ND       9.5       1.00         Dibenz (a,h) Anthracene       ND       9.5       1.00         Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	4-Chloroaniline		ND	9.5		1.00		
A-Chlorophenyl-Phenyl Ether  ND 9.5 1.00 Chrysene ND 9.5 1.00 2,6-Dichlorophenol ND 0i-n-Butyl Phthalate ND 0i-n-Octyl Phthalate ND 0ibenz (a,h) Anthracene ND 0ibenzofuran ND 0i,2-Dichlorobenzene ND 0i,3-Dichlorobenzene ND 9.5 1.00 1.3-Dichlorobenzene ND 9.5 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	2-Chloronaphthalene		ND	9.5		1.00		
Chrysene       ND       9.5       1.00         2,6-Dichlorophenol       ND       9.5       1.00         Di-n-Butyl Phthalate       ND       9.5       1.00         Di-n-Octyl Phthalate       ND       9.5       1.00         Dibenz (a,h) Anthracene       ND       9.5       1.00         Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	2-Chlorophenol		ND	9.5		1.00		
2,6-Dichlorophenol ND 9.5 1.00 Di-n-Butyl Phthalate ND 9.5 1.00 Di-n-Octyl Phthalate ND 9.5 1.00 Dibenz (a,h) Anthracene ND 9.5 1.00 Dibenzofuran ND 9.5 1.00 1,2-Dichlorobenzene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,3-Dichlorobenzene ND 9.5 1.00 1,4-Dichlorobenzene ND 9.5 1.00	4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Di-n-Butyl Phthalate       ND       9.5       1.00         Di-n-Octyl Phthalate       ND       9.5       1.00         Dibenz (a,h) Anthracene       ND       9.5       1.00         Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzidine       ND       24       1.00	Chrysene		ND	9.5		1.00		
Di-n-Octyl Phthalate       ND       9.5       1.00         Dibenz (a,h) Anthracene       ND       9.5       1.00         Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzidine       ND       24       1.00	2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Octyl Phthalate       ND       9.5       1.00         Dibenz (a,h) Anthracene       ND       9.5       1.00         Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzidine       ND       24       1.00	Di-n-Butyl Phthalate		ND	9.5		1.00		
Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Di-n-Octyl Phthalate		ND			1.00		
Dibenzofuran       ND       9.5       1.00         1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Dibenz (a,h) Anthracene		ND	9.5		1.00		
1,2-Dichlorobenzene       ND       9.5       1.00         1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	Dibenzofuran					1.00		
1,3-Dichlorobenzene       ND       9.5       1.00         1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	1,2-Dichlorobenzene		ND					
1,4-Dichlorobenzene       ND       9.5       1.00         3,3'-Dichlorobenzidine       ND       24       1.00	1,3-Dichlorobenzene							
3,3'-Dichlorobenzidine ND 24 1.00	1,4-Dichlorobenzene							
	3,3'-Dichlorobenzidine							
	2,4-Dichlorophenol		ND	9.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 17 of 27

Project: CG Roxane / SB0794				Page 17 of 27
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 18 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	50-110	
2-Fluorophenol	61	20-110	
Nitrobenzene-d5	86	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	98	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0590 EPA 3510C EPA 8270C

09/09/16

ug/L

Units:

Page 19 of 27

Project: CG Roxane / SB0794

QC Batch ID Lab Sample Date/Time Client Sample Number Date/Time Matrix Instrument Date Prepared Number Collected Analyzed 09/08/16 10:55 09/13/16 15:10 MW-04-090816 16-09-0590-8-K Aqueous GC/MS CCC 09/12/16 160912L01 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND Acenaphthene 9.6 1.00 ND 1.00 Acenaphthylene 9.6 ND Aniline 9.6 1.00 Anthracene ND 1.00 9.6 Azobenzene ND 9.6 1.00 Benzidine ND 48 1.00 Benzo (a) Anthracene ND 9.6 1.00 Benzo (a) Pyrene ND 9.6 1.00 Benzo (b) Fluoranthene ND 9.6 1.00 Benzo (g,h,i) Perylene ND 9.6 1.00 Benzo (k) Fluoranthene ND 9.6 1.00 Benzoic Acid ND 48 1.00 Benzyl Alcohol ND 9.6 1.00 Bis(2-Chloroethoxy) Methane ND 9.6 1.00 Bis(2-Chloroethyl) Ether ND 24 1.00 ND Bis(2-Chloroisopropyl) Ether 9.6 1.00 Bis(2-Ethylhexyl) Phthalate ND 9.6 1.00 4-Bromophenyl-Phenyl Ether ND 9.6 1.00 Butyl Benzyl Phthalate ND 1.00 9.6 4-Chloro-3-Methylphenol ND 9.6 1.00 4-Chloroaniline ND 9.6 1.00 2-Chloronaphthalene ND 9.6 1.00 2-Chlorophenol ND 9.6 1.00 4-Chlorophenyl-Phenyl Ether ND 9.6 1.00 Chrysene ND 9.6 1.00 2,6-Dichlorophenol ND 9.6 1.00 Di-n-Butyl Phthalate ND 9.6 1.00 Di-n-Octyl Phthalate ND 9.6 1.00 ND Dibenz (a,h) Anthracene 9.6 1.00 Dibenzofuran ND 9.6 1.00 1,2-Dichlorobenzene ND 9.6 1.00 ND 1.00 1,3-Dichlorobenzene 9.6 ND 9.6 1.00 1,4-Dichlorobenzene 3,3'-Dichlorobenzidine ND 24 1.00

RL: Reporting Limit.

2,4-Dichlorophenol

DF: Dilution Factor.

MDL: Method Detection Limit.

9.6

1.00

ND



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 20 of 27

Project. CG Roxane / SB0794				Fage 20 01 21
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 21 of 27

<u>Surrogate</u>	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	69	50-110	
2-Fluorophenol	63	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	95	50-135	
Phenol-d6	37	10-115	
2,4,6-Tribromophenol	100	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 3510C EPA 8270C

Units:

ug/L Page 22 of 27

Project: CG Roxane / SB0794

/Time OC Datab ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	16-09-0590-9-K	09/08/16 10:55	Aqueous	GC/MS CCC	09/12/16	09/13/16 15:28	160912L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.5		1.00		
Acenaphthylene		ND	9.5		1.00		
Aniline		ND	9.5		1.00		
Anthracene		ND	9.5		1.00		
Azobenzene		ND	9.5		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (a) Pyrene		ND	9.5		1.00		
Benzo (b) Fluoranthene		ND	9.5		1.00		
Benzo (g,h,i) Perylene		ND	9.5		1.00		
Benzo (k) Fluoranthene		ND	9.5		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.5		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
Butyl Benzyl Phthalate		ND	9.5		1.00		
4-Chloro-3-Methylphenol		ND	9.5		1.00		
4-Chloroaniline		ND	9.5		1.00		
2-Chloronaphthalene		ND	9.5		1.00		
2-Chlorophenol		ND	9.5		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Chrysene		ND	9.5		1.00		
2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Butyl Phthalate		ND	9.5		1.00		
Di-n-Octyl Phthalate		ND	9.5		1.00		
Dibenz (a,h) Anthracene		ND	9.5		1.00		
Dibenzofuran		ND	9.5		1.00		
1,2-Dichlorobenzene		ND	9.5		1.00		
1,3-Dichlorobenzene		ND	9.5		1.00		
1,4-Dichlorobenzene		ND	9.5		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.5		1.00		
•							

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 23 of 27

Project: CG Roxane / SB0794				Page 23 of 27
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 24 of 27

Surrogate	Rec. (%)	Control Limits	<b>Qualifiers</b>
2-Fluorobiphenyl	64	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	92	40-110	
p-Terphenyl-d14	93	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	97	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 3510C EPA 8270C

ug/L

Units:

Page 25 of 27

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-63	N/A	Aqueous	GC/MS CCC	09/12/16	09/12/16 12:40	160912L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>alifiers</u>
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 26 of 27

Project: CG Roxane / SB0794				Page 26 of 27
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 27 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 **EPA 5030C EPA 8260B** 

09/09/16

ug/L

Project: CG Roxane / SB0794

Page 1 of 20 QC Batch ID Lab Sample Client Sample Number Date/Time Matrix Instrument Date Date/Time Prepared Number Collected Analyzed 09/10/16 21:14 09/07/16 12:31 MW-13-090716 16-09-0590-1-A Aqueous **GC/MS XX** 09/10/16 160910L024 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 ND 1.0 1.00 Bromochloromethane Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

c-1,2-Dichloroethene

t-1,2-Dichloroethene

1,2-Dichloropropane 1,3-Dichloropropane

2,2-Dichloropropane

1.0

1.0

1.0

1.0

1.0

1.00

1.00

1.00

1.00

1.00

ND

ND

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 20

Project: CG Roxane / SB0794				Page 2 of 20
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	80-120		
Dibromofluoromethane	92	78-126		
1,2-Dichloroethane-d4	102	75-135		
Toluene-d8	99	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 5030C EPA 8260B

ug/L

u Page 3 of 20

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-03-090716	16-09-0590-2-B	09/07/16 00:00	Aqueous	GC/MS XX	09/10/16	09/10/16 18:26	160910L024
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	lifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		

RL: Reporting Limit.

1,2-Dichloropropane1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.0

1.0

1.00

1.00

1.00

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 4 of 20

Project: CG Roxane / SB0794				Page 4 of 20
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	94	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 5030C EPA 8260B ug/L

Units:

Project: CG Roxane / SB0794

Page 5 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	16-09-0590-3-A	09/07/16 13:50	Aqueous	GC/MS XX	09/10/16	09/10/16 22:10	160910L024
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 6 of 20

Project: CG Roxane / SB0794				Page 6 of 20
Parameter	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
<u>Surrogate</u>	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	99	78-126		
1,2-Dichloroethane-d4	104	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 5030C EPA 8260B

09/09/16

ug/L

Project: CG Roxane / SB0794

Page 7 of 20

MW-08-090716         16-09-0590-4-A         09/07/16 14:58         Aqueous 14:58         GC/MS XX         09/10/16 19:22         160910L02           Parameter Acetone         Result ND         RL         DE         Qualifiers           Acetone         ND         0.50         1.00           Benzene         ND         1.0         1.00           Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         1.0         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acetone       ND       20       1.00         Benzene       ND       0.50       1.00         Bromobenzene       ND       1.0       1.00         Bromochloromethane       ND       1.0       1.00         Bromoform       ND       1.0       1.00         Bromomethane       ND       10       1.00         2-Butanone       ND       10       1.00         n-Butylbenzene       ND       1.0       1.00         sec-Butylbenzene       ND       1.0       1.00         tert-Butylbenzene       ND       1.0       1.00         Carbon Disulfide       ND       10       1.00         Carbon Tetrachloride       ND       0.50       1.00	MW-08-090716	16-09-0590-4-A		Aqueous	GC/MS XX	09/10/16	09/10/16 19:22	160910L024
Benzene         ND         0.50         1.00           Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         1.0         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         1.0         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Acetone		ND	20		1.00		
Bromochloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Benzene		ND	0.5	50	1.00		
Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Bromobenzene		ND	1.0	)	1.00		
Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Bromochloromethane		ND	1.0	)	1.00		
Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Bromodichloromethane		ND	1.0	)	1.00		
2-Butanone       ND       10       1.00         n-Butylbenzene       ND       1.0       1.00         sec-Butylbenzene       ND       1.0       1.00         tert-Butylbenzene       ND       1.0       1.00         Carbon Disulfide       ND       10       1.00         Carbon Tetrachloride       ND       0.50       1.00	Bromoform		ND	1.0	)	1.00		
n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	Bromomethane		ND	10		1.00		
sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00	2-Butanone		ND	10		1.00		
tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00	n-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00	sec-Butylbenzene		ND	1.0	)	1.00		
Carbon Tetrachloride ND 0.50 1.00	tert-Butylbenzene		ND	1.0	)	1.00		
	Carbon Disulfide		ND	10		1.00		
Chlorobenzene ND 1.0 1.00	Carbon Tetrachloride		ND	0.5	50	1.00		
	Chlorobenzene		ND	1.0	)	1.00		
Chloroethane ND 5.0 1.00	Chloroethane		ND	5.0	)	1.00		
Chloroform ND 1.0 1.00	Chloroform		ND	1.0	)	1.00		
Chloromethane ND 10 1.00	Chloromethane		ND	10		1.00		
2-Chlorotoluene ND 1.0 1.00	2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene ND 1.0 1.00	4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane ND 1.0 1.00	Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane ND 5.0 1.00	1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane ND 1.0 1.00	1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane ND 1.0 1.00	Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene ND 1.0 1.00	1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene ND 1.0 1.00	1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene ND 1.0 1.00	1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane ND 1.0 1.00	Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane ND 1.0 1.00	1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane ND 0.50 1.00	1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene ND 1.0 1.00	1,1-Dichloroethene					1.00		
c-1,2-Dichloroethene ND 1.0 1.00	c-1,2-Dichloroethene		ND			1.00		
t-1,2-Dichloroethene ND 1.0 1.00	t-1,2-Dichloroethene					1.00		
1,2-Dichloropropane ND 1.0 1.00	·		ND					
1,3-Dichloropropane ND 1.0 1.00								
2,2-Dichloropropane ND 1.0 1.00	2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 8 of 20

Project: CG Roxane / SB0794				Page 8 of 20
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
<u>Surrogate</u>	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	99	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	99	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 5030C EPA 8260B

Page 9 of 20

ug/L

Units:

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	16-09-0590-5-A	09/07/16 16:00	Aqueous	GC/MS XX	09/10/16	09/10/16 18:54	160910L024
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: CG Roxane / SB0794 Page 10 of 20

Project: CG Roxane / SB0794				Page 10 of 20
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	80-120		
Dibromofluoromethane	96	78-126		
1,2-Dichloroethane-d4	104	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 5030C EPA 8260B

09/09/16

ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	16-09-0590-6-A	09/08/16 08:27	Aqueous	GC/MS XX	09/10/16	09/10/16 21:42	160910L024
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	60	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	60	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5	60	1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
		IND	1.0	'	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 12 of 20

			Fage 12 01 20
Result	<u>RL</u>	<u>DF</u>	Qualifiers
ND	1.0	1.00	
ND	0.50	1.00	
ND	0.50	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	10	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	5.0	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	0.50	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
Rec. (%)	Control Limits	Qualifiers	
95	80-120		
100	78-126		
104	75-135		
98	80-120		
	ND N	ND 1.0 ND 0.50 ND 0.50 ND 1.0 ND 1.0 ND 10 ND 1.0 ND 10 ND 10 ND 10 ND 10 ND 10 ND 10 ND 1.0	ND 1.0 1.00 1.00 ND 0.50 1.00 ND 0.50 1.00 ND



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0590 EPA 5030C EPA 8260B ug/L

09/09/16

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	16-09-0590-7-A	09/08/16 09:45	Aqueous	GC/MS XX	09/10/16	09/10/16 19:50	160910L024
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 14 of 20

Troject: Oo Roxane / Oboro+				1 age 14 01 20
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	99	78-126		
1,2-Dichloroethane-d4	102	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	16-09-0590-8-A	09/08/16 10:55	Aqueous	GC/MS XX	09/10/16	09/10/16 20:18	160910L024
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0		1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 16 of 20

Project: CG Roxane / SB0/94				Page 16 of 20
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	80-120		
Dibromofluoromethane	98	78-126		
1,2-Dichloroethane-d4	103	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 5030C EPA 8260B ug/L

Project: CG Roxane / SB0794

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	16-09-0590-9-A	09/08/16 10:55	Aqueous	GC/MS XX	09/10/16	09/10/16 20:46	160910L024
Parameter		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 18 of 20

			rage 10 01 20
Result	<u>RL</u>	<u>DF</u>	Qualifiers
ND	1.0	1.00	
ND	0.50	1.00	
ND	0.50	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	10	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	5.0	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	10	1.00	
ND	0.50	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
ND	1.0	1.00	
Rec. (%)	Control Limits	Qualifiers	
100	78-126		
104	75-135		
99	80-120		
	ND N	ND 1.0 ND 0.50 ND 0.50 ND 1.0 ND 10 ND 1.0 ND	ND



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0590 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane / SB0794

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Parameter	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acetone         ND         20         1,00           Benzene         ND         0,50         1,00           Bromochloromethane         ND         1,0         1,00           Bee-Butylbenzene         ND         1,0         1,00           Bee-Butylbenzene         ND         1,0         1,00           Bee-Butylbenzene         ND         1,0         1,00           Bromochloromethane         ND         1,0         1,00           Bromochloromethane         ND         1,0         1,00           Chloroferbane         ND         1,0         1,00           Chloroforomethane         ND         1,0         1,00           Chloroforobloromethane         ND	Method Blank	099-14-316-2965	N/A	Aqueous	GC/MS XX	09/10/16	09/10/16 15:07	160910L024
Serizane   ND   0.50   1.00	<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Stromobenzene   ND	Acetone		ND	20		1.00		
Bromochloromethane         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           9-Butylbenzene         ND         1.0         1.00           seer-Butylbenzene         ND         1.0         1.00           eart-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Disulfide         ND         0.50         1.00           Chlorotelhane         ND         1.0         1.00 </td <td>Benzene</td> <td></td> <td>ND</td> <td>0.5</td> <td>50</td> <td>1.00</td> <td></td> <td></td>	Benzene		ND	0.5	50	1.00		
Bromotichloromethane         ND         1.0         1.00           Bromomethane         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Eterachloride         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chloroberzene         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           Chloroforpopane         ND         1.0         1.00           L,2-Dibromo-3-Chloropropane         ND         1.0         1.00           L,2-Dibromo-4-Chloropropane         ND         1.0<	Bromobenzene		ND	1.0	)	1.00		
Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           3-Butylbenzene         ND         1.0         1.00           5ec-Butylbenzene         ND         1.0         1.00           6ert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Tistrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorothane         ND         1.0         1.00           L, 2-Dibriomoethane         ND         1.0         1.00	Bromochloromethane		ND	1.0	)	1.00		
Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           N-Butylbenzene         ND         1.0         1.00           seer-Butylbenzene         ND         1.0         1.00           cert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           L,2-Dibromoethane         ND         1.0         1.00           L,2-Dibromoethane         ND         1.0         1.00           L,2-Dichlorobenzene         ND         1.0         1.	Bromodichloromethane		ND	1.0	)	1.00		
ND   10   1.00	Bromoform		ND	1.0	)	1.00		
######################################	Bromomethane		ND	10		1.00		
ND   1.0   1.0	2-Butanone		ND	10		1.00		
ert-Buylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorodethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.	n-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chlorobluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotopropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorothane         ND         1.0         1.00           1,4-Dichlorothane         ND         1.0         1.00           1,2-Dichloroethene         ND         1.	sec-Butylbenzene		ND	1.0	)	1.00		
Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethene         <	tert-Butylbenzene		ND	1.0	)	1.00		
Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorothane         ND         1.0         1.00           1,1-Dichlorothane         ND <td>Carbon Disulfide</td> <td></td> <td>ND</td> <td>10</td> <td></td> <td>1.00</td> <td></td> <td></td>	Carbon Disulfide		ND	10		1.00		
Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromochloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloropropane <t< td=""><td>Carbon Tetrachloride</td><td></td><td>ND</td><td>0.5</td><td>50</td><td>1.00</td><td></td><td></td></t<>	Carbon Tetrachloride		ND	0.5	50	1.00		
Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dichlorobethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloroethene         ND         1.0         1.00           1,2-Dichloroethene         ND         1.0         1.00           1,2-Dichloroethen	Chlorobenzene		ND	1.0	)	1.00		
Chloromethane       ND       10       1.00         2-Chlorotoluene       ND       1.0       1.00         4-Chlorotoluene       ND       1.0       1.00         4-Chloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       1.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane	Chloroethane		ND	5.0	)	1.00		
ND   1.0   1.0	Chloroform		ND	1.0	)	1.00		
A-Chlorotoluene ND 1.0 1.0 1.00 Dibromochloromethane ND 1.0 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 1,1-Dichlorotethane ND 1.0 1.00 1,1-Dichlorotethane ND 1.0 1.00 1,1-Dichlorotethane ND 1.0 1.00 1,2-Dichlorotethane ND 1.0 1.00 1,2-Dichlorotethane ND 1.0 1.00 1,1-Dichlorotethane ND 1.0 1.00 1,2-Dichlorotethane ND 1.0 1.00 1,2-Dichlorotethane ND 1.0 1.00 1,3-Dichloropropane ND 1.0 1.00 1,3-Dichloropropane ND 1.0 1.00	Chloromethane		ND	10		1.00		
Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	2-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloroethene       ND       1.0       1.00         -1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	4-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dibromochloromethane		ND	1.0	)	1.00		
Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         2-1,2-Dichloroethene       ND       1.0       1.00         3-1,2-Dichloroethene       ND       1.0       1.00         4-1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dibromoethane		ND	1.0	)	1.00		
1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dibromomethane		ND	1.0	)	1.00		
1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         2-1,2-Dichloroethene       ND       1.0       1.00         1-,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         2-1,2-Dichloroethene       ND       1.0       1.00         3-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,4-Dichlorobenzene		ND	1.0	)	1.00		
1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,1-Dichloroethane		ND	1.0	)	1.00		
v-1,2-Dichloroethene       ND       1.0       1.00         v-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichloroethane		ND	0.5	50	1.00		
1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,1-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	c-1,2-Dichloroethene		ND	1.0	)	1.00		
1,3-Dichloropropane ND 1.0 1.00	t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,3-Dichloropropane ND 1.0 1.00	1,2-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane ND 1.0 1.00	1,3-Dichloropropane					1.00		
	2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
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Project: CG Roxane / SB0794				Page 20 of 20
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	94	80-120		
Dibromofluoromethane	94	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order:

09/09/16 16-09-0590

Project: CG Roxane / SB0794	Page 1 of 3

Client Sample Number	ent Sample Number Lab Sample Numb		Sample Number	Date/Time Collected			Matrix	
MW-13-090716			16-09-0590-1 09/07/16 12:31		Aqueous			
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	129	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	105	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	475	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.50	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.5	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00	BU	mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.56	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc
MW-09-090716			16-09-0590-3			09/07/16 13:50		Aqueous
Parameter	Results	RI	DF	Qualifiers	Units	Date	Date	Method

MW-09-090716		16-09-0590-3			09/07/16 13:50		Aqueous		
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method	
Alkalinity, Total (as CaCO3)	154	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	154	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	665	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C	
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B	
Phosphorus, Total	0.37	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	1.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	0.33	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00	BU	mg/L	09/09/16	09/09/16	SM 5540C	
Total Nitrogen	0.85	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc	

MW-08-090716			16-09-0590-4			09/07/16 14:58		Aqueous
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	112	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	112	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	175	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.19	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	0.60	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.45	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.56	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc



# **Analytical Report**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/09/16 16-09-0590

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Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
QCEB-03-090716			16-09	9-0590-5		09/07/1	6 16:00	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	DF	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-11-090816			16-09	9-0590-6		09/08/16	6 08:27	Aqueous	
Parameter	Results	<u>RL</u>	<u>DF</u>	Qualifiers	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method	
Alkalinity, Total (as CaCO3)	414	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Bicarbonate (as CaCO3)	414	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	1100	10.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C	
Total Kjeldahl Nitrogen	0.98	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B	
Phosphorus, Total	0.30	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	0.93	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	0.22	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C	
Total Nitrogen	0.98	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc	

MW-05-090816			16-09	9-0590-7		09/08/1	6 09:45	Aqueous
Parameter	Results	<u>RL</u>	DF	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	266	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	260	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	780	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.50	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.5	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.14	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



# **Analytical Report**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received:

09/09/16 16-09-0590

Work Order:

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Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
MW-04-090816			16-09	9-0590-8		09/08/10	6 10:55	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	DF	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	337	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	189	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	975	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.91	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.53	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.6	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.43	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.91	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-04-090816-DUP			16-09	9-0590-9		09/08/10	6 10:55	Aqueous
<u>Parameter</u>	<u>Results</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method
Alkalinity, Total (as CaCO3)	327	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	195	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	1050	10.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.53	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.6	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.38	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.84	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Method Blank						N/A		Aqueous
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

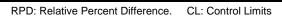
 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 300.0

 Project: CG Roxane / SB0794
 Page 1 of 10

Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Ana	llyzed	MS/MSD Ba	tch Number
MW-09-090716	Sample		Aqueou	s IC	10	N/A	09/10/16	02:03	160909S02	
MW-09-090716	Matrix Spike		Aqueou	s IC	10	N/A	09/10/16	05:16	160909S02	
MW-09-090716	Matrix Spike	Duplicate	Aqueou	s IC	10	N/A	09/10/16	05:35	160909S02	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20	
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3





Geosyntec Consultants Date Received: 09/09/16 Work Order: 16-09-0590 924 Anacapa Street, Suite 4A Preparation: Santa Barbara, CA 93101-2177 N/A Method: SM 4500 P B/E

Project: CG Roxane / SB0794 Page 2 of 10

Quality Control Sample ID	Type		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
MW-08-090716	Sample		Aqueous	UV	7	09/09/16	09/09/16	21:13	G0909TPS2	
MW-08-090716	Matrix Spike		Aqueous	UV	7	09/09/16	09/09/16	21:13	G0909TPS2	
MW-08-090716	Matrix Spike I	Duplicate	Aqueous	UV	7	09/09/16	09/09/16	21:13	G0909TPS2	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1948	0.4000	0.5761	95	0.5668	93	70-130	2	0-25	





Geosyntec Consultants Date Received: 09/09/16 16-09-0590 924 Anacapa Street, Suite 4A Work Order: Preparation: Santa Barbara, CA 93101-2177 N/A Method: SM 4500 P B/E Project: CG Roxane / SB0794 Page 3 of 10

Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
MW-08-090716	Sample		Aqueou	ıs UV	7	09/09/16	09/09/16	21:13	G090PO4S2	
MW-08-090716	Matrix Spike		Aqueou	ıs UV	7	09/09/16	09/09/16	21:13	G090PO4S2	!
MW-08-090716	Matrix Spike	Duplicate	Aqueou	ıs UV	7	09/09/16	09/09/16	21:13	G090PO4S2	1
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.5962	1.220	1.763	96	1.734	93	70-130	2	0-25	





 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500-NO3 E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
MW-05-090816	Sample		Aqueou	s U\	17	09/13/16	09/13/16	18:52	G0913NO3	S1
MW-05-090816	Matrix Spike		Aqueou	s U\	17	09/13/16	09/13/16	18:52	G0913NO3	§1
MW-05-090816	Matrix Spike	Duplicate	Aqueou	s U\	17	09/13/16	09/13/16	18:52	G0913NO3	S1
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.1375	0.5000	0.6208	97	0.6133	95	70-130	1	0-25	





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 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 5540C

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-09-0591-3	Sample		Aqueous	UV	8	09/09/16	09/09/16	14:38	G0909SURS	1
16-09-0591-3	Matrix Spike		Aqueous	. UV	8	09/09/16	09/09/16	14:38	G0909SURS	1
16-09-0591-3	Matrix Spike Duplicate		Aqueous	. UV	8	09/09/16	09/09/16	14:38	G0909SURS	1
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.073	107	1.035	103	70-130	4	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 N/A

EPA 200.7

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Quality Control Sample ID	Туре	Туре		In	strument	Date Prepared	Date Analyzed		MS/MSD Ba	tch Number
16-09-0748-1	Sample	Sample		ıs IC	P 7300	09/13/16	09/14/16	13:44	160913SA6	A
16-09-0748-1	Matrix Spike	Matrix Spike		us IC	P 7300	09/13/16	09/14/16	13:46	160913SA6	A
16-09-0748-1	Matrix Spike	Duplicate	Aqueou	us IC	P 7300	09/13/16	09/14/16	13:47	160913SA6	A
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
Calcium	148.8	0.5000	140.6	4X	140.7	4X	80-120	4X	0-20	Q
Magnesium	63.82	0.5000	61.54	4X	63.33	4X	80-120	4X	0-20	Q
Sodium	855.3	5.000	828.5	4X	838.1	4X	80-120	4X	0-20	Q



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0590 EPA 3005A Filt. EPA 6020

09/09/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
MW-13-090716	Sample		Aqueou	s IC	P/MS 03	09/14/16	09/14/16	19:49	160914SA1	
MW-13-090716	Matrix Spike		Aqueou	s IC	P/MS 03	09/14/16	09/14/16	19:39	160914SA1	
MW-13-090716	Matrix Spike I	Duplicate	Aqueou	s IC	P/MS 03	09/14/16	09/14/16	19:41	160914SA1	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1016	102	0.1084	108	85-133	7	0-11	
Arsenic	0.008756	0.1000	0.1079	99	0.1159	107	73-127	7	0-11	
Barium	0.003325	0.1000	0.1045	101	0.1058	102	74-128	1	0-10	
Beryllium	ND	0.1000	0.09122	91	0.09983	100	56-122	9	0-11	
Cadmium	ND	0.1000	0.09508	95	0.1013	101	84-114	6	0-8	
Chromium	ND	0.1000	0.1042	104	0.1120	112	73-133	7	0-11	
Cobalt	ND	0.1000	0.09191	92	0.09795	98	79-121	6	0-10	
Copper	ND	0.1000	0.08870	89	0.09516	95	72-108	7	0-10	
Lead	ND	0.1000	0.1073	107	0.1148	115	79-121	7	0-10	
Molybdenum	0.01113	0.1000	0.1233	112	0.1323	121	83-137	7	0-10	
Nickel	0.001250	0.1000	0.09252	91	0.09948	98	68-122	7	0-10	
Selenium	ND	0.1000	0.09075	91	0.09704	97	59-125	7	0-12	
Silver	ND	0.05000	0.05097	102	0.05106	102	68-128	0	0-14	
Thallium	ND	0.1000	0.1019	102	0.1098	110	73-121	7	0-11	
Vanadium	0.006589	0.1000	0.1036	97	0.1117	105	77-137	8	0-15	
Zinc	0.006424	0.1000	0.09971	93	0.09875	92	43-145	1	0-39	

RPD: Relative Percent Difference. CL: Control Limits



 Geosyntec Consultants
 Date Received:
 09/09/16

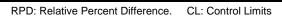
 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Type		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
MW-08-090716	Sample		Aqueous	s Mo	ercury 05	09/14/16	09/14/16	19:33	160914SA2	
MW-08-090716	Matrix Spike		Aqueous	s Mo	ercury 05	09/14/16	09/14/16	19:35	160914SA2	
MW-08-090716	Matrix Spike	Duplicate	Aqueous	s Mo	ercury 05	09/14/16	09/14/16	19:37	160914SA2	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01011	101	0.008803	8 88	55-133	14	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 5030C EPA 8260B

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Quality Control Sample ID	Туре		Matrix	lr	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0657-2	Sample		Aqueous	G	C/MS XX	09/10/16	09/10/16	16:03	160910S013	
16-09-0657-2	Matrix Spike		Aqueous	G	C/MS XX	09/10/16	09/10/16	16:34	160910S013	
16-09-0657-2	Matrix Spike	Duplicate	Aqueous	G	C/MS XX	09/10/16	09/10/16	17:02	160910S013	
<u>Parameter</u>	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	49.67	99	52.43	105	22-178	5	0-26	
Benzene	ND	50.00	52.36	105	52.75	105	70-130	1	0-20	
Bromobenzene	ND	50.00	54.41	109	54.24	108	70-130	0	0-20	
Bromochloromethane	ND	50.00	53.37	107	54.31	109	70-132	2	0-20	
Bromodichloromethane	ND	50.00	45.64	91	46.07	92	69-135	1	0-20	
Bromoform	ND	50.00	33.91	68	35.40	71	70-133	4	0-20	3
Bromomethane	ND	50.00	47.18	94	48.55	97	11-167	3	0-32	
2-Butanone	ND	50.00	50.06	100	50.83	102	39-159	2	0-21	
n-Butylbenzene	ND	50.00	54.87	110	54.80	110	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	53.63	107	53.50	107	70-143	0	0-24	
tert-Butylbenzene	ND	50.00	54.17	108	54.96	110	70-140	1	0-20	
Carbon Disulfide	ND	50.00	43.98	88	45.97	92	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	46.99	94	46.51	93	63-153	1	0-22	
Chlorobenzene	ND	50.00	53.60	107	53.44	107	70-130	0	0-20	
Chloroethane	ND	50.00	46.39	93	49.36	99	44-140	6	0-32	
Chloroform	ND	50.00	50.85	102	51.31	103	68-134	1	0-20	
Chloromethane	ND	50.00	43.35	87	48.29	97	20-158	11	0-40	
2-Chlorotoluene	ND	50.00	53.73	107	52.87	106	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	49.84	100	50.59	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.68	85	43.71	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	39.80	80	42.12	84	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	52.02	104	51.40	103	70-130	1	0-20	
Dibromomethane	ND	50.00	49.35	99	49.45	99	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.60	103	51.76	104	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.34	103	51.98	104	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.34	103	51.56	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	44.07	88	45.05	90	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	50.96	102	51.35	103	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	46.53	93	46.63	93	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	50.51	101	50.77	102	51-153	1	0-21	
c-1,2-Dichloroethene	ND	50.00	51.80	104	52.59	105	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	49.09	98	50.79	102	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	53.47	107	52.78	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	53.29	107	53.54	107	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	48.14	96	47.52	95	37-169	1	0-23	



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<u> </u>										
<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
1,1-Dichloropropene	ND	50.00	55.53	111	55.79	112	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	46.59	93	46.46	93	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.93	92	46.56	93	58-136	1	0-20	
Ethylbenzene	ND	50.00	53.80	108	53.79	108	70-134	0	0-24	
2-Hexanone	ND	50.00	50.73	101	53.67	107	59-149	6	0-20	
Isopropylbenzene	ND	50.00	55.27	111	54.33	109	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	54.20	108	54.25	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	50.37	101	50.95	102	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	52.80	106	54.41	109	67-139	3	0-20	
Naphthalene	ND	50.00	49.60	99	54.23	108	61-139	9	0-20	
n-Propylbenzene	ND	50.00	48.86	98	48.07	96	70-140	2	0-24	
Styrene	ND	50.00	54.49	109	54.14	108	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.37	99	49.42	99	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.61	105	54.21	108	70-137	3	0-20	
Tetrachloroethene	ND	50.00	47.31	95	46.13	92	33-147	3	0-30	
Toluene	ND	50.00	53.48	107	53.42	107	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	51.48	103	52.85	106	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.64	107	54.26	109	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	49.08	98	48.94	98	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	59.64	119	58.17	116	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.78	104	52.58	105	70-130	2	0-20	
Trichloroethene	ND	50.00	50.47	101	50.12	100	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	53.85	108	54.33	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	50.43	101	50.10	100	67-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	51.38	103	51.83	104	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.16	110	54.04	108	70-139	2	0-20	
Vinyl Acetate	ND	50.00	20.41	41	20.38	41	10-190	0	0-40	
Vinyl Chloride	ND	50.00	45.92	92	48.64	97	59-137	6	0-20	
p/m-Xylene	ND	100.0	103.7	104	102.7	103	67-145	1	0-28	
o-Xylene	ND	50.00	51.97	104	51.61	103	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.03	92	47.70	95	69-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control Sample ID	Туре	M	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number	
MW-13-090716	Sample	-	Aqueous	ICP/MS 03	09/14/16 00:00	09/14/16 19:49	160914SA1	
MW-13-090716	PDS		Aqueous	ICP/MS 03	09/14/16 00:00	09/14/16 19:44	160914SA1	
Parameter	·	Sample Conc.	Spike Added	PDS Conc	. PDS %Re	<u>c.</u> %Rec. C	<u> Qualifiers</u>	
Antimony		ND	0.1000	0.1019	102	75-125		
Arsenic		0.008756	0.1000	0.1061	97	75-125		
Barium		0.003325	0.1000	0.1032	100	75-125		
Beryllium		ND	0.1000	0.09381	94	75-125		
Cadmium		ND	0.1000	0.09354	94	75-125		
Chromium		ND	0.1000	0.1029	103	75-125		
Cobalt		ND	0.1000	0.09353	94	75-125		
Copper		ND	0.1000	0.09034	90	75-125		
Lead		ND	0.1000	0.1062	106	75-125		
Molybdenum		0.01113	0.1000	0.1236	112	75-125		
Nickel		0.001250	0.1000	0.09287	92	75-125		
Selenium		ND	0.1000	0.09036	90	75-125		
Silver		ND	0.05000	0.05048	101	75-125		
Thallium		ND	0.1000	0.09863	99	75-125		
Vanadium		0.006589	0.1000	0.1040	97	75-125		
Zinc		0.006424	0.1000	0.09516	89	75-125		





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0478-2	Sample	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910ALKD2
16-09-0478-2	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910ALKD2
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		82.00	74.00	10	0-25	



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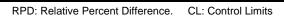
Method:

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0478-2	Sample	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910HCOD2
16-09-0478-2	Sample Duplicate	Aqueous	PH1/BUR03	N/A	09/10/16 15:15	G0910HCOD2
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		82.00	74.00	10	0-25	







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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	<u>Qualifiers</u>
Bicarbonate (as CaCO3)		ND	ND	N/A	0-25	





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		ND	ND	N/A	0-25	



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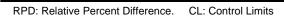
Method:

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0405-4	Sample	Aqueous	N/A	09/14/16 00:00	09/14/16 18:00	G0914TDSD2
16-09-0405-4	Sample Duplicate	Aqueous	N/A	09/14/16 00:00	09/14/16 18:00	G0914TDSD2
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		21600	22300	3	0-20	





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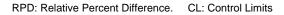
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-1085-1	Sample	Aqueous	BUR05	09/16/16 00:00	09/16/16 15:05	G0916TKND1
16-09-1085-1	Sample Duplicate	Aqueous	BUR05	09/16/16 00:00	09/16/16 15:05	G0916TKND1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	<u>Qualifiers</u>
Total Kjeldahl Nitrogen		1.470	1.680	13	0-25	



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N/A

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EPA 300.0



# **Quality Control - LCS**

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Quality Control Sample ID	Type	Matrix	Instrument	Date	Prepared Date A	nalyzed	LCS Batch Number	
099-12-906-6933	LCS	Aqueous	IC 10	N/A	09/09/	16 21:53	160909L02	
<u>Parameter</u>		Spike Added	Conc. Recov	ered	LCS %Rec.	%Rec.	. CL Qualifiers	
Chloride		50.00	49.96		100	90-110	)	
Sulfate		50.00	50.82		102	90-110	)	



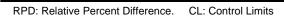


Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 N/A

EPA 300.0

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number_
099-12-906-6932	LCS	Aqı	ieous	IC 10	N/A	09/1	2/16 11:08	160912L01	
099-12-906-6932	LCSD	Aqı	ieous	IC 10	N/A	09/1	2/16 11:40	160912L01	
<u>Parameter</u>	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	49.58	99	49.71	99	90-110	0	0-15	
Sulfate	50.00	49.99	100	50.32	101	90-110	1	0-15	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	ared Date	Analyzed	LCS/LCSD Ba	atch Number
099-15-859-1057	LCS	Aqı	ieous	PH1/BUR03	N/A	09/1	0/16 15:15	G0910ALKB2	!
099-15-859-1057	LCSD	Aqı	ueous	PH1/BUR03	N/A	09/1	0/16 15:15	G0910ALKB2	!
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	99.00	99	80-120	1	0-20	





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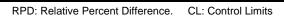
N/A

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	epared Date	e Analyzed	LCS/LCSD B	atch Number
099-15-981-182	LCS	Aqı	ieous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB	1
099-15-981-182	LCSD	Aqι	ieous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB	1
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared [	Date Analyzed	LCS/LCSD Ba	tch Number
099-12-180-5243	LCS	Aqı	ieous	N/A	09/14/16	0	9/14/16 18:00	G0914TDSB2	
099-12-180-5243	LCSD	Aqı	ieous	N/A	09/14/16	0	9/14/16 18:00	G0914TDSB2	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec.	CL RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	80.00	80	85.00	85	80-120	6	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Date	e Analyzed	LCS/LCSD Ba	tch Number
099-05-098-2791	LCS	Aqu	ieous	UV 7	09/09/16	09/0	09/16 21:13	G0909TPL2	
099-05-098-2791	LCSD	Aqu	ieous	UV 7	09/09/16	09/0	09/16 21:13	G0909TPL2	
<u>Parameter</u>	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.3949	99	0.4193	105	80-120	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control Sample ID	Type	Mat	rix	Instrument	Date Pre	pared Dat	e Analyzed	LCS/LCSD Ba	tch Number
099-14-276-204	LCS	Aqı	ieous	UV 7	09/09/16	09/0	09/16 21:13	G0909PO4L2	
099-14-276-204	LCSD	Aqı	ueous	UV 7	09/09/16	09/0	09/16 21:13	G0909PO4L2	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.208	99	1.283	105	80-120	6	0-20	





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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	tch Number
099-12-814-2433	LCS	Aqı	ieous	BUR05	09/16/16	09/1	6/16 15:46	G0916NH3L1	
099-12-814-2433	LCSD	Aqı	ieous	BUR05	09/16/16	09/1	6/16 15:46	G0916NH3L1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.368	87	4.452	89	80-120	2	0-20	

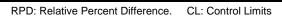


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N/A
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SM 4500-NO3 E

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-441	LCS	Aqı	ieous	UV 7	09/13/16	09/13	3/16 18:52	G0913NO3L1	
099-14-282-441	LCSD	Aqu	ieous	UV 7	09/13/16	09/13	3/16 18:52	G0913NO3L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5171	103	0.5244	105	80-120	1	0-20	







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Quality Control Sample ID	Туре	Mat	trix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-05-093-3142	LCS	Aqı	ueous	UV 8	09/09/16	09/0	9/16 14:38	G0909SURL1	
099-05-093-3142	LCSD	Aqı	ueous	UV 8	09/09/16	09/0	9/16 14:38	G0909SURL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	1.050	105	1.013	101	80-120	4	0-20	

N/A



# **Quality Control - LCS**

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6682	LCS	Aqueous	ICP 7300	09/13/16	09/15/16 16:40	160913LA6
Parameter		Spike Added	Conc. Recovere	ed LCS %R	ec. %Rec	. CL Qualifiers
Calcium		0.5000	0.5532	111	85-115	5
Magnesium		0.5000	0.4828	97	85-115	5
Sodium		5.000	4.823	96	85-115	5

RPD: Relative Percent Difference. CL: Control Limits





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	ed Date Analyze	ed LCS Batch No	umber
096-06-003-5318	LCS	Aqueous	ICP/MS 03	09/14/16	09/14/16 19:	36 160914LA1	
<u>Parameter</u>	<u>S</u>	pike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.	1000	0.1022	102	80-120	73-127	
Arsenic	0.	1000	0.1015	102	80-120	73-127	
Barium	0.	1000	0.09821	98	80-120	73-127	
Beryllium	0.	1000	0.1080	108	80-120	73-127	
Cadmium	0.	1000	0.1001	100	80-120	73-127	
Chromium	0.	1000	0.09956	100	80-120	73-127	
Cobalt	0.	1000	0.1037	104	80-120	73-127	
Copper	0.	1000	0.1029	103	80-120	73-127	
Lead	0.	1000	0.1018	102	80-120	73-127	
Molybdenum	0.	1000	0.1016	102	80-120	73-127	
Nickel	0.	1000	0.1058	106	80-120	73-127	
Selenium	0.	1000	0.1015	101	80-120	73-127	
Silver	0.	05000	0.05217	104	80-120	73-127	
Thallium	0.	1000	0.09850	99	80-120	73-127	
Vanadium	0.	1000	0.1068	107	80-120	73-127	
Zinc	0.	1000	0.1022	102	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 3005A Filt. EPA 6020

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	red Date Analyze	ed LCS Batch No	umber
099-15-693-1209	LCS	Aqueous	s ICP/MS 03	09/14/16	09/14/16 19:	36 160914LA1F	
Parameter	<u>S</u>	pike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Antimony	0.	.1000	0.1022	102	80-120	73-127	
Arsenic	0.	.1000	0.1015	102	80-120	73-127	
Barium	0.	.1000	0.09821	98	80-120	73-127	
Beryllium	0.	.1000	0.1080	108	80-120	73-127	
Cadmium	0.	.1000	0.1001	100	80-120	73-127	
Chromium	0.	.1000	0.09956	100	80-120	73-127	
Cobalt	0.	.1000	0.1037	104	80-120	73-127	
Copper	0.	.1000	0.1029	103	80-120	73-127	
Lead	0.	.1000	0.1018	102	80-120	73-127	
Molybdenum	0.	.1000	0.1016	102	80-120	73-127	
Nickel	0.	.1000	0.1058	106	80-120	73-127	
Selenium	0.	.1000	0.1015	101	80-120	73-127	
Silver	0.	.05000	0.05217	104	80-120	73-127	
Thallium	0.	.1000	0.09850	99	80-120	73-127	
Vanadium	0.	.1000	0.1068	107	80-120	73-127	
Zinc	0.	.1000	0.1022	102	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Total

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7973	LCS	Aqueous	Mercury 05	09/14/16	09/14/16 19:30	160914LA2
<u>Parameter</u>		Spike Added	Conc. Recover	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01011	101	80-120	0



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0590

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
 Page 15 of 20

Quality Control Sample ID	Туре	Matrix	Instrument Date Prepared		Date Analyzed	LCS Batch Number	
099-15-763-823	LCS	Aqueous	Mercury 05	09/14/16	09/14/16 19:30	160914LA2F	
Parameter		Spike Added	Conc. Recover	red LCS %Re	ec. %Rec	. CL Qualifiers	
Mercury		0.01000	0.01011	101	80-12	0	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 3510C EPA 8270C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	d Date	Analyzed	LCS/LCSD Ba	tch Number
099-02-008-63	LCS		Aqueous	s	GC/MS CCC	09/12/16	09/12	/16 12:59	160912L01	
099-02-008-63	LCSD		Aqueous	s	GC/MS CCC	09/12/16	09/12	/16 13:18	160912L01	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSE Conc.		%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20	
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20	
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20	
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20	
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20	
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20	
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20	
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20	
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20	
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21	
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20	
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20	
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20	
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20	
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26	
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20	
Diethyl Phthalate	100.0	81.95	82	80.70		40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL

CL: Control Limits



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0590
Santa Barbara, CA 93101-2177
Preparation:
EPA 3510C
Method:
EPA 8270C

Project: CG Roxane / SB0794 Page 17 of 20

<u>Parameter</u>	<u>Spike</u> Added	LCS Cond	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 1





## **Quality Control - LCS/LCSD**

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 18 of 20

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass



## **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0590 EPA 5030C EPA 8260B

09/09/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	· · · · · · · · · · · · · · · · · · ·	Date Analyzed	•	mber
099-14-316-2965	LCS	Aqueous	GC/MS XX	09/10/16	09/10/16 13:42		
<u>Parameter</u>							Qualifiers
Acetone	50.			12-1		173	
Benzene	50.	00 49.7	0 99	80-1	20 73	3-127	
Bromobenzene	50.	00 52.0	4 104	80-1	20 73	3-127	
Bromochloromethane	50.	00 51.8	8 104	80-1	22 73	3-129	
Bromodichloromethane	50.	00 44.5	0 89	80-1	23 73	3-130	
Bromoform	50.	00 35.2	1 70	74-1	34 64	1-144	ME
Bromomethane	50.	00 44.5	3 89	22-1	60 0-	183	
2-Butanone	50.	00 46.8	4 94	44-1	64 24	1-184	
n-Butylbenzene	50.	00 50.1	8 100	80-1	32 71	I-141	
sec-Butylbenzene	50.	00 49.7	2 99	80-1	29 72	2-137	
tert-Butylbenzene	50.	00 50.0	4 100	80-1	30 72	2-138	
Carbon Disulfide	50.	00 42.7	8 86	60-1	26 49	9-137	
Carbon Tetrachloride	50.	00 43.6	0 87	64-1	48 50	)-162	
Chlorobenzene	50.	00 51.1	5 102	80-1	20 73	3-127	
Chloroethane	50.	00 44.7	4 89	63-1	23 53	3-133	
Chloroform	50.	00 48.3	6 97	79-1	21 72	2-128	
Chloromethane	50.	00 42.7	1 85	43-1	33 28	3-148	
2-Chlorotoluene	50.	00 49.8	3 100	80-1	30 72	2-138	
4-Chlorotoluene	50.	00 47.5	6 95	80-1	21 73	3-128	
Dibromochloromethane	50.	00 42.4	8 85	80-1	25 72	2-132	
1,2-Dibromo-3-Chloropropane	50.	00 40.4	1 81	68-1	28 58	3-138	
1,2-Dibromoethane	50.	00 50.8	8 102	80-1	20 73	3-127	
Dibromomethane	50.	00 47.6	0 95	80-1	21 73	3-128	
1,2-Dichlorobenzene	50.	00 49.1	8 98	80-1	20 73	3-127	
1,3-Dichlorobenzene	50.	00 49.3	6 99	80-1	21 73	3-128	
1,4-Dichlorobenzene	50.	00 49.0	5 98	80-1	20 73	3-127	
Dichlorodifluoromethane	50.	00 35.9	4 72	25-1	87 0-	214	
1,1-Dichloroethane	50.	00 48.0	7 96	75-1	20 68	3-128	
1,2-Dichloroethane	50.	00 46.4	8 93	80-1	23 73	3-130	
1,1-Dichloroethene	50.	00 46.6	3 93	74-1	22 66	6-130	
c-1,2-Dichloroethene	50.	00 49.7	5 100	75-1	23 67	7-131	
t-1,2-Dichloroethene	50.	00 48.2	6 97	70-1	24 61	I-133	
1,2-Dichloropropane	50.	00 50.9	6 102	80-1	20 73	3-127	
1,3-Dichloropropane	50.	00 51.4	9 103	80-1	20 73	3-127	
2,2-Dichloropropane	50.			49-1		2-168	
1,1-Dichloropropene	50.	00 50.8	6 102	76-1	20 69	9-127	
c-1,3-Dichloropropene	50.			80-1		3-131	
t-1,3-Dichloropropene	50.			68-1		3-138	



#### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0590 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.77	102	80-120	73-127	
2-Hexanone	50.00	48.67	97	57-147	42-162	
Isopropylbenzene	50.00	50.93	102	80-127	72-135	
p-Isopropyltoluene	50.00	50.59	101	80-125	72-132	
Methylene Chloride	50.00	48.28	97	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.92	100	71-125	62-134	
Naphthalene	50.00	50.68	101	54-144	39-159	
n-Propylbenzene	50.00	45.31	91	80-127	72-135	
Styrene	50.00	51.58	103	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	48.20	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.96	100	78-126	70-134	
Tetrachloroethene	50.00	52.04	104	57-141	43-155	
Toluene	50.00	50.57	101	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.82	102	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	51.70	103	57-153	41-169	
1,1,1-Trichloroethane	50.00	46.29	93	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.67	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	50.12	100	80-120	73-127	
Trichloroethene	50.00	48.53	97	80-120	73-127	
Trichlorofluoromethane	50.00	46.32	93	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.68	95	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	48.92	98	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	50.94	102	80-126	72-134	
Vinyl Acetate	50.00	16.94	34	34-172	11-195	
Vinyl Chloride	50.00	43.39	87	67-127	57-137	
p/m-Xylene	100.0	97.48	97	80-127	72-135	
o-Xylene	50.00	49.12	98	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.85	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



## **Sample Analysis Summary Report**

Work Order: 16-09-0590				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 05	1
EPA 7470A	EPA 7470A Total	868	Mercury 05	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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## **Glossary of Terms and Qualifiers**

Work Order: 16-09-0590 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

% Recovery and/or RPD out-of-range. Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

The sample extract was subjected to Silica Gel treatment prior to analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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	eurofins													ပ	HAIN	I OF	CUS	10T	X R	<b>CHAIN OF CUSTODY RECORD</b>	2
ı	Calscience	<u> </u>					ž	WO#/LAB USE ONL'	JSE ONLY				<u>^</u>	DATE:	9.	7-1	9	to 9	9-8-16	7	
7440 L	740 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 -or courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.	14) 895-5494 us26_sales@eurofin	sus.com or ca	all us.				¥		[6-09-059]	SE SE	2	Ā	PAGE:		7		유 			
LABO	RATORY CLIENT:						ರ	ENT PRO	JECT NAM	CLIENT PROJECT NAME / NUMBER.	.: ::					P.O. NO.:	 O.:				
ADDR	ADDRESS:						T	CG Roxane	пе							SBC	SB0794				
	924 Anacapa St. Suite 4A						A.	PROJECT CONTACT:	ONTACT:							SAMP	SAMPLER(S): (PRINT)	RINT)			
CITY:	Santa Barbara		STATE:	CA ZIP:	93101			Kevin Coffman	ffman							Ken	Kenjo Agustsson	tsson			
7EL:	805-897-3800 E-MAIL:	KCoffman@geosyntec.com	osyntec.c	mo;				,				REC	NES.	REQUESTED ANALYSES	NAL	SES					
TURN	apply to any TAT	not "STANDARD"): ロ72 HR ロち	); [] 5 DAVS #	T STANDABL	0					Pleas	Please check	box or f	ill in blar	box or fill in blank as needed	aded.			Н			
	GLOBAL ID:	1		1	100 CODE	ODE	(p:	**													
SPECI	SPECIAL INSTRUCTIONS:						iltere	6 43				(80		KM)	(	1)	,				-
クカ	LA Cooler(s) with this COC shipped via FedEx Analyze sets of short how times immediately!	net innelic	Jely!		рәл		ered ssolved (Field F	) ( <del>borotlâ del)</del> leto	(809	(SA8M) a		IT) sbilo2 bəvlo	lstoT ,eu	e, Total 	sinommA	NOT) SON+EOV	(072				
LAB USE	SAMPLE ID	SAMPLING	MATRIX	NO.	brese	eviese	ld Filt. Bls, D	als, Te	S8) sC	····	ytinile	ssiQ la	abyou			ʻuəbo	8) sOc				
ONLY	-	TIME	VIVII CIII	CONT.	un	-	-	Met	OΟΛ	hu2 oinA		stoT	ьро			Oitro	ONS				
$\setminus$	MW-13-090716 9-7-16	12219	3	17	3	12	<u>×</u>	X	<del>ك</del>	X		X	X	X	X	X	X	-			
\	actB-63-090716 9-7-16	9	3	2					X												
S-5.	11-7-9-96716 9-7-16	6 1350	C)	<u></u>	Ŋ	7	<u> </u>	X	X	X	X	X	X	X	X	X	X				
1	MW-08-090716 9-7-16	95419	$\beta$	17	5	12	X	×	X	X	X	X	X	トタ	X	X	X				
6	QCEB-03-090716 9-7-16	209/9	3	(7)	5	12 1	X	X	X	X	X	X	X	X	×	X	X				
Q	MW-11-090816 9.8.16	6 0827	3	[3	Ŋ	. 21	X	X	X	X X	X	X	X	X	X	X	X				
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8	Mw-04-090816-DUP 9-8-16	5501 3	3	7	72	2	X	$\langle \times \rangle$	X	<b>文</b>	X	X	又	义 义	X	X	X				
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	Keinquished by: (Signature)	Gessmarke	Jan Jan	Rece	Received by:	(Signature/Affil	re/Affiljati	$\mathscr{N}_{\lambda}$	\ \	Edd	11	()			<b>₩</b>	1-8-20-	3			000	QE I
	uished by: (Signature)			Rece	ived by:	Received by: (Signature/Affiliation)	re/Affiliati	ou)			7	1		\	Date:			F	Time:		
Reling	Relinquished by: (Signature)			Rece	ived by:	Received by: (Signature/Affiliation)	re/Affiliati	(uo					1		Date:		_	F	Time:	(	13

06/02/14 Revision

FECEX. Package US A	7e irhill Tracking 8088 6106	7224 / 80200	Page 129 of 134
1 From Date 9-8-16		4 Express Package Se	Pakkages up to 150 lbs. For packages over 150 lbs. use the gadex Express Freight US Airbill.
Sender's Kenja Ae	gusteson Phone 85 8	Next Business Day  FedEx First Overnight Earliest next business morning delive locations. Friday shipmants will be di	elivered on Saturday Delivery NOT available.
Company GRESYA	tec Conceltante	Monday unless Saturday Delivery is FedEx Priority Qvernight Next business norming Filtery shirt delivered on Bonday unless Saturda is selected.	1
Address 974 A	racopa St. Ste	Dept./Floor/Suite/Room  FedEx Standard Overnigh Next business afternoon.* Saturday Delivery NOT available.	t FedEx Express Saver Third business day.* Saturday Delivery NOT available.
City Sonta Box  2 Your Internal Billing Reference	CONTIGUE AND THE	5 Packaging · Declared	notoe limit \$300.*  FedEx Pak* FedEx FedEx Other Box Tube
3 To Recipient's	1 Nowals Phone 714 S		d Delivery/Signature Options Fees may apply. See the FadEx Service Guide.
Name representation of the Company Fire fire	S Calcalence	NOT available for Fedex Standard On  NO Signature Required Package may be left without obtaining a signature for delivery.	vernight, FedEx 2Day A.M., or FedEx Express Saver.  Direct Signature    Direct Signature
Address 7 44 4 6 We cannot deliver to P.O. boxes or P.O. 21P codes.	Lina Colina Dept. Floor/Suite Room	Hold Weekday FedEx location address REQUIRED: Not available for FedEx First Overnight.  Does this simpment contain The box must be of	may sign for delivery.  address may sign for delivery. For residential deliveries only.  dangerous goods?
Address Use this line for the HOLD location address or for continu	,	Hold Saturday Fedic location address Recultion Analysis of Nu Saturday Fedic Princity Overhight and Fedic Zally to Select locations.  Restrictions apply for dangerous goods—se Fedic Zally to Select Locations.	
city Garden	Grove State CA ZIP 92	841-1427 Payment Bill to:  Sender Act No. In Section Recip	Enter FedEx Acct. No. or Credit Card No. below.  Obtain recip. Acct. No.  ient Third Party Credit Card Card Card Cash/Check
1 1 10 1 WHILE WILL WILL WILL WILL WILL WILL WILL W	E NAS NET KONET TOTALE BEGET TAKONET DELE DELE BEGET DELE DELE DELE DEL	Total Packages Total Weigh	
			los.  lare a higher value. See the current FedEx Service Guide for details.
8	088 6106 7224	Rev. Data 3/16- Epri M40702 - 02012-2015 F	out - Friedra Maria Carlo
Fed ≅ ₹ 8088 6106 7224	FRI - 09 SEP 10:30A PRIORITY OVERNIGHT	Rad 200 8089 6106 7202	FRI - 09 SEP 10:30A PRIORITY OVERNIGHT
	92841	OO ARVA	92841
92 APVA	CA-US SNA	YZ APVA	SNA
FID 5163113 08SEP16 1YKA 539C1/A06	3/3764	FID 5163113 08SEP16 IYKA 53901	653/37E4
	FRI - 09 SEP 10:30A		
<b>高麗 </b>	PRIORITY OVERNIGHT	Fed 3. 3188 4128	FRI - 09 SEP 10:30A PRIORITY OVERNIGHT
	92841 CA-US SNA		92841
92 APVA	SNÃ	92 APVA	CA-US CAIS



WORK ORDER NUMBER: 16-09 age 03 9 03 4

# SAMPLE RECEIPT CHECKLIST COOLER \_\_\_ OF 4\_\_

DATE: 09 / 09 / 2016

ELIENT: Geosyntec		DATE: 09 /	0912	2016
TEMPERATURE: (Criteria: 0.0°C − 6.0°C, not frozen except sedimentary Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2 − 2 □ Sample(s) outside temperature criteria (PM/APM contacted by Sample(s) outside temperature criteria but received on ice/chi	2_°C (w/ CF): 2 -2_ /:)		□ Sample	<b>)</b>
☐ Sample(s) received at ambient temperature; placed on ice for tra Ambient Temperature: ☐ Air ☐ Filter			d by:	5
CUSTODY SEAL:  Cooler □ Present and Intact □ Present but Not Intact  Sample(s) □ Present and Intact □ Present but Not Intact	Not Present		d by: <u>Lo</u>	
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete		Yes	No	N/A
☐ No analysis requested ☐ Not relinquished ☐ No relinquish  Sampler's name indicated on COC  Sample container label(s) consistent with COC  Sample container(s) intact and in good condition	ed date □ No relinquished	a quis		0 0 0
Proper containers for analyses requested  Sufficient volume/mass for analyses requested  Samples received within holding time  Aqueous samples for certain analyses received within 15-minut	e holding time		<u> </u>	
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Proper preservation chemical(s) noted on COC and/or sample con Unpreserved aqueous sample(s) received for certain analyses □ Volatile Organics □ Total Metals □ Dissolved Metals	d Oxygen	0		
Container(s) for certain analysis free of headspace	ved Oxygen (SM 4500) Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation  CONTAINER TYPE:  Aqueous: □ VOA ☑ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125PBznna □ 250AGB □ 250CGB ☑ 250CGBs ☑ 250PB ☑ 500PB ☑ 1AGB □ 1AGBna₂ ☑ 1AGBs ☑ 1PB □ 1PBna ☑	(Trip Blank Lot   □ 125AGB □ 125AGBh □ 1250PBn⊅□ 500AGB □ 5	Number: <u> </u>	0 008 125PB AGJs	
Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ I  Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐  Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J  Preservative: b = buffered, f = filtered, h = HCl, n = HNO <sub>3</sub> , na = NaOH, n	EnCores <sup>®</sup> () ☐ Terra@ Other Matrix (	Cores" () ): □ bloc/Resealable E	□ <u> </u>	
Preservative: <b>b</b> = buffered, <b>f</b> = filtered, <b>h</b> = HCl, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOn, <b>n</b>	az = 11020203; p 1131 041	Review	ed by: <u>71</u>	8/450

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WORK ORDER NUMBER: 16-09 Page 035 01 134

SAMPLE RECEIPT CHECKLIST COOLER 2 OF 4

CLIENT: Geosyntec		DAT	E: 09 /	091	2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sedimentary formula in the sedimentary for the sedimentary formula in t	C (w/ CF): y:) illed on same day of			□ Samplı	
CUSTODY SEAL:  Cooler □ Present and Intact □ Present but Not Intact  Sample(s) □ Present and Intact □ Present but Not Intact	Not Present Not Present	□ N/A □ N/A		d by: <u> </u> d by: <u> </u>	
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete	· · · · · · · · · · · · · · · · · · ·		Yes	No	N/A
☐ No analysis requested ☐ Not relinquished ☐ No relinquished ☐ No relinquished ☐ Sampler's name indicated on COC	ed date □ No relino				0 0 0
Proper containers for analyses requested  Sufficient volume/mass for analyses requested  Samples received within holding time  Aqueous samples for certain analyses received within 15-minute	e holding time				
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved  Proper preservation chemical(s) noted on COC and/or sample con  Unpreserved aqueous sample(s) received for certain analyses  □ Volatile Organics □ Total Metals □ Dissolved Metals	d Oxygen				
Container(s) for certain analysis free of headspace	ved Oxygen (SM 45 lydrogen Sulfide (Ha	00) ach)			
Tedlar™ bag(s) free of condensation	(Trip Blan	k Lot Numbe	er:		)
Aqueous: □ VOA ₺ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ ₺ □ 125PBznna □ 250AGB □ 250CGB ☑ 250CGBs ☑ 250PB ₺ ☑ 500PB ☑ 1AGB □ 1AGBna₂ ☑ 1AGBs ☑ 1PB □ 1PBna ☑ Solid: □ 4ozCGJ □ 8ozCGJ □ 16ozCGJ □ Sleeve () □ E Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □  Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J	1250PBn#□ 500AG 1250	:B □ 500AG □  I TerraCores®): □	J   500A         '()	D	<del></del>
Preservative: b = buffered, f = filtered, h = HCl, n = HNO <sub>3</sub> , na = NaOH, na s = H <sub>2</sub> SO <sub>4</sub> , u = ultra-pure, znna = Zn (CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> + NaOH	$\mathbf{a_2} = Na_2S_2O_3,  \mathbf{p} = H_3P$	O <sub>4</sub> , Labele	ed/Checke	ed by: <u>l</u> ead by: <u>l</u> e	013

WORK ORDER NUMBER: 16-09 130051940

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 $s = H_2SO_4$ , u = ultra-pure,  $znna = Zn (CH_3CO_2)_2 + NaOH$ 

## SAMPLE RECEIPT CHECKLIST

cooler <u>3</u> of <u>4</u>

, SAIVIPLE RECEIPT	CHECKLIST	C,	OULLIN	<u> </u>	' —
CLIENT: GEOSYNPC		DAT	re: 09 /	091	2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sedim Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2 – Sample(s) outside temperature criteria (PM/APM contacted by Sample(s) outside temperature criteria but received on ice/ch Sample(s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature; placed on ice for transfer in the sample (s) received at ambient temperature.	oy:)  willed on same day of s		Blank		
Ambient Temperature: □ Air □ Filter			Checke	ed by:	<u> </u>
CUSTODY SEAL:  Cooler ☐ Present and Intact ☐ Present but Not Intact  Sample(s) ☐ Present and Intact ☐ Present but Not Intact		□ N/A □ N/A		ed by: ed by: <i></i>	
SAMPLE CONDITION:			Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples					
COC document(s) received complete					
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of c☐ No analysis requested ☐ Not relinquished ☐ No relinquish	ontainers				
Sampler's name indicated on COC					
Sample container label(s) consistent with COC					
Sample container(s) intact and in good condition	: ;,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Proper containers for analyses requested	: 				
Sufficient volume/mass for analyses requested	:				
Samples received within holding time	· · ·				
Aqueous samples for certain analyses received within 15-minut					
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved		,			
Proper preservation chemical(s) noted on COC and/or sample con					
Unpreserved aqueous sample(s) received for certain analyses					
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals					
Container(s) for certain analysis free of headspace	······				
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissol					
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ F					
Tedlar™ bag(s) free of condensation	: 				
CONTAINER TYPE:	(Trip Blank	Lot Numbe	>r:		)
Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂	□ 125AGB □ 125AGE	3h □ 125A	GBp 🗗	125PB	
☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐	250PBn ←□ 500AGB	□ 500AG.	J 🗆 500 <i>f</i>	4GJ <b>s</b>	
Ø 500PB Ø 1AGB □ 1AGBna₂ Ø 1AGBs Ø 1PB □ 1PBna Ø	1250 PBn 1	□	□		
Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ E	nCores® () □ T	erraCores®	()		<del></del>
Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □					
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J					
Preservative: $h = \text{buffered}$ $f = \text{filtered}$ , $h = \text{HCI}$ , $n = \text{HNO}_3$ , $na = \text{NaOH}$ , $na = \text{NaOH}$	$a_2 = Na_2S_2O_3$ , $p = H_3PO_2$	, Labele	d/Checke	ed by: <u>/</u>	013

Reviewed by:

WORK ORDER NUMBER: 16-09 138 9

# SAMPLE RECEIPT CHECKLIST COOLER 4 OF 4

	•	(			1
	( a.a. 4) A	has		DATE: 09 / 09 / 20	<b>016</b>
LIENT:	(REOSYN	100	<del>_</del> ;	DATE: 09 1 00 1 20	J 1 U

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2 · O · °C (w/ CF): 2 · O · °C; □ Blank □ Sample  □ Sample(s) outside temperature criteria (PM/APM contacted by:)								
☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling ☐ Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: ☐ Air ☐ Filter	Checked	d by:	5_					
Ambient Temperature. 11711 11711101								
Custody SEAL:  Cooler	Chaoka	d by:	5					
Cooler Driesent and intact Driesent but not intact Driesent DN/A		d by: <u>lo</u>						
Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A	Checked	1 by. <u>co (</u>						
SAMPLE CONDITION:	Yes	No	N/A					
Chain-of-Custody (COC) document(s) received with samples								
COC document(s) received complete								
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers								
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time								
Sampler's name indicated on COC	-							
Sample container label(s) consistent with COC								
Sample container(s) intact and in good condition								
Proper containers for analyses requested								
Sufficient volume/mass for analyses requested								
Samples received within holding time								
Aqueous samples for certain analyses received within 15-minute holding time								
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen								
Proper preservation chemical(s) noted on COC and/or sample container								
Unpreserved aqueous sample(s) received for certain analyses								
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals								
Container(s) for certain analysis free of headspace	<b>2</b>							
Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)								
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)								
Tedlar™ bag(s) free of condensation								
, mar 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			)					
CONTAINER TYPE: (Trip Blank Lot Number Aqueous:   VOA   VOAh   VOAna2   100PJ   100PJna2   125AGB   125AGBh   125A			·/					
☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ←☐ 500AGB ☐ 500AGJ	□ 500A	GJs						
☐ 500PB ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ 250 PB ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	□							
Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® () ☐ TerraCores®		<b></b>						
Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □ Other Matrix (): □								
Container: <b>A</b> = Amber, <b>B</b> = Bottle, <b>C</b> = Clear, <b>E</b> = Envelope, <b>G</b> = Glass, <b>J</b> = Jar, <b>P</b> = Plastic, and <b>Z</b> = Ziploc/Res								
Preservative: $b = buffered$ , $f = filtered$ , $h = HCl$ , $n = HNO_3$ , $na = NaOH$ , $na_2 = Na_2S_2O_3$ , $p = H_3PO_4$ , Labelet	d/Checke	d by: <u>lo</u>	13					
$s = H_2SO_4$ , $u = ultra-pure$ , $znna = Zn (CH_3CO_2)_2 + NaOH$	Reviewe	d by: <u></u>	19					



Calscience

WORK ORDER NUMBER: 16-09 age 134 50 34

# SAMPLE ANOMALY REPORT

DATE: 09 / 09 / 2016

SAMPLES	S, CONTAINI	ERS, ANI	D LABELS	S:		Commen	its		
☐ Sample(	s) NOT RECE	IVED but I	isted on CC	C			·		
☐ Sample(	s) received bu	t NOT LIS	TED on CO	С		·			
☐ Holding	time expired (l	ist client o	r ECI samp	le ID and ana	lysis)				
☐ Insufficie	ent sample am	ount for re	quested an	alysis (list ana	alysis)				
☐ Imprope	r container(s) ı	used (list a	analysis)						
☐ Imprope	r preservative	used (list a	analysis)						
☐ No prese	ervative noted	on COC o	r label (list	analysis and r	notify lab)				
☐ Sample	container(s) no	ot labeled							
☐ Client sa	ımple label(s) i	illegible (lis	st container	type and ana	ılysis)	:			,
☐ Client sa	imple label(s)	do not mat	tch COC (co	omment)					
□ Proje	ct information								
☐ Clien	t sample ID						1 ~~ 1		
☐ Sam	pling date and	or time				(-6)		s via	s received
□ Numl	ber of containe	er(s)				br	oken.		
□ Requ	ested analysis	3							
☑ Sample	container(s) co	ompromise	ed (commer	nt)					
Broke کے	en					-			
□ Wate	er present in sa	ample cont	ainer						
☐ Air samp	ole container(s	) compron	nised (comp	nent)					
□ Flat									
□ Very	low in volume								
□ Leak	ing (not transfe	erred; dupl	licate bag s	ubmitted)		:			
□ Leak	ing (transferre	d into ECI	Tedlar™ ba	ags*)					
□ Leak	ing (transferre	d into clier	nt's Tedlar™	<sup>м</sup> bags*)		. :			
* Transfer	red at client's requ	iest.							
MISCELL	ANEOUS: (D	escribe)				Comments			
HEADSP	ACE:								
	ith bubble > 6 mm	or ¼ inch for	volatile organi	c or dissolved gas	s analysis)	(Containers wi	th bubble for othe	r analysis)	
ECI	ECI	Total	ECI	ECI	Total Number**	ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis
Sample ID	Container ID	Number**	Sample ID	Container ID	Mumber	Jample ID	Container ID	14dilliper	(Togasous / Haljon
Co		1							
Comments	· · · · · · · · · · · · · · · · · · ·							F	Reported by: 10/3
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~~ kecord the	total number of co	miamers (i.e.,	viais or potties	of for the affected	sampie.			Į,	



# **Calscience**



# **WORK ORDER NUMBER: 16-09-0591**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman

924 Anacapa Street

Suite 4A

Santa Barbara, CA 93101-2177

Monde

Approved for release on 09/21/2016 by:

Stephen Nowak Project Manager

ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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#### **Work Order Narrative**

Work Order: 16-09-0591 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/09/16. They were assigned to Work Order 16-09-0591.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

16-09-0591

09/09/16 10:20

20



#### **Sample Summary**

Client: Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Work Order: Project Name:

CG Roxane / SB0794

PO Number:

Date/Time Received:

Number of

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-04-090816	16-09-0591-1	09/08/16 00:00	2	Aqueous
MW-03-090816	16-09-0591-2	09/08/16 12:26	1	Aqueous
QCEB-04-090816	16-09-0591-3	09/08/16 13:00	17	Aqueous





 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-Q	09/08/16 13:00	Aqueous	IC 10	N/A	09/10/16 01:25	160909L02
Parameter		Result	<u>RL</u>		<u>DF</u>	Qual	<u>ifiers</u>
Chloride		ND	1.0		1.00		
Sulfate		ND	1.0		1.00		

Method Blank	099-12-906-6933	N/A	Aqueous IC 10	N/A	09/09/16 160909L02 21:34
<u>Parameter</u>	·	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Chloride		ND	1.0	1.00	
Sulfate		ND	1.0	1.00	





Geosyntec Consultants Date Received: 09/09/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0591 Santa Barbara, CA 93101-2177 Preparation: N/A Method: EPA 200.7 Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-N	09/08/16 13:00	Aqueous	ICP 7300	09/13/16	09/15/16 12:50	160913LA6
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	alifiers
Calcium		ND	0.1	00	1.00		
Magnesium		ND	0.1	00	1.00		
Sodium		ND	0.5	500	1.00		

Method Blank	097-01-012-6682	N/A	Aqueous ICP 7300	09/13/16	09/15/16 160913LA6 16:39
Parameter		Result	<u>RL</u>	<u>DF</u>	Qualifiers
Calcium		ND	0.100	1.00	
Magnesium		ND	0.100	1.00	
Sodium		ND	0.500	1.00	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-N	09/08/16 13:00	Aqueous	ICP/MS 03	09/14/16	09/15/16 11:58	160914LA8
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5319	N/A	Aqueous	ICP/MS 03	09/14/16	09/15/16 14:18	160914LA8
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-O	09/08/16 13:00	Aqueous	ICP/MS 03	09/14/16	09/15/16 11:56	160914LA8F
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane / SB0794

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1210	N/A	Aqueous	ICP/MS 03	09/14/16	09/15/16 14:18	160914LA8F
Parameter		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	00100	1.00		
Zinc		ND	0.0	00500	1.00		

Page 1 of 1



Project: CG Roxane / SB0794

#### **Analytical Report**

Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0591
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Total
Method:
EPA 7470A

Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-N	09/08/16 13:00	Aqueous	Mercury 04	09/15/16	09/15/16 20:07	160915LA2
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	00500	1.00		

Method Blank	099-04-008-7974	N/A	Aqueous Mercury	04 09/15/16	09/15/16 160915LA2 19:34
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury		ND	0.000500	1.00	



Mercury

#### **Analytical Report**

Geosyntec Consultants Date Received: 09/09/16 924 Anacapa Street, Suite 4A Work Order: 16-09-0591 EPA 7470A Filt. Santa Barbara, CA 93101-2177 Preparation: Method: EPA 7470A Units: mg/L

Project: CG Roxane / SB0794 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-O	09/08/16 13:00	Aqueous	Mercury 04	09/15/16	09/15/16 20:14	160915LA2F
Parameter		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Mercury		ND	0.0	000500	1.00		
Method Blank	099-15-763-825	N/A	Aqueous	Mercury 04	09/15/16	09/15/16 19:34	160915LA2F
Parameter		Result	RL		DF	Qua	alifiers

ND

0.000500

1.00





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-09-0591 EPA 3510C EPA 8270C ug/L

09/09/16

Project: CG Roxane / SB0794

Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090816	16-09-0591-2-A	09/08/16 12:26	Aqueous	GC/MS CCC	09/12/16	09/13/16 15:46	160912L01
<u>Parameter</u>		Result	<u>RL</u>		<u>DF</u>	Qua	<u>lifiers</u>
Acenaphthene		ND	9.5		1.00		
Acenaphthylene		ND	9.5		1.00		
Aniline		ND	9.5		1.00		
Anthracene		ND	9.5		1.00		
Azobenzene		ND	9.5		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.5		1.00		
Benzo (a) Pyrene		ND	9.5		1.00		
Benzo (b) Fluoranthene		ND	9.5		1.00		
Benzo (g,h,i) Perylene		ND	9.5		1.00		
Benzo (k) Fluoranthene		ND	9.5		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.5		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.5		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.5		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.5		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.5		1.00		
Butyl Benzyl Phthalate		ND	9.5		1.00		
4-Chloro-3-Methylphenol		ND	9.5		1.00		
4-Chloroaniline		ND	9.5		1.00		
2-Chloronaphthalene		ND	9.5		1.00		
2-Chlorophenol		ND	9.5		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.5		1.00		
Chrysene		ND	9.5		1.00		
2,6-Dichlorophenol		ND	9.5		1.00		
Di-n-Butyl Phthalate		ND	9.5		1.00		
Di-n-Octyl Phthalate		ND	9.5		1.00		
Dibenz (a,h) Anthracene		ND	9.5		1.00		
Dibenzofuran		ND	9.5		1.00		
1,2-Dichlorobenzene		ND	9.5		1.00		
1,3-Dichlorobenzene		ND	9.5		1.00		
1,4-Dichlorobenzene		ND	9.5		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.5		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 9

				1 3.9 = 3.1 3
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

9.5

1.00

ND



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	95	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

Page 4 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	16-09-0591-3-I	09/08/16 13:00	Aqueous	GC/MS CCC	09/12/16	09/13/16 16:05	160912L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	<u>lifiers</u>
Acenaphthene		ND	9.6		1.00		
Acenaphthylene		ND	9.6		1.00		
Aniline		ND	9.6		1.00		
Anthracene		ND	9.6		1.00		
Azobenzene		ND	9.6		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzo (k) Fluoranthene		ND	9.6		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol		ND	9.6		1.00		
4-Chloroaniline		ND	9.6		1.00		
2-Chloronaphthalene		ND	9.6		1.00		
2-Chlorophenol		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Chrysene		ND	9.6		1.00		
2,6-Dichlorophenol		ND	9.6		1.00		
Di-n-Butyl Phthalate		ND	9.6		1.00		
Di-n-Octyl Phthalate		ND	9.6		1.00		
Dibenz (a,h) Anthracene		ND	9.6		1.00		
Dibenzofuran		ND	9.6		1.00		
1,2-Dichlorobenzene		ND	9.6		1.00		
1,3-Dichlorobenzene		ND	9.6		1.00		
1,4-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.6		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane / SB0794
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1 Tojeot: OO Ttoxarie / OBoT 94				1 490 0 01 0
Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
O A E Triablement and	ND	0.0	4.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

9.6

1.00

ND



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	50-110	
2-Fluorophenol	60	20-110	
Nitrobenzene-d5	86	40-110	
p-Terphenyl-d14	87	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	92	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane / SB0794

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Method Blank         099-02-008-63         N/A         Aqueous         GC/MS CCC         09/12/16         100           Parameter         Result         RL         DE         Qualifiers           Acenaphthene         ND         10         1.00         1.00           Aniliracene         ND         10         1.00         1.00           Aniliracene         ND         10         1.00         1.00           Benzo (a) Anthracene         ND         10         1.00         1.00           Benzo (a) Pyrene         ND         10         1.00         1.00           Benzo (b) Fluoranthene         ND         10         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00<	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acenaphthene         ND         10         1.00           Acenaphthylene         ND         10         1.00           Antiline         ND         10         1.00           Anthracene         ND         10         1.00           Archeracere         ND         10         1.00           Benzo (a) Anthracene         ND         10         1.00           Benzo (a) Pyrene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzo (c) Acid         ND         10         1.00           Benzo (c) Fluoranthene         ND         10         1.00           Benzo (c) Cacid         ND         10         1.00           Benzo (c) Cacid         ND         10         1.00           Bis(2-Chlorostoropyl) Ether         ND <th>Method Blank</th> <th>099-02-008-63</th> <th>N/A</th> <th>Aqueous</th> <th>GC/MS CCC</th> <th>09/12/16</th> <th>09/12/16 12:40</th> <th>160912L01</th>	Method Blank	099-02-008-63	N/A	Aqueous	GC/MS CCC	09/12/16	09/12/16 12:40	160912L01
Acenaphthylene         ND         10         1,00           Aniline         ND         10         1,00           Anthracene         ND         10         1,00           Azobenzene         ND         10         1,00           Benzidine         ND         50         1,00           Benzo (a) Anthracene         ND         10         1,00           Benzo (b) Fluoranthene         ND         10         1,00           Benzo (b) Fluoranthene         ND         10         1,00           Benzo (k), i) Perylene         ND         10         1,00           Benzo (k), increation	<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Aniline	Acenaphthene		ND	10		1.00		
Anthracene         ND         10         1.00           Azobenzene         ND         10         1.00           Benzo (a) Anthracene         ND         50         1.00           Benzo (a) Pyrene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (k), il) Perylene         ND         10         1.00           Benzo (k), il Dervlene         ND         10         1.00           Benzo (k), il Dervlene         ND         10         1.00           Benzol Acid         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethyr) Ether         ND         10         1.00           Bis(2-Chloroethyr) Ether         ND         10         1.00           Bis(2-Chlorophyr)-Phenyl Ether         ND         10         1.00           Bis(2-Chlorophyr)-Phenyl Ether         ND         10         1.00 <th< td=""><td>Acenaphthylene</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></th<>	Acenaphthylene		ND	10		1.00		
Azobenzene         ND         10         1.00           Benzidine         ND         50         1.00           Benzo (a) Anthracene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (g)-H) Perylene         ND         10         1.00           Benzo (g)-H) Perylene         ND         10         1.00           Benzo (Acid         ND         50         1.00           Benzo (Acid         ND         10         1.00           Benzol Acid         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethy) Bether         ND         10         1.00           Bis(2-Chloroethy) Ether         ND         10         1.00           Bis(2-Chlorophenyl) Pethralate         ND         10         1.00           Bis(2-Chlorophenyl) Pethralate         ND         10         1.00           4-Chloroa-Methrylphenol         ND         10         1.00           4-Chloroa-S-Methrylphenol         ND         10         1.00           4-Chlorophenol	Aniline		ND	10		1.00		
Benzidine         ND         50         1.00           Benzo (a) Aytracee         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (g), ii) Perylene         ND         10         1.00           Benzolo Acid         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chlorosity) Betra         ND         10         1.00           Bis(2-Chlorosipyl) Ether         ND         10         1.00           Bis(2-Chlorosippopyl) Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           4-Chlorosphenol         ND         10         1.00	Anthracene		ND	10		1.00		
Benzo (a) Anthracene         ND         10         1.00           Benzo (a) Fyrene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         50         1.00           Benzol Acid         ND         10         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethoxy) Ether         ND         10         1.00           Bis(2-Chlorosporpyl) Ether         ND         10         1.00           Bis(2-Chlorophoryl-Phenyl Ether         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           8utyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           2-Chlorophenol         ND         10         1.00	Azobenzene		ND	10		1.00		
Benzo (a) Pyrene         ND         10         1.00           Benzo (b) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzyl Alcohol         ND         50         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethyl) Bethare         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         10         1.00           Bis(2-Chlorostopropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           Chrysene         ND         10         1.00           Chrysene         ND         10         1.00           <	Benzidine		ND	50		1.00		
Benzo (b) Fluoranthene         ND         10         1.00           Benzo (g,h,i) Perylene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzol (k) Fluoranthene         ND         50         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethoxy) Ether         ND         10         1.00           Bis(2-Chlorospropyl) Ether         ND         10         1.00           Bis(2-Chlorospropyl) Ether         ND         10         1.00           Bis(2-Chlorospropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           Buyl Benzyl Phthalate         ND         10         1.00           Buyl Benzyl Phthalate         ND         10         1.00           4-Chloroaniline         ND         10         1.00           4-Chlorophenol         ND         10         1.00           4-Chlorophenol         ND         10         1.00	Benzo (a) Anthracene		ND	10		1.00		
Benzo (g,h,i) Perylene         ND         10         1.00           Benzo (k) Fluoranthene         ND         10         1.00           Benzoic Acid         ND         50         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         10         1.00           Bis(2-Chloroispropyl) Ether         ND         10         1.00           Bis(2-Chloroispropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           Chrysene         ND         10         1.00<	Benzo (a) Pyrene		ND	10		1.00		
Benzo (k) Fluoranthene         ND         10         1.00           Benzoic Acid         ND         50         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethyl) Bis (2-Chloroethyl) Ether         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         10         1.00           Bis (2-Chlorostopropyl) Ether         ND         10         1.00           Bis (2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           Chrysene         ND         10         1.00           Chrysene         ND         10         1.00           DiButyl Phthalate         ND         10         1.00	Benzo (b) Fluoranthene		ND	10		1.00		
Benzoic Acid         ND         50         1.00           Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         25         1.00           Bis(2-Ehylhexyl) Phthalate         ND         10         1.00           Bis(2-Ehylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenol         ND         10         1.00           4-Chlorophenol         ND         10         1.00           2-Chlorophenyl-Phenyl Ether         ND         10         1.00           Chrysene         ND         10         1.00           2-Dichlorophenol         ND         10         1.00           Di-n-Butyl Phthalate         ND         10         1.00           Di-n-Butyl Phthalate         ND         10         1.00 <t< td=""><td>Benzo (g,h,i) Perylene</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></t<>	Benzo (g,h,i) Perylene		ND	10		1.00		
Benzyl Alcohol         ND         10         1.00           Bis(2-Chloroethxy) Methane         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         25         1.00           Bis(2-Chloroisopropyl) Ether         ND         10         1.00           Bis(2-Ethylhxyl) Phthalate         ND         10         1.00           Bis(2-Ethylhxyl) Phthalate         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Benzyl Ether         ND         10         1.00           2-Chlorophenyl-Phenyl Ether         ND         10         1.00           2-Chlorophenol         ND         10         1.00           2-Folichlorophenol         ND         10         1.00           Di-n-Butyl Phthalate         ND         10         1.00           Di-n-Cytyl Phthalate         ND         10         1.00           Dibenzofuran         ND         10         1.00 <td>Benzo (k) Fluoranthene</td> <td></td> <td>ND</td> <td>10</td> <td></td> <td>1.00</td> <td></td> <td></td>	Benzo (k) Fluoranthene		ND	10		1.00		
Bis(2-Chloroethoxy) Methane         ND         10         1.00           Bis(2-Chloroethyl) Ether         ND         25         1.00           Bis(2-Chloroisopropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloroaniline         ND         10         1.00           2-Chloroaphthalene         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           4-Chlorophenol         ND         10         1.00           Chrysene         ND         10         1.00           2,6-Dichlorophenol         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00 <tr< td=""><td>Benzoic Acid</td><td></td><td>ND</td><td>50</td><td></td><td>1.00</td><td></td><td></td></tr<>	Benzoic Acid		ND	50		1.00		
Bis(2-Chloroethyl) Ether         ND         25         1.00           Bis(2-Chloroisopropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloroanlline         ND         10         1.00           2-Chloroaphthalene         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           4-Chlorophenol         ND         10         1.00           2-G-Dichlorophenol         ND         10         1.00           Di-n-Butyl Phthalate         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           1,2-Dichlorobenzene         ND         10         1.00	Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethyl) Ether         ND         25         1.00           Bis(2-Chloroisopropyl) Ether         ND         10         1.00           Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloroanilline         ND         10         1.00           2-Chloroaphthalene         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           4-Chlorophenol         ND         10         1.00           2-G-Dichlorophenol         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           1,2-Dichlorobenzene         ND         10         1.00	Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate         ND         10         1.00           4-Bromophenyl-Phenyl Ether         ND         10         1.00           Butyl Benzyl Phthalate         ND         10         1.00           4-Chloro-3-Methylphenol         ND         10         1.00           4-Chloroaniline         ND         10         1.00           2-Chlorophenol         ND         10         1.00           2-Chlorophenol         ND         10         1.00           4-Chlorophenyl-Phenyl Ether         ND         10         1.00           Chrysene         ND         10         1.00           2,6-Dichlorophenol         ND         10         1.00           Di-n-Butyl Phthalate         ND         10         1.00           Di-n-Octyl Phthalate         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           Dibenz (a,h) Anthracene         ND         10         1.00           1,2-Dichlorobenzene         ND         10         1.00           1,2-Dichlorobenzene         ND         10         1.00           1,4-Dichlorobenzene         ND         10         1.00           1,4			ND	25		1.00		
4-Bromophenyl-Phenyl Ether       ND       10       1.00         Butyl Benzyl Phthalate       ND       10       1.00         4-Chloro-3-Methylphenol       ND       10       1.00         4-Chloroaphthalene       ND       10       1.00         2-Chlorophenol       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         4-Chlorophenol       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Cotyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzeidine       ND       10       1.00	Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
4-Bromophenyl-Phenyl Ether       ND       10       1.00         Butyl Benzyl Phthalate       ND       10       1.00         4-Chloro-3-Methylphenol       ND       10       1.00         4-Chloroaphthalene       ND       10       1.00         2-Chlorophenol       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         4-Chlorophenol       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Cytyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzeidine       ND       10       1.00	Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
Butyl Benzyl Phthalate       ND       10       1.00         4-Chloro-3-Methylphenol       ND       10       1.00         4-Chloroaphthalene       ND       10       1.00         2-Chlorophenol       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzidine       ND       10       1.00			ND	10		1.00		
4-Chloroaniline       ND       10       1.00         2-Chloronaphthalene       ND       10       1.00         2-Chlorophenol       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00			ND	10		1.00		
4-Chloroaniline       ND       10       1.00         2-Chlorophenol       ND       10       1.00         2-Chlorophenyl-Phenyl Ether       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzidine       ND       10       1.00	4-Chloro-3-Methylphenol		ND	10		1.00		
2-Chlorophenol       ND       10       1.00         4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00			ND	10		1.00		
4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	2-Chloronaphthalene		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether       ND       10       1.00         Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	2-Chlorophenol		ND	10		1.00		
Chrysene       ND       10       1.00         2,6-Dichlorophenol       ND       10       1.00         Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00			ND	10		1.00		
Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00						1.00		
Di-n-Butyl Phthalate       ND       10       1.00         Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	2,6-Dichlorophenol		ND	10		1.00		
Di-n-Octyl Phthalate       ND       10       1.00         Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	Di-n-Butyl Phthalate		ND			1.00		
Dibenz (a,h) Anthracene       ND       10       1.00         Dibenzofuran       ND       10       1.00         1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	·							
Dibenzofuran         ND         10         1.00           1,2-Dichlorobenzene         ND         10         1.00           1,3-Dichlorobenzene         ND         10         1.00           1,4-Dichlorobenzene         ND         10         1.00           3,3'-Dichlorobenzidine         ND         25         1.00	Dibenz (a,h) Anthracene		ND	10		1.00		
1,2-Dichlorobenzene       ND       10       1.00         1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00	( ' '							
1,3-Dichlorobenzene       ND       10       1.00         1,4-Dichlorobenzene       ND       10       1.00         3,3'-Dichlorobenzidine       ND       25       1.00								
1,4-Dichlorobenzene ND 10 1.00 3,3'-Dichlorobenzidine ND 25 1.00								
3,3'-Dichlorobenzidine ND 25 1.00	·							
	·							
	2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

Project: CG Roxane / SB0794				Page 8 of 9
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

2,4,5-Trichlorophenol

10

1.00

ND



Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 9

<u>Surrogate</u>	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 5030C EPA 8260B

09/09/16

Units:

ug/L Page 1 of 8

Project: CG Roxane / SB0794

Time QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-04-090816	16-09-0591-1-B	09/08/16 00:00	Aqueous	GC/MS XX	09/10/16	09/10/16 15:35	160910L024
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 2 of 8

Troject: Oo Roxane / Oboro+				1 age 2 61 6
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	95	78-126		
1,2-Dichloroethane-d4	102	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 5030C EPA 8260B

09/09/16

Units: ug/L

Project: CG Roxane / SB0794 Page 3 of 8 Date/Time Lab Sample Date/Time QC Batch ID Client Sample Number Matrix Instrument Date Prepared Number Collected Analyzed 09/10/16 04:12 09/08/16 13:00 QCEB-04-090816 16-09-0591-3-A Aqueous **GC/MS XX** 09/09/16 160909L045 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00

RL: Reporting Limit.

t-1,2-Dichloroethene

1,2-Dichloropropane1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.0

1.0

1.0

1.00

1.00

1.00

1.00

ND

ND

ND

ND



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 4 of 8

				9
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	95	80-120		
Dibromofluoromethane	89	78-126		
1,2-Dichloroethane-d4	99	75-135		
Toluene-d8	98	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

09/09/16 16-09-0591 EPA 5030C EPA 8260B

ug/L Page 5 of 8

Project: CG Roxane / SB0794

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-2958	N/A	Aqueous	GC/MS XX	09/09/16	09/10/16 00:56	160909L045
Parameter		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0		1.00		
c-1,2-Dichloroethene		ND	1.0		1.00		
t-1,2-Dichloroethene		ND	1.0		1.00		
1,2-Dichloropropane		ND	1.0		1.00		
1,3-Dichloropropane		ND	1.0		1.00		
2,2-Dichloropropane		ND	1.0		1.00		

RL: Reporting Limit. DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane / SB0794
 Page 6 of 8

Project: CG Roxane / SB0794				Page 6 of 8		
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers		
1,1-Dichloropropene	ND	1.0	1.00			
c-1,3-Dichloropropene	ND	0.50	1.00			
t-1,3-Dichloropropene	ND	0.50	1.00			
Ethylbenzene	ND	1.0	1.00			
2-Hexanone	ND	10	1.00			
Isopropylbenzene	ND	1.0	1.00			
p-Isopropyltoluene	ND	1.0	1.00			
Methylene Chloride	ND	10	1.00			
4-Methyl-2-Pentanone	ND	10	1.00			
Naphthalene	ND	10	1.00			
n-Propylbenzene	ND	1.0	1.00			
Styrene	ND	1.0	1.00			
1,1,1,2-Tetrachloroethane	ND	1.0	1.00			
1,1,2,2-Tetrachloroethane	ND	1.0	1.00			
Tetrachloroethene	ND	1.0	1.00			
Toluene	ND	1.0	1.00			
1,2,3-Trichlorobenzene	ND	1.0	1.00			
1,2,4-Trichlorobenzene	ND	1.0	1.00			
1,1,1-Trichloroethane	ND	1.0	1.00			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00			
1,1,2-Trichloroethane	ND	1.0	1.00			
Trichloroethene	ND	1.0	1.00			
Trichlorofluoromethane	ND	10	1.00			
1,2,3-Trichloropropane	ND	5.0	1.00			
1,2,4-Trimethylbenzene	ND	1.0	1.00			
1,3,5-Trimethylbenzene	ND	1.0	1.00			
Vinyl Acetate	ND	10	1.00			
Vinyl Chloride	ND	0.50	1.00			
p/m-Xylene	ND	1.0	1.00			
o-Xylene	ND	1.0	1.00			
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00			
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>			
1,4-Bromofluorobenzene	97	80-120				
Dibromofluoromethane	95	78-126				
1,2-Dichloroethane-d4	98	75-135				
Toluene-d8	98	80-120				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 5030C EPA 8260B

09/09/16

ug/L

Units:

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Project: CG Roxane / SB0794

Date/Time Collected Date/Time Lab Sample QC Batch ID Client Sample Number Matrix Instrument Date Prepared Number Analyzed 09/10/16 15:07 **Method Blank** 099-14-316-2965 N/A Aqueous **GC/MS XX** 09/10/16 160910L024 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00

RL: Reporting Limit.

1,2-Dichloropropane1,3-Dichloropropane

2,2-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

1.0

1.0

1.0

1.00

1.00

1.00

ND

ND

ND



 Geosyntec Consultants
 Date Received:
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 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: CG Roxane / SB0794				Page 8 of 8
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	94	80-120		
Dibromofluoromethane	94	78-126		
1,2-Dichloroethane-d4	101	75-135		
Toluene-d8	97	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order:

09/09/16 16-09-0591

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Client Sample Number			Lab S	Sample Number	•	Date/Tir	ne Collected	Matrix
QCEB-04-090816			16-09	9-0591-3		09/08/1	6 13:00	Aqueous
Parameter	<u>Results</u>	<u>RL</u>	DF	<u>Qualifiers</u>	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	Method
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Method Blank						N/A		Aqueous	
Parameter	<u>Results</u>	<u>RL</u>	<u>DF</u>	Qualifiers	<u>Units</u>	<u>Date</u> Prepared	<u>Date</u> <u>Analyzed</u>	Method	
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B	
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B	
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C	
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B	
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E	
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C	
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E	
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C	



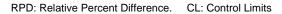


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Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0591
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
EPA 300.0

Project: CG Roxane / SB0794 Page 1 of 12

Quality Control Sample ID	Туре	Туре		Matrix Ins		Date Prepared	Date Ana	Date Analyzed		MS/MSD Batch Number	
16-09-0590-3	Sample	Sample		s IC	10	N/A	09/10/16	02:03	160909S02		
16-09-0590-3	Matrix Spike		Aqueou	s IC	10	N/A	09/10/16	05:16	160909S02		
16-09-0590-3	Matrix Spike	Duplicate	Aqueou	s IC	10	N/A	09/10/16	05:35	160909S02		
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers	
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20		
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3	





 Geosyntec Consultants
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 924 Anacapa Street, Suite 4A
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 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 4500 P B/E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Analyzed		MS/MSD Batch Number	
16-09-0478-3	Sample		Aqueous	UV	7	09/09/16	09/09/16	21:42	G0909TPS1	
16-09-0478-3	Matrix Spike		Aqueous	uV UV	7	09/09/16	09/09/16	21:42	G0909TPS1	
16-09-0478-3	Matrix Spike I	Duplicate	Aqueous	uV.	7	09/09/16	09/09/16	21:42	G0909TPS1	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	



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924 Anacapa Street, Suite 4A
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Date Received:
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Preparation:
Method:

16-09-0591 N/A

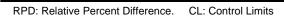
SM 4500 P B/E

09/09/16

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Project: CG	Roxane /	SB0794
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Quality Control Sample ID	Туре		Matrix	Matrix Ins		Date Prepared	Date Analyzed		MS/MSD Batch Numbe	
16-09-0478-3	Sample		Aqueous	Aqueous UV 7		09/09/16	09/09/16	21:42	G0909PO4S	1
16-09-0478-3	Matrix Spike		Aqueous	s UV	7	09/09/16	09/09/16	21:42	G0909PO4S	1
16-09-0478-3	Matrix Spike	Duplicate	Aqueous	s UV	7	09/09/16	09/09/16	21:42	G0909PO4S	1
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	





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 Preparation:
 N/A

 Method:
 SM 4500-NO3 E

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix Ir		strument	Date Prepared	Date Ana	lyzed	MS/MSD Batch Numb	
16-09-0590-7	Sample		Aqueou	s U	V 7	09/13/16	09/13/16	18:52	G0913NO35	<b>31</b>
16-09-0590-7	Matrix Spike		Aqueou	s U	V 7	09/13/16	09/13/16	18:52	G0913NO35	<b>S1</b>
16-09-0590-7	Matrix Spike	Duplicate	Aqueou	s U	V 7	09/13/16	09/13/16	18:52	G0913NO35	<b>31</b>
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.1375	0.5000	0.6208	97	0.6133	95	70-130	1	0-25	







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 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 SM 5540C

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepared	Date Analyzed		MS/MSD Batch Number	
QCEB-04-090816	Sample		Aqueous	UV	8	09/09/16	09/09/16	14:38	G0909SURS	:1
QCEB-04-090816	Matrix Spike		Aqueous	. UV	8	09/09/16	09/09/16	14:38	G0909SURS	1
QCEB-04-090816	Matrix Spike D	Ouplicate	Aqueous	. UV	8	09/09/16	09/09/16	14:38	G0909SURS	1
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.073	107	1.035	103	70-130	4	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

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EPA 200.7

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
16-09-0748-1	Sample		Aqueou	ıs IC	P 7300	09/13/16	09/14/16	13:44	160913SA6	A
16-09-0748-1	Matrix Spike		Aqueou	us IC	P 7300	09/13/16	09/14/16	13:46	160913SA6	A
16-09-0748-1	Matrix Spike	Duplicate	Aqueou	us IC	P 7300	09/13/16	09/14/16	13:47	160913SA6	A
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	148.8	0.5000	140.6	4X	140.7	4X	80-120	4X	0-20	Q
Magnesium	63.82	0.5000	61.54	4X	63.33	4X	80-120	4X	0-20	Q
Sodium	855.3	5.000	828.5	4X	838.1	4X	80-120	4X	0-20	Q



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 3020A Total EPA 6020

09/09/16

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Quality Control Sample ID	Туре		Matrix	ı	Instrument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	ch Number
16-09-0542-1	Sample		Aqueous	s I	ICP/MS 03	09/14/16	09/15/16	14:46	160914SA8	
16-09-0542-1	Matrix Spike		Aqueous	s I	ICP/MS 03	09/14/16	09/15/16	14:31	160914SA8	
16-09-0542-1	Matrix Spike I	Ouplicate	Aqueous	s I	ICP/MS 03	09/14/16	09/15/16	14:33	160914SA8	
<u>Parameter</u>	Sample Conc.	Spike Added	MS Conc.	MS %Red	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.09549	95	0.1027	103	85-133	7	0-11	
Arsenic	ND	0.1000	0.09889	99	0.1070	107	73-127	8	0-11	
Barium	0.06165	0.1000	0.1626	101	0.1609	99	74-128	1	0-10	
Beryllium	ND	0.1000	0.08109	81	0.08812	88	56-122	8	0-11	
Cadmium	0.001161	0.1000	0.09320	92	0.09993	99	84-114	7	0-8	
Chromium	0.001132	0.1000	0.08250	81	0.08737	86	73-133	6	0-11	
Cobalt	ND	0.1000	0.09703	97	0.1043	104	79-121	7	0-10	
Copper	0.004260	0.1000	0.09537	91	0.09999	96	72-108	5	0-10	
Lead	0.001368	0.1000	0.1171	116	0.1253	124	79-121	7	0-10	3
Molybdenum	0.006413	0.1000	0.1287	122	0.1359	130	83-137	5	0-10	
Nickel	0.006338	0.1000	0.1016	95	0.1074	101	68-122	6	0-10	
Selenium	ND	0.1000	0.09360	94	0.1035	103	59-125	10	0-12	
Silver	ND	0.05000	0.05260	105	0.05118	102	68-128	3	0-14	
Thallium	ND	0.1000	0.1107	111	0.1202	120	73-121	8	0-11	
Vanadium	ND	0.1000	0.1044	104	0.1137	114	77-137	9	0-15	
Zinc	0.02181	0.1000	0.1034	82	0.09984	78	43-145	4	0-39	

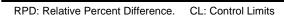




Geosyntec ConsultantsDate Received:09/09/16924 Anacapa Street, Suite 4AWork Order:16-09-0591Santa Barbara, CA 93101-2177Preparation:EPA 7470A TotalMethod:EPA 7470A

Project: CG Roxane / SB0794 Page 8 of 12

Quality Control Sample ID	Type		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
16-09-0445-7	Sample		Sea Wate	er Me	ercury 04	09/15/16	09/15/16	19:38	160915SA2	
16-09-0445-7	Matrix Spike		Sea Wate	er Me	ercury 04	09/15/16	09/15/16	19:40	160915SA2	
16-09-0445-7	Matrix Spike	Duplicate	Sea Wate	er Me	ercury 04	09/15/16	09/15/16	19:47	160915SA2	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.007980	80	0.007872	2 79	55-133	1	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 EPA 5030C EPA 8260B

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	llyzed	MS/MSD Ba	tch Number
16-09-0559-1	Sample		Aqueous	GC	C/MS XX	09/09/16	09/10/16	01:24	160909S03	3
16-09-0559-1	Matrix Spike		Aqueous	GC	C/MS XX	09/09/16	09/10/16	01:52	160909803	3
16-09-0559-1	Matrix Spike	Duplicate	Aqueous	GC	C/MS XX	09/09/16	09/10/16	02:20	160909803	3
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	52.75	105	56.88	114	22-178	8	0-26	
Benzene	100.1	50.00	146.7	93	143.8	87	70-130	2	0-20	
Bromobenzene	ND	50.00	52.19	104	51.89	104	70-130	1	0-20	
Bromochloromethane	ND	50.00	49.31	99	50.27	101	70-132	2	0-20	
Bromodichloromethane	1.721	50.00	46.24	89	46.76	90	69-135	1	0-20	
Bromoform	ND	50.00	38.13	76	38.79	78	70-133	2	0-20	
Bromomethane	ND	50.00	34.99	70	50.36	101	11-167	36	0-32	4
2-Butanone	ND	50.00	48.43	97	49.39	99	39-159	2	0-21	
n-Butylbenzene	ND	50.00	43.23	86	40.35	81	62-152	7	0-28	
sec-Butylbenzene	ND	50.00	48.71	97	45.58	91	70-143	7	0-24	
tert-Butylbenzene	ND	50.00	48.97	98	47.23	94	70-140	4	0-20	
Carbon Disulfide	ND	50.00	44.79	90	45.60	91	54-138	2	0-23	
Carbon Tetrachloride	ND	50.00	44.39	89	42.90	86	63-153	3	0-22	
Chlorobenzene	ND	50.00	51.74	103	51.46	103	70-130	1	0-20	
Chloroethane	ND	50.00	44.73	89	40.03	80	44-140	11	0-32	
Chloroform	1.269	50.00	47.20	92	47.77	93	68-134	1	0-20	
Chloromethane	ND	50.00	42.50	85	43.81	88	20-158	3	0-40	
2-Chlorotoluene	ND	50.00	51.14	102	50.17	100	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	51.20	102	50.49	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.78	86	43.54	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	44.76	90	45.70	91	67-133	2	0-20	
1,2-Dibromoethane	ND	50.00	49.74	99	50.37	101	70-130	1	0-20	
Dibromomethane	ND	50.00	47.85	96	48.50	97	70-130	1	0-20	
1,2-Dichlorobenzene	ND	50.00	51.18	102	50.94	102	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	50.72	101	50.12	100	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.54	103	49.78	100	70-130	3	0-20	
Dichlorodifluoromethane	ND	50.00	36.79	74	32.86	66	10-190	11	0-40	
1,1-Dichloroethane	ND	50.00	46.35	93	46.37	93	64-130	0	0-20	
1,2-Dichloroethane	2.849	50.00	48.16	91	49.18	93	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	46.08	92	46.03	92	51-153	0	0-21	
c-1,2-Dichloroethene	ND	50.00	47.20	94	48.03	96	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	45.95	92	46.90	94	68-134	2	0-20	
1,2-Dichloropropane	1.123	50.00	51.81	101	51.89	102	70-130	0	0-20	
1,3-Dichloropropane	ND	50.00	49.49	99	50.24	100	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	33.10	66	32.56	65	37-169	2	0-23	
,								_		



Geosyntec Consultants
Date Received:

924 Anacapa Street, Suite 4A
Work Order:
16-09-0591
Santa Barbara, CA 93101-2177
Preparation:
EPA 5030C
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EPA 8260B

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<u>Parameter</u>	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	49.82	100	48.62	97	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	46.02	92	46.05	92	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.91	92	46.75	93	58-136	2	0-20	
Ethylbenzene	48.76	50.00	103.2	109	99.42	101	70-134	4	0-24	
2-Hexanone	ND	50.00	52.31	105	52.44	105	59-149	0	0-20	
Isopropylbenzene	1.775	50.00	54.79	106	52.96	102	70-141	3	0-27	
p-Isopropyltoluene	ND	50.00	48.88	98	45.17	90	65-143	8	0-39	
Methylene Chloride	ND	50.00	47.45	95	48.12	96	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	53.95	108	54.61	109	67-139	1	0-20	
Naphthalene	ND	50.00	59.12	118	62.06	124	61-139	5	0-20	
n-Propylbenzene	3.643	50.00	46.50	86	45.62	84	70-140	2	0-24	
Styrene	ND	50.00	51.63	103	51.06	102	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.20	98	48.93	98	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	36.50	73	35.13	70	70-137	4	0-20	
Tetrachloroethene	ND	50.00	64.50	129	63.65	127	33-147	1	0-30	
Toluene	10.24	50.00	64.97	109	63.16	106	70-130	3	0-20	
1,2,3-Trichlorobenzene	ND	50.00	58.16	116	56.55	113	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	57.61	115	54.58	109	60-144	5	0-24	
1,1,1-Trichloroethane	ND	50.00	45.98	92	45.48	91	68-140	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	49.80	100	44.24	88	21-190	12	0-40	
1,1,2-Trichloroethane	1.399	50.00	48.37	94	48.99	95	70-130	1	0-20	
Trichloroethene	ND	50.00	57.96	116	58.84	118	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	47.35	95	43.36	87	54-162	9	0-30	
1,2,3-Trichloropropane	ND	50.00	48.42	97	48.24	96	67-130	0	0-20	
1,2,4-Trimethylbenzene	6.710	50.00	57.54	102	56.03	99	70-133	3	0-20	
1,3,5-Trimethylbenzene	7.728	50.00	58.73	102	56.98	99	70-139	3	0-20	
Vinyl Acetate	ND	50.00	21.09	42	20.81	42	10-190	1	0-40	
Vinyl Chloride	ND	50.00	45.14	90	44.75	90	59-137	1	0-20	
p/m-Xylene	49.96	100.0	150.5	101	146.1	96	67-145	3	0-28	
o-Xylene	4.003	50.00	54.69	101	53.82	100	70-142	2	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	45.12	90	46.35	93	69-130	3	0-20	



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Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	I Date Ana	llyzed	MS/MSD Ba	atch Number
16-09-0657-2	Sample		Aqueous	GC	/MS XX	09/10/16	09/10/16	16:03	160910S01	3
16-09-0657-2	Matrix Spike		Aqueous	GC	MS XX	09/10/16	09/10/16	16:34	160910S01	3
16-09-0657-2	Matrix Spike	Duplicate	Aqueous	GC	MS XX	09/10/16	09/10/16	17:02	160910S01	3
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	49.67	99	52.43	105	22-178	5	0-26	
Benzene	ND	50.00	52.36	105	52.75	105	70-130	1	0-20	
Bromobenzene	ND	50.00	54.41	109	54.24	108	70-130	0	0-20	
Bromochloromethane	ND	50.00	53.37	107	54.31	109	70-132	2	0-20	
Bromodichloromethane	ND	50.00	45.64	91	46.07	92	69-135	1	0-20	
Bromoform	ND	50.00	33.91	68	35.40	71	70-133	4	0-20	3
Bromomethane	ND	50.00	47.18	94	48.55	97	11-167	3	0-32	
2-Butanone	ND	50.00	50.06	100	50.83	102	39-159	2	0-21	
n-Butylbenzene	ND	50.00	54.87	110	54.80	110	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	53.63	107	53.50	107	70-143	0	0-24	
tert-Butylbenzene	ND	50.00	54.17	108	54.96	110	70-140	1	0-20	
Carbon Disulfide	ND	50.00	43.98	88	45.97	92	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	46.99	94	46.51	93	63-153	1	0-22	
Chlorobenzene	ND	50.00	53.60	107	53.44	107	70-130	0	0-20	
Chloroethane	ND	50.00	46.39	93	49.36	99	44-140	6	0-32	
Chloroform	ND	50.00	50.85	102	51.31	103	68-134	1	0-20	
Chloromethane	ND	50.00	43.35	87	48.29	97	20-158	11	0-40	
2-Chlorotoluene	ND	50.00	53.73	107	52.87	106	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	49.84	100	50.59	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.68	85	43.71	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	39.80	80	42.12	84	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	52.02	104	51.40	103	70-130	1	0-20	
Dibromomethane	ND	50.00	49.35	99	49.45	99	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.60	103	51.76	104	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.34	103	51.98	104	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.34	103	51.56	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	44.07	88	45.05	90	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	50.96	102	51.35	103	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	46.53	93	46.63	93	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	50.51	101	50.77	102	51-153	1	0-21	
c-1,2-Dichloroethene	ND	50.00	51.80	104	52.59	105	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	49.09	98	50.79	102	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	53.47	107	52.78	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	53.29	107	53.54	107	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	48.14	96	47.52	95	37-169	1	0-23	



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<u>Parameter</u>	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	55.53	111	55.79	112	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	46.59	93	46.46	93	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.93	92	46.56	93	58-136	1	0-20	
Ethylbenzene	ND	50.00	53.80	108	53.79	108	70-134	0	0-24	
2-Hexanone	ND	50.00	50.73	101	53.67	107	59-149	6	0-20	
Isopropylbenzene	ND	50.00	55.27	111	54.33	109	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	54.20	108	54.25	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	50.37	101	50.95	102	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	52.80	106	54.41	109	67-139	3	0-20	
Naphthalene	ND	50.00	49.60	99	54.23	108	61-139	9	0-20	
n-Propylbenzene	ND	50.00	48.86	98	48.07	96	70-140	2	0-24	
Styrene	ND	50.00	54.49	109	54.14	108	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.37	99	49.42	99	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.61	105	54.21	108	70-137	3	0-20	
Tetrachloroethene	ND	50.00	47.31	95	46.13	92	33-147	3	0-30	
Toluene	ND	50.00	53.48	107	53.42	107	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	51.48	103	52.85	106	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.64	107	54.26	109	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	49.08	98	48.94	98	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	59.64	119	58.17	116	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.78	104	52.58	105	70-130	2	0-20	
Trichloroethene	ND	50.00	50.47	101	50.12	100	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	53.85	108	54.33	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	50.43	101	50.10	100	67-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	51.38	103	51.83	104	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.16	110	54.04	108	70-139	2	0-20	
Vinyl Acetate	ND	50.00	20.41	41	20.38	41	10-190	0	0-40	
Vinyl Chloride	ND	50.00	45.92	92	48.64	97	59-137	6	0-20	
p/m-Xylene	ND	100.0	103.7	104	102.7	103	67-145	1	0-28	
o-Xylene	ND	50.00	51.97	104	51.61	103	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.03	92	47.70	95	69-130	4	0-20	



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Quality Control Sample ID	Туре	N	Matrix	Instrument	Date Prepared I	Date Analyzed	PDS/PDSD Batch Number	
16-09-0542-1	Sample	-	Aqueous	ICP/MS 03	09/14/16 00:00	09/15/16 14:46	160914SA8	
16-09-0542-1	PDS		Aqueous	ICP/MS 03	09/14/16 00:00	09/15/16 14:36	160914SA8	
<u>Parameter</u>		Sample Conc.	Spike Added	PDS Conc	. PDS %Red	<u>%Rec. C</u>	<u> Qualifiers</u>	
Antimony		ND	0.1000	0.09945	99	75-125		
Arsenic		ND	0.1000	0.09816	98	75-125		
Barium		0.06165	0.1000	0.1591	97	75-125		
Beryllium		ND	0.1000	0.08277	83	75-125		
Cadmium		0.001161	0.1000	0.09421	93	75-125		
Chromium		0.001132	0.1000	0.08410	83	75-125		
Cobalt		ND	0.1000	0.09899	99	75-125		
Copper		0.004260	0.1000	0.09564	91	75-125		
Lead		0.001368	0.1000	0.1174	116	75-125		
Molybdenum		0.006413	0.1000	0.1277	121	75-125		
Nickel		0.006338	0.1000	0.1012	95	75-125		
Selenium		ND	0.1000	0.09533	95	75-125		
Silver		ND	0.05000	0.05085	102	75-125		
Thallium		ND	0.1000	0.1140	114	75-125		
Vanadium		ND	0.1000	0.1060	106	75-125		
Zinc		0.02181	0.1000	0.1017	80	75-125		





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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910HCOD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		ND	ND	N/A	0-25	



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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	Sample	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
16-09-0242-1	Sample Duplicate	Aqueous	PH1/BUR16	N/A	09/10/16 11:15	G0910ALKD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		ND	ND	N/A	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 N/A

SM 2540 C

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0420-8	Sample	Aqueous	N/A	09/14/16 00:00	09/14/16 18:00	G0914TDSD3
16-09-0420-8	Sample Duplicate	Aqueous	N/A	09/14/16 00:00	0 09/14/16 18:00	G0914TDSD3
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1980	2000	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: 09/09/16 16-09-0591 N/A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-1085-1	Sample	Aqueous	BUR05	09/16/16 00:00	09/16/16 15:05	G0916TKND1
16-09-1085-1	Sample Duplicate	Aqueous	BUR05	09/16/16 00:00	09/16/16 15:05	G0916TKND1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	<u>Qualifiers</u>
Total Kjeldahl Nitrogen		1.470	1.680	13	0-25	

N/A



## **Quality Control - LCS**

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Quality Control Sample ID	Туре	Matrix	Instrument	Date	Prepared Date	Analyzed	LCS Batch I	Number
099-12-906-6933	LCS	Aqueous	IC 10	N/A	09/09	9/16 21:53	160909L02	
<u>Parameter</u>		Spike Added	Conc. Recov	<u>rered</u>	LCS %Rec.	%Rec	. <u>CL</u>	Qualifiers
Chloride		50.00	49.96		100	90-110	)	
Sulfate		50.00	50.82		102	90-110	)	







Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 N/A

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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Prep	pared Date	Analyzed	LCS/LCSD Ba	tch Number
099-15-981-182	LCS	Aqu	ieous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB1	
099-15-981-182	LCSD	Aqu	ieous	PH1/BUR16	N/A	09/1	0/16 11:15	G0910ALKB1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	



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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-180-5244	LCS	Aqu	ieous	N/A	09/14/16	09/1	4/16 18:00	G0914TDSB3	3
099-12-180-5244	LCSD	Aqu	ieous	N/A	09/14/16	09/1	4/16 18:00	G0914TDSB3	3
Parameter	Spike Added L	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	80.00	80	85.00	85	80-120	6	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-05-098-2789	LCS	Aqı	ieous	UV 7	09/09/16	09/09	9/16 21:42	G0909TPL1	
099-05-098-2789	LCSD	Aqı	ieous	UV 7	09/09/16	09/09	9/16 21:42	G0909TPL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	





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Quality Control Sample ID	Type	Mat	rix	Instrument	Date Prep	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-276-203	LCS	Aqu	ieous	UV 7	09/09/16	09/0	9/16 21:42	G0909PO4L1	
099-14-276-203	LCSD	Aqu	ieous	UV 7	09/09/16	09/0	9/16 21:42	G0909PO4L1	
Parameter	Spike Added L	CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220 1	1.281	105	1.209	99	80-120	6	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: Work Order: Preparation: 09/09/16 16-09-0591 N/A

Method: SM 4500-NH3 B/C

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-814-2433	LCS	Aqu	eous	BUR05	09/16/16	09/1	6/16 15:46	G0916NH3L1	
099-12-814-2433	LCSD	Aqu	eous	BUR05	09/16/16	09/1	6/16 15:46	G0916NH3L1	
Parameter	Spike Added LO	CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000 4.	.368	87	4.452	89	80-120	2	0-20	



09/09/16 16-09-0591

N/A





Project: CG Roxane / SB0794

## **Quality Control - LCS/LCSD**

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received:
Work Order:
Preparation:

Method: SM 4500-NO3 E Page 7 of 20

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-441	LCS	Aqı	ieous	UV 7	09/13/16	09/1	3/16 18:52	G0913NO3L1	
099-14-282-441	LCSD	Aqı	ieous	UV 7	09/13/16	09/1	3/16 18:52	G0913NO3L1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5171	103	0.5244	105	80-120	1	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 N/A

SM 5540C

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Dat	e Analyzed	LCS/LCSD Ba	tch Number
099-05-093-3142	LCS	Aqı	ieous	UV 8	09/09/16	09/0	09/16 14:38	G0909SURL1	
099-05-093-3142	LCSD	Aqı	ieous	UV 8	09/09/16	09/0	09/16 14:38	G0909SURL1	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
MBAS	1.000	1.050	105	1.013	101	80-120	4	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 N/A

09/09/16

EPA 200.7

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument D	Date Prepared Dat	e Analyzed LCS Ba	atch Number
097-01-012-6682	LCS	Aqueous	ICP 7300 0	09/13/16 09/	15/16 16:40 160913	BLA6
<u>Parameter</u>		Spike Added	Conc. Recovered	d LCS %Rec.	%Rec. CL	Qualifiers
Calcium		0.5000	0.5532	111	85-115	
Magnesium		0.5000	0.4828	97	85-115	
Sodium		5.000	4.823	96	85-115	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 3020A Total EPA 6020

09/09/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepa	red Date Analyze	ed LCS Batch N	umber
096-06-003-5319	LCS	Aqueou	s ICP/MS 03	09/14/16	09/15/16 14:	23 160914LA8	
<u>Parameter</u>	<u>s</u>	pike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0	.1000	0.1022	102	80-120	73-127	
Arsenic	0	.1000	0.1029	103	80-120	73-127	
Barium	0	.1000	0.09782	98	80-120	73-127	
Beryllium	0	.1000	0.1015	102	80-120	73-127	
Cadmium	0	.1000	0.1033	103	80-120	73-127	
Chromium	0	.1000	0.09906	99	80-120	73-127	
Cobalt	0	.1000	0.1057	106	80-120	73-127	
Copper	0	.1000	0.1101	110	80-120	73-127	
Lead	0	.1000	0.1061	106	80-120	73-127	
Molybdenum	0	.1000	0.1088	109	80-120	73-127	
Nickel	0	.1000	0.1092	109	80-120	73-127	
Selenium	0	.1000	0.1034	103	80-120	73-127	
Silver	0	.05000	0.05541	111	80-120	73-127	
Thallium	0	.1000	0.1010	101	80-120	73-127	
Vanadium	0	.1000	0.1044	104	80-120	73-127	
Zinc	0	.1000	0.09959	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 EPA 3005A Filt. EPA 6020

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepa	red Date Analyze	ed LCS Batch No	umber
099-15-693-1210	LCS	Aqueou	s ICP/MS 03	09/14/16	09/15/16 14:	23 160914LA8F	
<u>Parameter</u>	2	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	(	0.1000	0.1022	102	80-120	73-127	
Arsenic	(	0.1000	0.1029	103	80-120	73-127	
Barium	(	0.1000	0.09782	98	80-120	73-127	
Beryllium	(	0.1000	0.09193	92	80-120	73-127	
Cadmium	(	0.1000	0.1033	103	80-120	73-127	
Chromium	(	0.1000	0.09906	99	80-120	73-127	
Cobalt	(	0.1000	0.09572	96	80-120	73-127	
Copper	(	0.1000	0.09969	100	80-120	73-127	
Lead	(	0.1000	0.1061	106	80-120	73-127	
Molybdenum	(	0.1000	0.1088	109	80-120	73-127	
Nickel	(	0.1000	0.09877	99	80-120	73-127	
Selenium	(	0.1000	0.1034	103	80-120	73-127	
Silver	(	0.05000	0.05541	111	80-120	73-127	
Thallium	(	0.1000	0.1010	101	80-120	73-127	
Vanadium	(	0.1000	0.09453	95	80-120	73-127	
Zinc	(	0.1000	0.09959	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Total

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7974	LCS	Aqueous	Mercury 04	09/15/16	09/15/16 19:36	160915LA2
<u>Parameter</u>		Spike Added	Conc. Recover	red LCS %R	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.009122	91	80-120	0



 Geosyntec Consultants
 Date Received:
 09/09/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0591

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 7470A Filt.

 Method:
 EPA 7470A

 Project: CG Roxane / SB0794
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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-825	LCS	Aqueous	Mercury 04	09/15/16	09/15/16 19:36	160915LA2F
<u>Parameter</u>		Spike Added	Conc. Recover	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.009122	91	80-12	0



# **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 EPA 3510C EPA 8270C

Project: CG Roxane / SB0794

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Quality Control Sample ID Type			Matrix Instrument			Date Prepare	ed Date A	nalyzed	LCS/LCSD Batch Number		
099-02-008-63	LCS		Aqueous	GC/	MS CCC	09/12/16 09/12/16 12:59			160912L01		
099-02-008-63	LCSD		Aqueous	GC/I	MS CCC	09/12/16 09/12/16 13:18		160912L01			
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers	
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11		
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20		
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20		
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20		
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20		
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20		
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20		
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20		
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20		
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20		
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20		
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20		
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20		
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20		
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20		
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20		
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20		
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20		
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20		
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40		
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20		
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20		
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18		
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20		
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20		
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21		
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20		
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20		
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20		
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20		
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20		
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20		
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26		
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME	
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20		
Diethyl Phthalate	100.0	81.95	82	80.70	81	40-120	27-133	2	0-20		

RPD: Relative Percent Difference. (

CL: Control Limits



# **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

09/09/16 16-09-0591 EPA 3510C EPA 8270C

Project: CG Roxane / SB0794

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<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Con	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 1

RPD: Relative Percent Difference. CL: Control Limits





# **Quality Control - LCS/LCSD**

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 20

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 5030C EPA 8260B

09/09/16

Project: CG Roxane / SB0794

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Nu	mber	
099-14-316-2958	LCS	Aqueous	GC/MS XX	09/09/16	09/09/16 23:32	160909L045		
<u>Parameter</u>	<u>Spik</u>	e Added Conc.	Recovered LCS	%Rec. %Re	ec. CL ME	E CL	<u>Qualifiers</u>	
Acetone	50.0	0 48.48	97	12-1	50 0-1	173		
Benzene	50.0	0 49.79	100	80-1	20 73	-127		
Bromobenzene	50.0	0 52.42	105	80-1	20 73	-127		
Bromochloromethane	50.0	0 51.50	103	80-1	22 73	-129		
Bromodichloromethane	50.0	0 47.30	95	80-1	23 73	-130		
Bromoform	50.0	0 40.48	81	74-1	34 64	-144		
Bromomethane	50.0	0 50.26	101	22-1	60 0-1	183		
2-Butanone	50.0	0 45.80	92	44-1	64 24	-184		
n-Butylbenzene	50.0	0 51.10	102	80-1	32 71	-141		
sec-Butylbenzene	50.0	0 50.69	101	80-1	29 72	-137		
tert-Butylbenzene	50.0	0 49.55	99	80-1	30 72	-138		
Carbon Disulfide	50.0	0 47.25	95	60-1	26 49	-137		
Carbon Tetrachloride	50.0	0 46.47	93	64-1	48 50	-162		
Chlorobenzene	50.0	0 50.88	102	80-1	20 73	-127		
Chloroethane	50.0	0 46.87	94	63-1	23 53	-133		
Chloroform	50.0	0 48.55	97	79-1	21 72	-128		
Chloromethane	50.0	0 44.34	89	43-1	33 28	-148		
2-Chlorotoluene	50.0	0 50.06	100	80-1	30 72	-138		
4-Chlorotoluene	50.0	0 48.55	97	80-1	21 73	-128		
Dibromochloromethane	50.0	0 45.76	92	80-1	25 72	-132		
1,2-Dibromo-3-Chloropropane	50.0	0 44.29	89	68-1	28 58	-138		
1,2-Dibromoethane	50.0	0 50.55	101	80-1	20 73	-127		
Dibromomethane	50.0	0 47.55	95	80-1	21 73	-128		
1,2-Dichlorobenzene	50.0	0 50.81	102	80-1	20 73	-127		
1,3-Dichlorobenzene	50.0	0 50.16	100	80-1	21 73	-128		
1,4-Dichlorobenzene	50.0	0 49.69	99	80-1	20 73	-127		
Dichlorodifluoromethane	50.0	0 39.29	79	25-1	87 0-2	214		
1,1-Dichloroethane	50.0	0 48.54	97	75-1	20 68	-128		
1,2-Dichloroethane	50.0	0 46.00	92	80-1	23 73	-130		
1,1-Dichloroethene	50.0	0 49.16	98	74-1	22 66	-130		
c-1,2-Dichloroethene	50.0	0 49.57	99	75-1	23 67	-131		
t-1,2-Dichloroethene	50.0	0 47.54	95	70-1	24 61	-133		
1,2-Dichloropropane	50.0	0 50.54	101	80-1	20 73	-127		
1,3-Dichloropropane	50.0	0 50.04	100	80-1	20 73	-127		
2,2-Dichloropropane	50.0		75	49-1		-168		
1,1-Dichloropropene	50.0	0 50.59	101	76-1		-127		
c-1,3-Dichloropropene	50.0			80-1		-131		
t-1,3-Dichloropropene	50.0			68-1		-138		

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

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<u>Parameter</u>	Spike Added	Conc. Recovered	d LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Ethylbenzene	50.00	50.95	102	80-120	73-127	
2-Hexanone	50.00	46.68	93	57-147	42-162	
Isopropylbenzene	50.00	51.56	103	80-127	72-135	
p-Isopropyltoluene	50.00	51.55	103	80-125	72-132	
Methylene Chloride	50.00	50.23	100	74-122	66-130	
4-Methyl-2-Pentanone	50.00	48.38	97	71-125	62-134	
Naphthalene	50.00	53.02	106	54-144	39-159	
n-Propylbenzene	50.00	45.53	91	80-127	72-135	
Styrene	50.00	51.83	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	49.57	99	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.32	99	78-126	70-134	
Tetrachloroethene	50.00	60.61	121	57-141	43-155	
Toluene	50.00	51.14	102	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	53.46	107	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	53.75	107	57-153	41-169	
1,1,1-Trichloroethane	50.00	47.69	95	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	51.95	104	58-148	43-163	
1,1,2-Trichloroethane	50.00	49.57	99	80-120	73-127	
Trichloroethene	50.00	49.44	99	80-120	73-127	
Trichlorofluoromethane	50.00	50.11	100	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.85	96	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	49.96	100	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.70	103	80-126	72-134	
Vinyl Acetate	50.00	16.51	33	34-172	11-195	ME
Vinyl Chloride	50.00	46.02	92	67-127	57-137	
p/m-Xylene	100.0	97.76	98	80-127	72-135	
o-Xylene	50.00	49.45	99	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.48	93	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0591 EPA 5030C EPA 8260B

09/09/16

Project: CG Roxane / SB0794

Page 19 of 20

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared Date Ar	nalyzed LCS Batch Number
099-14-316-2965	LCS	Aqueous	GC/MS XX	09/10/16 09/10/1	6 13:42 160910L024
<u>Parameter</u>	<u>Spi</u>	ke Added Cond	. Recovered LCS	%Rec. CL	ME CL Qualifie
Acetone	50.	00 43.65	87	12-150	0-173
Benzene	50.	00 49.70	99	80-120	73-127
Bromobenzene	50.	00 52.04	104	80-120	73-127
Bromochloromethane	50.	00 51.88	104	80-122	73-129
Bromodichloromethane	50.	00 44.50	89	80-123	73-130
Bromoform	50.	00 35.2	70	74-134	64-144 ME
Bromomethane	50.	00 44.53	89	22-160	0-183
2-Butanone	50.	00 46.84	94	44-164	24-184
n-Butylbenzene	50.	00 50.18	100	80-132	71-141
sec-Butylbenzene	50.	00 49.72	99	80-129	72-137
tert-Butylbenzene	50.	00 50.04	100	80-130	72-138
Carbon Disulfide	50.	00 42.78	86	60-126	49-137
Carbon Tetrachloride	50.	00 43.60	87	64-148	50-162
Chlorobenzene	50.	00 51.15	102	80-120	73-127
Chloroethane	50.	00 44.74	89	63-123	53-133
Chloroform	50.	00 48.36	97	79-121	72-128
Chloromethane	50.	00 42.7	85	43-133	28-148
2-Chlorotoluene	50.	00 49.83	100	80-130	72-138
4-Chlorotoluene	50.	00 47.56	95	80-121	73-128
Dibromochloromethane	50.	00 42.48	85	80-125	72-132
1,2-Dibromo-3-Chloropropane	50.	00 40.4	81	68-128	58-138
1,2-Dibromoethane	50.	00 50.88	102	80-120	73-127
Dibromomethane	50.	00 47.60	95	80-121	73-128
1,2-Dichlorobenzene	50.	00 49.18	98	80-120	73-127
1,3-Dichlorobenzene	50.	00 49.36	99	80-121	73-128
1,4-Dichlorobenzene	50.	00 49.0	98	80-120	73-127
Dichlorodifluoromethane	50.	00 35.94	72	25-187	0-214
1,1-Dichloroethane	50.	00 48.07	96	75-120	68-128
1,2-Dichloroethane	50.	00 46.48	93	80-123	73-130
1,1-Dichloroethene	50.	00 46.63	93	74-122	66-130
c-1,2-Dichloroethene	50.	00 49.7	100	75-123	67-131
t-1,2-Dichloroethene	50.	00 48.26	97	70-124	61-133
1,2-Dichloropropane	50.		102	80-120	73-127
1,3-Dichloropropane	50.	00 51.49	103	80-120	73-127
2,2-Dichloropropane	50.	00 42.3		49-151	32-168
1,1-Dichloropropene	50.			76-120	69-127
c-1,3-Dichloropropene	50.			80-124	73-131
t-1,3-Dichloropropene	50.			68-128	58-138

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/09/16 16-09-0591 EPA 5030C EPA 8260B

Project: CG Roxane / SB0794

Page 20 of 20

<u>Parameter</u>	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.77	102	80-120	73-127	
2-Hexanone	50.00	48.67	97	57-147	42-162	
Isopropylbenzene	50.00	50.93	102	80-127	72-135	
p-Isopropyltoluene	50.00	50.59	101	80-125	72-132	
Methylene Chloride	50.00	48.28	97	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.92	100	71-125	62-134	
Naphthalene	50.00	50.68	101	54-144	39-159	
n-Propylbenzene	50.00	45.31	91	80-127	72-135	
Styrene	50.00	51.58	103	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	48.20	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.96	100	78-126	70-134	
Tetrachloroethene	50.00	52.04	104	57-141	43-155	
Toluene	50.00	50.57	101	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.82	102	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	51.70	103	57-153	41-169	
1,1,1-Trichloroethane	50.00	46.29	93	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.67	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	50.12	100	80-120	73-127	
Trichloroethene	50.00	48.53	97	80-120	73-127	
Trichlorofluoromethane	50.00	46.32	93	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.68	95	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	48.92	98	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	50.94	102	80-126	72-134	
Vinyl Acetate	50.00	16.94	34	34-172	11-195	
Vinyl Chloride	50.00	43.39	87	67-127	57-137	
p/m-Xylene	100.0	97.48	97	80-127	72-135	
o-Xylene	50.00	49.12	98	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.85	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



# **Sample Analysis Summary Report**

Work Order: 16-09-0591				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



# **Glossary of Terms and Qualifiers**

Work Order: 16-09-0591 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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**CHAIN OF CUSTODY RECORD** 

WO#/LAB USE ONLY  T6-09-0591 PAGE: CLIENT PROJECT NAME / NUMBER: CG Roxane PROJECT CONTACT: Kevin Coffman Kenjo Agustsson Kenjo Agustsson
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	Address 924 Anacapa St. Ste 4A Dept/Rock/Sute/Roc	FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.  FedEx Express Saver Third business day.* Saturday Delivery NOT available.
	city Santa Karbora State CA zip-93101	5 Packaging *Declared value limit \$500.
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WORK ORDER NUMBER: 16-09- 72 of 35 9/

Calscience

SAMPLE RECEIPT CHECKLIST COOLER \_\_\_ OF \_\_\_

CLIENT: UTEOSYNTEC	DATE: 09 /	<u>09</u> /2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): / 9 °C (w/	ing	□ Sample
CUSTODY SEAL:  Cooler □ Present and Intact □ Present but Not Intact □ Not Present □ N//  Sample(s) □ Present and Intact □ Present but Not Intact □ Not Present □ N//		d by: <u>15</u> d by: <u>1013</u>
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  Sampling date  Sampling time  Matrix  Number of containers		No N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished  Sampler's name indicated on COC  Sample container label(s) consistent with COC  Sample container(s) intact and in good condition  Proper containers for analyses requested  Sufficient volume/mass for analyses requested  Samples received within holding time		
Aqueous samples for certain analyses received within 15-minute holding time  □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen  Proper preservation chemical(s) noted on COC and/or sample container		
Unpreserved aqueous sample(s) received for certain analyses  ☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals  Container(s) for certain analysis free of headspace  ☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)	🗹	o o
□ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)  Tedlar™ bag(s) free of condensation	4	
CONTAINER TYPE:	I 125AGBp	25PB  GJs
Preservative: <b>b</b> = buffered, <b>f</b> = filtered, <b>h</b> = HCl, <b>n</b> = HNO <sub>3</sub> , <b>na</b> = NaOH, <b>na</b> <sub>2</sub> = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <b>p</b> = H <sub>3</sub> PO <sub>4</sub> , L	_abeled/Checke	ed by: <u>876/601</u> ed by:778



# **Calscience**



# WORK ORDER NUMBER: 16-10-0502

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Kevin Coffman 924 Anacapa Street

Suite 4A

Santa Barbara, CA 93101-2177

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Approved for release on 10/13/2016 by:

Stephen Nowak Project Manager

ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name: CG Roxane Work Order Number: 16-10-0502

1	Work Order Narrative	3
2	Sample Summary	4
3	Detections Summary	5
4	Client Sample Data.  4.1 EPA 300.0 Anions (Aqueous).  4.2 EPA 200.7 ICP Metals (Aqueous).  4.3 EPA 6020/7470A CAC Title 22 Metals, Total (Aqueous).  4.4 EPA 6020/7470A CAC Title 22 Metals, Filtered (Aqueous).  4.5 EPA 7470A Mercury (Aqueous).  4.6 EPA 7470A Mercury (Aqueous).  4.7 EPA 8270C Semi-Volatile Organics (Aqueous).  4.8 EPA 8260B Volatile Organics (Aqueous).  4.9 Combined Inorganic Tests.	6 7 8 10 12 13 14 20 26
5	Quality Control Sample Data.  5.1 MS/MSD.  5.2 PDS/PDSD.  5.3 Sample Duplicate.  5.4 LCS/LCSD.	27 27 37 39 43
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#### **Work Order Narrative**

Work Order: 16-10-0502 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 10/07/16. They were assigned to Work Order 16-10-0502.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



### **Sample Summary**

Client: Geosyntec Consultants Work Order: 16-10-0502
924 Anacapa Street, Suite 4A Project Name: CG Roxane

Santa Barbara, CA 93101-2177 PO Number:

Date/Time 10/07/16 10:00 Received:

Number of 15

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-10-20161006	16-10-0502-1	10/06/16 10:30	13	Aqueous
QCTB-1-20161006	16-10-0502-2	10/06/16 00:00	2	Aqueous



# **Detections Summary**

Client: Geosyntec Consultants

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Received:

Work Order:

16-10-0502

Project Name: CG Roxane 10/07/16

Kevin Coffman Attn:

Page 1 of 1

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW-10-20161006 (16-10-0502-1)						
Calcium	18.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.30		0.100	mg/L	EPA 200.7	N/A
Sodium	6.24		0.500	mg/L	EPA 200.7	N/A
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00402		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00132		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0107		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0108		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00379		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00933		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	65.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	65.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.63		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.12		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.36		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.25		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.63		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: 10/07/16 16-10-0502 N/A

Method: EPA 300.0 Units: mg/L

Project: CG Roxane Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-G	10/06/16 10:30	Aqueous	IC 15	N/A	10/07/16 14:30	161007L01
Parameter		Result	RL		<u>DF</u>	Qua	<u>alifiers</u>
Chloride		ND	1.0	)	1.00		
Sulfate		ND	1.0	)	1.00		

Method Blank	099-12-906-6998	N/A	Aqueous IC	: 15 N/A	10/07/16 161007L01 10:51
<u>Parameter</u>	·	Result	RL	DF	<u>Qualifiers</u>
Chloride		ND	1.0	1.00	
Sulfate		ND	1.0	1.00	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 N/A

Method: EPA 200.7 Units: mg/L

Project: CG Roxane Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-F	10/06/16 10:30	Aqueous	ICP 7300	10/07/16	10/12/16 10:38	161007LA6A
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Calcium		18.3	0.1	00	1.00		
Magnesium		1.30	0.1	00	1.00		
Sodium		6.24	0.5	500	1.00		

Method Blank	097-01-012-6710 N/A	Aqueous	ICP 7300 10/07/16	10/12/16 161007LA6A 14:12
<u>Parameter</u>	Resi	ılt RL	<u>DF</u>	<u>Qualifiers</u>
Calcium	ND	0.1	00 1.00	
Magnesium	ND	0.1	00 1.00	
Sodium	ND	0.5	00 1.00	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

10/07/16 16-10-0502 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-F	10/06/16 10:30	Aqueous	ICP/MS 03	10/07/16	10/10/16 22:31	161007LA3
Parameter		<u>Result</u>	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0108	0.0	00100	1.00		
Barium		0.00379	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00121	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		0.00933	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

10/07/16 16-10-0502 EPA 3020A Total EPA 6020 mg/L

Project: CG Roxane

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5343	N/A	Aqueous	ICP/MS 03	10/07/16	10/10/16 21:01	161007LA3
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	lifiers
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-10-0502 EPA 3005A Filt. EPA 6020 mg/L

10/07/16

Project: CG Roxane

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-H	10/06/16 10:30	Aqueous	ICP/MS 03	10/07/16	10/10/16 22:23	161007LA2F
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		0.0113	0.0	00100	1.00		
Barium		0.00402	0.0	00100	1.00		
Beryllium		ND	0.0	00100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		0.00132	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	00100	1.00		
Silver		ND	0.0	00100	1.00		
Thallium		ND	0.0	00100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		0.0107	0.0	00500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

10/07/16 16-10-0502 EPA 3005A Filt. EPA 6020 mg/L

Project: CG Roxane

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-693-1253	N/A	Aqueous	ICP/MS 03	10/07/16	10/10/16 21:34	161007LA2F
Parameter		Result	RL	:	<u>DF</u>	Qua	<u>llifiers</u>
Antimony		ND	0.0	00100	1.00		
Arsenic		ND	0.0	00100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	00100	1.00		
Chromium		ND	0.0	00100	1.00		
Cobalt		ND	0.0	00100	1.00		
Copper		ND	0.0	00100	1.00		
Lead		ND	0.0	00100	1.00		
Molybdenum		ND	0.0	00100	1.00		
Nickel		ND	0.0	00100	1.00		
Selenium		ND	0.0	0100	1.00		
Silver		ND	0.0	0100	1.00		
Thallium		ND	0.0	0100	1.00		
Vanadium		ND	0.0	0100	1.00		
Zinc		ND	0.0	00500	1.00		

10/07/16

16-10-0502 EPA 7470A Total



# **Analytical Report**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Date Received:

Work Order:

Preparation:

Method: EPA 7470A Units: mg/L

Project: CG Roxane Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-F	10/06/16 10:30	Aqueous	Mercury 04	10/10/16	10/10/16 16:06	161010LA2
Parameter		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Mercury		ND	0.0	00500	1.00		

Method Blank	099-04-008-8000	N/A	Aqueous Mercury 04	10/10/16	10/10/16 161010LA2 14:01
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury		ND	0.000500	1.00	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

16-10-0502 EPA 7470A Filt. EPA 7470A mg/L

10/07/16

Project: CG Roxane

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-H	10/06/16 10:30	Aqueous	Mercury 04	10/10/16	10/10/16 20:20	161010LA3F
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Mercury		ND	0.0	00500	1.00		
		-		-			

Method Blank	099-15-763-841	N/A	Aqueous Mercury 04	10/10/16	10/10/16 20:07	161010LA3F
Parameter		Result	<u>RL</u>	<u>DF</u>	<u>Qualifi</u>	<u>iers</u>
Mercury		ND	0.000500	1.00		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order: Preparation: Method:

16-10-0502 EPA 3510C EPA 8270C ug/L

10/07/16

Units:

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-L	10/06/16 10:30	Aqueous	GC/MS CCC	10/07/16	10/10/16 13:09	161007L11A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	alifiers
Acenaphthene		ND	9.6		1.00		
Acenaphthylene		ND	9.6		1.00		
Aniline		ND	9.6		1.00		
Anthracene		ND	9.6		1.00		
Azobenzene		ND	9.6		1.00		
Benzidine		ND	48		1.00		
Benzo (a) Anthracene		ND	9.6		1.00		
Benzo (a) Pyrene		ND	9.6		1.00		
Benzo (b) Fluoranthene		ND	9.6		1.00		
Benzo (g,h,i) Perylene		ND	9.6		1.00		
Benzo (k) Fluoranthene		ND	9.6		1.00		
Benzoic Acid		ND	48		1.00		
Benzyl Alcohol		ND	9.6		1.00		
Bis(2-Chloroethoxy) Methane		ND	9.6		1.00		
Bis(2-Chloroethyl) Ether		ND	24		1.00		
Bis(2-Chloroisopropyl) Ether		ND	9.6		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	9.6		1.00		
4-Bromophenyl-Phenyl Ether		ND	9.6		1.00		
Butyl Benzyl Phthalate		ND	9.6		1.00		
4-Chloro-3-Methylphenol		ND	9.6		1.00		
4-Chloroaniline		ND	9.6		1.00		
2-Chloronaphthalene		ND	9.6		1.00		
2-Chlorophenol		ND	9.6		1.00		
4-Chlorophenyl-Phenyl Ether		ND	9.6		1.00		
Chrysene		ND	9.6		1.00		
2,6-Dichlorophenol		ND	9.6		1.00		
Di-n-Butyl Phthalate		ND	9.6		1.00		
Di-n-Octyl Phthalate		ND	9.6		1.00		
Dibenz (a,h) Anthracene		ND	9.6		1.00		
Dibenzofuran		ND	9.6		1.00		
1,2-Dichlorobenzene		ND	9.6		1.00		
1,3-Dichlorobenzene		ND	9.6		1.00		
1,4-Dichlorobenzene		ND	9.6		1.00		
3,3'-Dichlorobenzidine		ND	24		1.00		
2,4-Dichlorophenol		ND	9.6		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane
 Page 2 of 6

Project: CG Roxane				Page 2 of 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	



 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

 Project: CG Roxane
 Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	50-110	
2-Fluorophenol	74	20-110	
Nitrobenzene-d5	68	40-110	
p-Terphenyl-d14	70	50-135	
Phenol-d6	68	10-115	
2,4,6-Tribromophenol	79	40-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

10/07/16 16-10-0502 EPA 3510C EPA 8270C

ug/L

Project: CG Roxane

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-02-008-66	N/A	Aqueous	GC/MS CCC	10/07/16	10/10/16 11:35	161007L11A
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	<u>lifiers</u>
Acenaphthene		ND	10		1.00		
Acenaphthylene		ND	10		1.00		
Aniline		ND	10		1.00		
Anthracene		ND	10		1.00		
Azobenzene		ND	10		1.00		
Benzidine		ND	50		1.00		
Benzo (a) Anthracene		ND	10		1.00		
Benzo (a) Pyrene		ND	10		1.00		
Benzo (b) Fluoranthene		ND	10		1.00		
Benzo (g,h,i) Perylene		ND	10		1.00		
Benzo (k) Fluoranthene		ND	10		1.00		
Benzoic Acid		ND	50		1.00		
Benzyl Alcohol		ND	10		1.00		
Bis(2-Chloroethoxy) Methane		ND	10		1.00		
Bis(2-Chloroethyl) Ether		ND	25		1.00		
Bis(2-Chloroisopropyl) Ether		ND	10		1.00		
Bis(2-Ethylhexyl) Phthalate		ND	10		1.00		
4-Bromophenyl-Phenyl Ether		ND	10		1.00		
Butyl Benzyl Phthalate		ND	10		1.00		
4-Chloro-3-Methylphenol		ND	10		1.00		
4-Chloroaniline		ND	10		1.00		
2-Chloronaphthalene		ND	10		1.00		
2-Chlorophenol		ND	10		1.00		
4-Chlorophenyl-Phenyl Ether		ND	10		1.00		
Chrysene		ND	10		1.00		
2,6-Dichlorophenol		ND	10		1.00		
Di-n-Butyl Phthalate		ND	10		1.00		
Di-n-Octyl Phthalate		ND	10		1.00		
Dibenz (a,h) Anthracene		ND	10		1.00		
Dibenzofuran		ND	10		1.00		
1,2-Dichlorobenzene		ND	10		1.00		
1,3-Dichlorobenzene		ND	10		1.00		
1,4-Dichlorobenzene		ND	10		1.00		
3,3'-Dichlorobenzidine		ND	25		1.00		
2,4-Dichlorophenol		ND	10		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 3510C

 Method:
 EPA 8270C

 Units:
 ug/L

Project: CG Roxane				Page 5 of 6
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	



Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L

Project: CG Roxane	Page 6 of 6
Floject. CG Roxane	rage out o

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	50-110	
2-Fluorophenol	75	20-110	
Nitrobenzene-d5	67	40-110	
p-Terphenyl-d14	66	50-135	
Phenol-d6	68	10-115	
2,4,6-Tribromophenol	77	40-125	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 5030C EPA 8260B

ug/L

Units:

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	16-10-0502-1-A	10/06/16 10:30	Aqueous	GC/MS RR	10/07/16	10/07/16 22:40	161007L044
Parameter		Result	RL		<u>DF</u>	Qua	alifiers
Acetone		ND	20		1.00		
Benzene		ND	0.5	50	1.00		
Bromobenzene		ND	1.0	)	1.00		
Bromochloromethane		ND	1.0	)	1.00		
Bromodichloromethane		ND	1.0	)	1.00		
Bromoform		ND	1.0	)	1.00		
Bromomethane		ND	10		1.00		
2-Butanone		ND	10		1.00		
n-Butylbenzene		ND	1.0	)	1.00		
sec-Butylbenzene		ND	1.0	)	1.00		
tert-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide		ND	10		1.00		
Carbon Tetrachloride		ND	0.5	50	1.00		
Chlorobenzene		ND	1.0	)	1.00		
Chloroethane		ND	5.0	)	1.00		
Chloroform		ND	1.0	)	1.00		
Chloromethane		ND	10		1.00		
2-Chlorotoluene		ND	1.0	)	1.00		
4-Chlorotoluene		ND	1.0	)	1.00		
Dibromochloromethane		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dibromoethane		ND	1.0	)	1.00		
Dibromomethane		ND	1.0	)	1.00		
1,2-Dichlorobenzene		ND	1.0	)	1.00		
1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,4-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethane		ND	1.0	)	1.00		
1,2-Dichloroethane		ND	0.5	50	1.00		
1,1-Dichloroethene		ND	1.0	)	1.00		
c-1,2-Dichloroethene		ND	1.0	)	1.00		
t-1,2-Dichloroethene		ND	1.0	)	1.00		
1,2-Dichloropropane		ND	1.0	)	1.00		
1,3-Dichloropropane		ND	1.0	)	1.00		
2,2-Dichloropropane		ND	1.0	)	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane
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1 Tojeot: 99 Ttexane				1 age 2 61 6
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	118	78-126		
1,2-Dichloroethane-d4	110	75-135		
Toluene-d8	98	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

Units:

10/07/16 16-10-0502 EPA 5030C EPA 8260B

ug/L

Project: CG Roxane

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Cart B-1-20161006         16-10-0502-2A         10/00/01         Aqueous         GC/MS R         10/07/16         10/07/16         161007L004           Erarmeter         Result         RL         DE         Qualitiers           Acetone         ND         20         1.00         Percenter           Bromochloromethane         ND         1.0         1.00         Percenter           Carbon Disulfide         ND         1.0         1.00         Percenter Percenter           Carbon Tetrachloride         ND         1.0         1.00         Percenter P	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Acetane         ND         20         1.00           Benzene         ND         0.50         1.00           Bromobenzene         ND         1.0         1.00           Bromochioromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromofich         ND         1.0         1.00           Bromomethane         ND         10         1.00           Bromofichane         ND         10         1.00           Bromomethane         ND         10         1.00           Bromomethane         ND         10         1.00           Buthylbenzene         ND         1.0         1.00           Bettylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Etrachloride         ND         1.0         1.00           Chlorostehane         ND         1.0         1.00           Chlorostehane         ND         1.0         1.0           Chlorostehane         ND         1.0         1.00           Chlorostehane         ND         1.0         1.0	QCTB-1-20161006	16-10-0502-2-A		Aqueous	GC/MS RR	10/07/16	10/07/16 22:08	161007L044
Benzene         ND         0.50         1.00           Bromobenzene         ND         1.0         1.00           Bromochicromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           Bromodichloromethane         ND         1.0         1.00           2-Butanone         ND         1.0         1.00           Carbor Totaloure         ND         1.0         1.00           Carbor Totaloure         ND         1.0         1.00           Chlorotolurene         ND         1.0         1.00	Parameter		Result	RL	:	<u>DF</u>	Qua	<u>alifiers</u>
Bromobenzene         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromochloromethane         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           ter-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorotothane         ND         1.0         1.00 <td>Acetone</td> <td></td> <td>ND</td> <td>20</td> <td></td> <td>1.00</td> <td></td> <td></td>	Acetone		ND	20		1.00		
Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           terr-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chloroderbane         ND         1.0         1.00           L-2-Dibromo-3-Chloropropane         ND         1.0         1.00           L-2-Dibromoethane         ND         1.0	Benzene		ND	0.5	50	1.00		
Bromodichloromethane         ND         1.0         1.00           Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           Chloroformethane         ND         1.0         1.00           L2-Dibromo-S-Chloropropane         ND         1.0         1.0           L2-Dibromo-S-Chloropropane         ND         1.0         1.0           L3-Dibromo-Stoliorobenzene         ND         1.0         1.0           Dibromomethane         ND         <	Bromobenzene		ND	1.0	)	1.00		
Bromoform         ND         1.0         1.00           Bromomethane         ND         10         1.00           2-Butanone         ND         10         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Tetrachloride         ND         0.50         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chlorofothane         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           1,2-Dichrotoluene         ND         1.0         1.00           1,2-Dichrotoluene         ND         1.0         1.00           1,2-Dichlorotoluene         ND         1.0         1.00           1,2-Dichlorotoluene         ND         1.0	Bromochloromethane		ND	1.0	)	1.00		
Bromomethane         ND         10         1,00           2-Butanone         ND         10         1,00           n-Butylbenzene         ND         1,0         1,00           sec-Butylbenzene         ND         1,0         1,00           tert-Butylbenzene         ND         1,0         1,00           Carbon Disulfide         ND         1,0         1,00           Carbon Tetrachloride         ND         0,50         1,00           Chloroburzene         ND         1,0         1,00           Chlorochtane         ND         1,0         1,00           Chloroform         ND         1,0         1,00           Chlorochtane         ND         1,0         1,00           Chlorotoluene         ND         1,0         1,00           2-Chlorotoluene         ND         1,0         1,00           4-Chlorotoluene         ND         1,0         1,00           1,2-Dibromo-3-Chloropropapea         ND         1,0         1,00           1,2-Dibromo-3-Chloropropapea         ND         1,0         1,00           1,2-Dichloroethane         ND         1,0         1,00           1,3-Dichloroethane         ND <td< td=""><td>Bromodichloromethane</td><td></td><td>ND</td><td>1.0</td><td>)</td><td>1.00</td><td></td><td></td></td<>	Bromodichloromethane		ND	1.0	)	1.00		
2-Butanone         ND         1.0         1.00           n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         1.0         1.00           Carbon Tetrachloride         ND         1.0         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chlororotluene         ND         1.0         1.00           Chlororotluene         ND         1.0         1.00           Chlororotluene         ND         1.0         1.00           Chlororotluene         ND         1.0         1.00           1,2-Dibromo-S-Chloropropane         ND         1.0         1.00           1,2-Dibromo-S-Chloropropane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND	Bromoform		ND	1.0	)	1.00		
n-Butylbenzene         ND         1.0         1.00           sec-Butylbenzene         ND         1.0         1.00           tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         0.50         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1-2-Dibromo-S-Chloropropane         ND         1.0         1.00           1,2-Dibromo-S-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibrlorobenzene         ND         1.0         1.00           1,3-Dichlorotobazene         ND         1.0         1.00           1,1-Dichloroethane <td< td=""><td>Bromomethane</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></td<>	Bromomethane		ND	10		1.00		
sec-Bulylbenzene         ND         1.0         1.00           tert-Bulylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1-2-Dibromo-3-Chloropropane         ND         1.0         1.00           1-2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,1-Dichloroethane <td< td=""><td>2-Butanone</td><td></td><td>ND</td><td>10</td><td></td><td>1.00</td><td></td><td></td></td<>	2-Butanone		ND	10		1.00		
tert-Butylbenzene         ND         1.0         1.00           Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         1.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,1-Dichloroethane	n-Butylbenzene		ND	1.0	)	1.00		
Carbon Disulfide         ND         10         1.00           Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chlorobethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chlorotolune         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Distromo-3-Chloropropane         ND         1.0         1.00           1,2-Distromo-3-Chloropropane         ND         1.0         1.00           1,2-Distromoethane         ND         1.0         1.00           1,2-Distromoethane         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane	sec-Butylbenzene		ND	1.0	)	1.00		
Carbon Tetrachloride         ND         0.50         1.00           Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         1.0         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane	tert-Butylbenzene		ND	1.0	)	1.00		
Chlorobenzene         ND         1.0         1.00           Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorodfluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene	Carbon Disulfide		ND	10		1.00		
Chloroethane         ND         5.0         1.00           Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloroptopane	Carbon Tetrachloride		ND	0.5	50	1.00		
Chloroform         ND         1.0         1.00           Chloromethane         ND         10         1.00           2-Chlorotoluene         ND         1.0         1.00           4-Chlorotoluene         ND         1.0         1.00           Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           1,4-Dichloroethane         ND         1.0         1.00           1,1-Dichloroethane         ND         0.50         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloroptoethene         ND         1.0         1.00           1,2-Dichloropropane </td <td>Chlorobenzene</td> <td></td> <td>ND</td> <td>1.0</td> <td>)</td> <td>1.00</td> <td></td> <td></td>	Chlorobenzene		ND	1.0	)	1.00		
Chloromethane       ND       10       1.00         2-Chlorotoluene       ND       1.0       1.00         4-Chlorotoluene       ND       1.0       1.00         Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorotethane       ND       1.0       1.00         1,1-Dichlorotethane       ND       1.0       1.00         1,2-Dichlorotethane       ND       0.50       1.00         1,1-Dichlorotethane       ND       0.50       1.00         1,1-Dichlorotethene       ND       1.0       1.00         1,1-Dichlorotethene       ND       1.0       1.00         1,1-Dichlorotethene       ND       1.0       1.00         1,1-Dichlorotethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,2-Dichloropropane <td>Chloroethane</td> <td></td> <td>ND</td> <td>5.0</td> <td>)</td> <td>1.00</td> <td></td> <td></td>	Chloroethane		ND	5.0	)	1.00		
2-Chlorotoluene       ND       1.0       1.00         4-Chlorotoluene       ND       1.0       1.00         Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Chloroform		ND	1.0	)	1.00		
4-Chlorotoluene       ND       1.0       1.00         Dibromochloromethane       ND       1.0       1.00         1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Chloromethane		ND	10		1.00		
Dibromochloromethane         ND         1.0         1.00           1,2-Dibromo-3-Chloropropane         ND         5.0         1.00           1,2-Dibromoethane         ND         1.0         1.00           Dibromomethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,1-Dichloroethene         ND         1.0         1.00           1,2-Dichloroethene         ND         1.0         1.00           1-1,2-Dichloroptopane         ND         1.0         1.00           1,2-Dichloroptopane         ND         1.0         1.00           1,3-Dichloroptopane         ND         1.0         1.00	2-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromo-3-Chloropropane       ND       5.0       1.00         1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         -1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	4-Chlorotoluene		ND	1.0	)	1.00		
1,2-Dibromoethane       ND       1.0       1.00         Dibromomethane       ND       1.0       1.00         1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,00       1.00       1.00       1.00         1,3-Dichloropropane       ND       1.0       1.00         1,00       1.00       1.00       1.00         1,00       1.00       1.	Dibromochloromethane		ND	1.0	)	1.00		
Dibromomethane         ND         1.0         1.00           1,2-Dichlorobenzene         ND         1.0         1.00           1,3-Dichlorobenzene         ND         1.0         1.00           1,4-Dichlorobenzene         ND         1.0         1.00           Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         0.50         1.00           1,2-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           t-1,2-Dichloroethene         ND         1.0         1.00           t-1,2-Dichloropropane         ND         1.0         1.00           1,2-Dichloropropane         ND         1.0         1.00	1,2-Dibromo-3-Chloropropane		ND	5.0	)	1.00		
1,2-Dichlorobenzene       ND       1.0       1.00         1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       1.0       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dibromoethane		ND	1.0	)	1.00		
1,3-Dichlorobenzene       ND       1.0       1.00         1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dibromomethane		ND	1.0	)	1.00		
1,4-Dichlorobenzene       ND       1.0       1.00         Dichlorodifluoromethane       ND       1.0       1.00         1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichlorobenzene		ND	1.0	)	1.00		
Dichlorodifluoromethane         ND         1.0         1.00           1,1-Dichloroethane         ND         1.0         1.00           1,2-Dichloroethane         ND         0.50         1.00           1,1-Dichloroethene         ND         1.0         1.00           c-1,2-Dichloroethene         ND         1.0         1.00           t-1,2-Dichloroethene         ND         1.0         1.00           1,2-Dichloropropane         ND         1.0         1.00           1,3-Dichloropropane         ND         1.0         1.00	1,3-Dichlorobenzene		ND	1.0	)	1.00		
1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,4-Dichlorobenzene		ND	1.0	)	1.00		
1,1-Dichloroethane       ND       1.0       1.00         1,2-Dichloroethane       ND       0.50       1.00         1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	Dichlorodifluoromethane		ND	1.0	)	1.00		
1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,1-Dichloroethane		ND			1.00		
1,1-Dichloroethene       ND       1.0       1.00         c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	1,2-Dichloroethane		ND	0.5	50	1.00		
c-1,2-Dichloroethene       ND       1.0       1.00         t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	·		ND					
t-1,2-Dichloroethene       ND       1.0       1.00         1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00	·							
1,2-Dichloropropane       ND       1.0       1.00         1,3-Dichloropropane       ND       1.0       1.00			ND					
1,3-Dichloropropane ND 1.0 1.00	•							
			ND			1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane
 Page 4 of 6

Project: CG Roxane				Page 4 of 6
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	115	78-126		
1,2-Dichloroethane-d4	107	75-135		
Toluene-d8	97	80-120		



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-10-0502 EPA 5030C EPA 8260B

10/07/16

ug/L

Units:

Page 5 of 6

Project: CG Roxane

Date/Time Collected Date/Time QC Batch ID Client Sample Number Lab Sample Matrix Instrument Date Prepared Number Analyzed 10/07/16 20:01 **Method Blank** 099-14-316-3037 N/A Aqueous **GC/MS RR** 10/07/16 161007L044 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers ND 20 1.00 Acetone ND 0.50 Benzene 1.00 ND Bromobenzene 1.0 1.00 Bromochloromethane ND 1.0 1.00 Bromodichloromethane ND 1.0 1.00 **Bromoform** ND 1.0 1.00 **Bromomethane** ND 10 1.00 2-Butanone ND 10 1.00 n-Butylbenzene ND 1.0 1.00 sec-Butylbenzene ND 1.0 1.00 tert-Butylbenzene ND 1.0 1.00 Carbon Disulfide ND 10 1.00 Carbon Tetrachloride ND 0.50 1.00 Chlorobenzene ND 1.0 1.00 Chloroethane ND 5.0 1.00 Chloroform ND 1.0 1.00 Chloromethane ND 10 1.00 2-Chlorotoluene ND 1.0 1.00 4-Chlorotoluene ND 1.0 1.00 Dibromochloromethane ND 1.0 1.00 1,2-Dibromo-3-Chloropropane ND 5.0 1.00 1,2-Dibromoethane ND 1.0 1.00 Dibromomethane ND 1.0 1.00 1,2-Dichlorobenzene ND 1.0 1.00 1,3-Dichlorobenzene ND 1.0 1.00 1,4-Dichlorobenzene ND 1.0 1.00 Dichlorodifluoromethane ND 1.0 1.00 1,1-Dichloroethane ND 1.0 1.00 ND 0.50 1,2-Dichloroethane 1.00 1,1-Dichloroethene ND 1.0 1.00 c-1,2-Dichloroethene ND 1.0 1.00 t-1,2-Dichloroethene ND 1.0 1.00 ND 1.0 1.00 1,2-Dichloropropane 1,3-Dichloropropane ND 1.0 1.00 2,2-Dichloropropane ND 1.00 1.0

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



### **Analytical Report**

 Geosyntec Consultants
 Date Received:
 10/07/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-10-0502

 Santa Barbara, CA 93101-2177
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: CG Roxane
 Page 6 of 6

1 Toject: 00 Noxune				1 age 0 01 0
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	89	80-120		
Dibromofluoromethane	115	78-126		
1,2-Dichloroethane-d4	110	75-135		
Toluene-d8	97	80-120		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Page 1 of 1



# **Analytical Report**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order:

10/07/16 16-10-0502

•								- 3
Client Sample Number			Lab S	Sample Number		Date/Tir	ne Collected	Matrix
MW-10-20161006			16-10	)-0502-1		10/06/10	6 10:30	Aqueous
<u>Parameter</u>	Results	<u>RL</u>	DF	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	65.0	1.00	1.00		mg/L	N/A	10/07/16	SM 2320B
Bicarbonate (as CaCO3)	65.0	1.00	1.00		mg/L	N/A	10/07/16	SM 2320B
Solids, Total Dissolved	105	1.00	1.00		mg/L	10/08/16	10/08/16	SM 2540 C
Total Kjeldahl Nitrogen	0.63	0.50	1.00		mg/L	10/11/16	10/11/16	SM 4500 N Org B
Phosphorus, Total	0.12	0.10	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
otal Phosphate	0.36	0.31	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Ammonia (as N)	0.25	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 5540C
Total Nitrogen	0.63	0.50	1.00		mg/L	N/A	10/12/16	Total Nitrogen by Calc
Method Blank						N/A		Aqueous

Method Blank						N/A		Aqueous
Parameter	Results	<u>RL</u>	<u>DF</u>	Qualifiers	<u>Units</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	10/07/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	10/07/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	10/08/16	10/08/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	10/11/16	10/11/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

N/A

16-10-0502



Project: CG Roxane

# **Quality Control - Spike/Spike Duplicate**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Date Received:

Work Order:

Preparation:

Method: EPA 300.0 Page 1 of 10

Quality Control Sample ID	Туре	Туре		Matrix Instrument		Date Prepare	d Date Ana	lyzed	MS/MSD Ba	tch Number
MW-10-20161006	Sample		Aqueou	ıs IC	15	N/A	10/07/16	14:30	161007S01	
MW-10-20161006	Matrix Spike		Aqueou	ıs IC	15	N/A	10/07/16	15:39	161007S01	
MW-10-20161006	Matrix Spike	Duplicate	Aqueou	ıs IC	15	N/A	10/07/16	15:57	161007S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	ND	50.00	53.00	106	52.95	106	80-120	0	0-20	
Sulfate	ND	50.00	52.72	105	52.70	105	80-120	0	0-20	



N/A



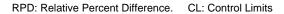
# **Quality Control - Spike/Spike Duplicate**

Geosyntec Consultants Date Received: Work Order: 924 Anacapa Street, Suite 4A 16-10-0502 Preparation: Santa Barbara, CA 93101-2177

> Method: SM 4500 P B/E

Project: CG Roxane Page 2 of 10

Quality Control Sample ID	Туре		Matrix	Matrix Instru		Date Prepared	Date Analyzed		MS/MSD Bat	tch Number
16-10-0321-1	Sample		Aqueous	s UV	8	10/08/16	10/08/16	13:14	G1008TPS2	
16-10-0321-1	Matrix Spike		Aqueous	Aqueous UV 8		10/08/16	10/08/16	13:14	G1008TPS2	
16-10-0321-1	Matrix Spike	ix Spike Duplicate		s UV	8	10/08/16	10/08/16	13:14	G1008TPS2	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	ND	0.4000	0.4417	110	0.4346	109	70-130	2	0-25	





# **Quality Control - Spike/Spike Duplicate**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Date Received:

Work Order:

Preparation:

Work Order: 16-10-0502
Preparation: N/A
Method: SM 4500 P B/E

Project: CG Roxane Page 3 of 10

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-10-20161006	Sample	Aqueous	UV 8	10/08/16	10/08/16 13:1	4 G1008PO4S2
MW-10-20161006	Matrix Spike	Aqueous	UV 8	10/08/16	10/08/16 13:1	4 G1008PO4S2
MW-10-20161006	Matrix Spike Duplicat	e Aqueous	UV 8	10/08/16	10/08/16 13:1	4 G1008PO4S2
Parameter	Sample Spike Conc. Added	MS MS Conc. %	S MSD Rec. Conc.	MSD %Rec.	%Rec. CL RP	D RPD CL Qualifiers
Total Phosphate	0.3649 1.220	1.423 87	1.425	87	70-130 0	0-25



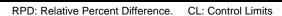


Geosyntec ConsultantsDate Received:10/07/16924 Anacapa Street, Suite 4AWork Order:16-10-0502Santa Barbara, CA 93101-2177Preparation:N/A

Method: SM 4500-NO3 E

Project: CG Roxane Page 4 of 10

Quality Control Sample ID	Туре		Matrix	Matrix Instru		Instrument Date Prepared		lyzed	MS/MSD Ba	tch Number
16-10-0321-2	Sample		Aqueous	Aqueous UV 8		10/07/16	10/07/16	17:55	G1007NO35	31
16-10-0321-2	Matrix Spike		Aqueous	Aqueous UV 8		10/07/16	10/07/16	17:55	G1007NO35	S1
16-10-0321-2	Matrix Spike D	Ouplicate	Aqueous	s UV	8	10/07/16	10/07/16	17:55	G1007NO35	<b>31</b>
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5838	117	0.5869	117	70-130	1	0-25	

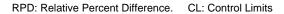




Geosyntec Consultants
Date Received:
10/07/16
924 Anacapa Street, Suite 4A
Work Order:
16-10-0502
Santa Barbara, CA 93101-2177
Preparation:
N/A
Method:
SM 5540C

Project: CG Roxane Page 5 of 10

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0430-1	Sample	Aqueous	UV 8	10/07/16	10/07/16 17:02	G1007SURS1
16-10-0430-1	Matrix Spike	Aqueous	UV 8	10/07/16	10/07/16 17:02	G1007SURS1
16-10-0430-1	Matrix Spike Duplic	ate Aqueous	UV 8	10/07/16	10/07/16 17:02	G1007SURS1
Parameter	Sample Spike Conc. Adde	MS I Conc.	MSD MRec. Conc.	MSD %Rec.	%Rec. CL RPD	RPD CL Qualifiers
MBAS	0.1085 1.00	1.004	90 1.025	92	70-130 2	0-25





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 N/A

EPA 200.7

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Project: CG Roxane

Quality Control Sample ID	Туре		Matrix I		strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-10-0394-1	Sample		Aqueou	s IC	P 7300	10/07/16	10/10/16	13:33	161007SA6	
16-10-0394-1	Matrix Spike		Aqueou	is IC	P 7300	10/07/16	10/10/16	13:40	161007SA6	
16-10-0394-1	Matrix Spike	Duplicate	Aqueou	s IC	P 7300	10/07/16	10/10/16	13:41	161007SA6	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	44.87	0.5000	49.08	4X	49.68	4X	80-120	4X	0-20	Q
Magnesium	21.81	0.5000	23.00	4X	22.87	4X	80-120	4X	0-20	Q
Sodium	421.6	5.000	455.2	4X	469.7	4X	80-120	4X	0-20	Q



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-10-0502 EPA 3005A Filt. EPA 6020

10/07/16

Project: CG Roxane Page 7 of 10

Quality Control Sample ID	Туре		Matrix	lr	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-10-0463-1	Sample	Sample		s IC	CP/MS 03	10/07/16	10/10/16 21:27		161007SA3	
16-10-0463-1	Matrix Spike		Aqueous	s I	CP/MS 03	10/07/16	10/10/16	21:17	161007SA3	
16-10-0463-1	Matrix Spike I	Duplicate	Aqueous	s l	CP/MS 03	10/07/16	10/10/16	21:19	161007SA3	
Parameter	<u>Sample</u> <u>Conc.</u>	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1007	101	0.1014	101	85-133	1	0-11	
Arsenic	0.001544	0.1000	0.1002	99	0.1014	100	73-127	1	0-11	
Barium	0.02845	0.1000	0.1355	107	0.1306	102	74-128	4	0-10	
Beryllium	ND	0.1000	0.09618	96	0.09570	96	56-122	1	0-11	
Cadmium	ND	0.1000	0.09413	94	0.09584	96	84-114	2	0-8	
Chromium	ND	0.1000	0.08965	90	0.08747	87	73-133	2	0-11	
Cobalt	ND	0.1000	0.09477	95	0.09387	94	79-121	1	0-10	
Copper	0.003237	0.1000	0.09029	87	0.08894	86	72-108	1	0-10	
Lead	ND	0.1000	0.1068	107	0.1088	109	79-121	2	0-10	
Molybdenum	0.1046	0.1000	0.2191	115	0.2178	113	83-137	1	0-10	
Nickel	0.006580	0.1000	0.09707	90	0.09631	90	68-122	1	0-10	
Selenium	0.001004	0.1000	0.1052	104	0.1004	99	59-125	5	0-12	
Silver	ND	0.05000	0.04943	99	0.04754	95	68-128	4	0-14	
Thallium	ND	0.1000	0.1040	104	0.1044	104	73-121	0	0-11	
Vanadium	ND	0.1000	0.1014	101	0.1002	100	77-137	1	0-15	
Zinc	0.01077	0.1000	0.09018	79	0.09065	80	43-145	1	0-39	

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 3005A Filt. EPA 6020

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Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
MW-10-20161006	Sample		Aqueous	Aqueous IC		10/07/16	10/10/16 22:23		161007SA2	
MW-10-20161006	Matrix Spike		Aqueous	Aqueous ICP/MS		10/07/16	10/10/16	22:13	161007SA2	
MW-10-20161006	Matrix Spike I	Duplicate	Aqueous	s 10	CP/MS 03	10/07/16	10/10/16	22:16	161007SA2	
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.09718	97	0.09489	95	85-133	2	0-11	
Arsenic	0.01128	0.1000	0.1068	95	0.1046	93	73-127	2	0-11	
Barium	0.004019	0.1000	0.09716	93	0.09724	93	74-128	0	0-10	
Beryllium	ND	0.1000	0.09833	98	0.09486	95	56-122	4	0-11	
Cadmium	ND	0.1000	0.09668	97	0.09556	96	84-114	1	0-8	
Chromium	ND	0.1000	0.1056	106	0.1021	102	73-133	3	0-11	
Cobalt	ND	0.1000	0.09738	97	0.09546	95	79-121	2	0-10	
Copper	ND	0.1000	0.09618	96	0.09337	93	72-108	3	0-10	
Lead	ND	0.1000	0.1031	103	0.09975	100	79-121	3	0-10	
Molybdenum	0.001325	0.1000	0.1107	109	0.1115	110	83-137	1	0-10	
Nickel	ND	0.1000	0.09846	98	0.09407	94	68-122	5	0-10	
Selenium	ND	0.1000	0.09364	94	0.09078	91	59-125	3	0-12	
Silver	ND	0.05000	0.04988	100	0.04909	98	68-128	2	0-14	
Thallium	ND	0.1000	0.09822	98	0.09603	96	73-121	2	0-11	
Vanadium	ND	0.1000	0.09988	100	0.09488	95	77-137	5	0-15	
Zinc	0.01066	0.1000	0.09412	83	0.09712	86	43-145	3	0-39	



Geosyntec ConsultantsDate Received:10/07/16924 Anacapa Street, Suite 4AWork Order:16-10-0502Santa Barbara, CA 93101-2177Preparation:EPA 7470A TotalMethod:EPA 7470A

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
16-10-0645-1	Sample		Aqueous	s Me	ercury 04	10/10/16	10/10/16	14:06	161010SA2	
16-10-0645-1	Matrix Spike		Aqueous	s Me	ercury 04	10/10/16	10/10/16	14:08	161010SA2	
16-10-0645-1	Matrix Spike	Duplicate	Aqueous	s Me	ercury 04	10/10/16	10/10/16	14:14	161010SA2	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01063	106	0.01054	105	55-133	1	0-20	



16-10-0502 EPA 7470A Filt.

EPA 7470A



# **Quality Control - Spike/Spike Duplicate**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Wethod:

Date Received:

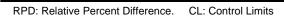
Work Order:

Preparation:

Method:

Project: CG Roxane Page 10 of 10

Quality Control Sample ID	Type		Matrix	Inst	trument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
16-10-0571-2	Sample		Aqueous	Me	rcury 04	10/10/16	10/10/16	20:11	161010SA3	
16-10-0571-2	Matrix Spike		Aqueous	Me	rcury 04	10/10/16	10/10/16	20:13	161010SA3	
16-10-0571-2	Matrix Spike	Duplicate	Aqueous	Me	rcury 04	10/10/16	10/10/16	20:16	161010SA3	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.007058	71	0.007971	80	55-133	12	0-20	





# **Quality Control - PDS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Zinc

Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 3005A Filt. EPA 6020

Project: CG Roxane Page 1 of 2

Quality Control Sample ID	Туре	N	<i>M</i> atrix	Instrument	Date Prepared D	Date Analyzed PDS Num	
16-10-0463-1	Sample		Aqueous	ICP/MS 03	10/07/16 00:00 1	0/10/16 21:27 1610	007SA3
16-10-0463-1	PDS		Aqueous	ICP/MS 03	10/07/16 00:00 1	0/10/16 21:22 1610	007SA3
Parameter		Sample Conc.	Spike Adde	d PDS Conc.	. PDS %Rec	. %Rec. CL	<u>Qualifiers</u>
Antimony		ND	0.1000	0.1007	101	75-125	
Arsenic		0.001544	0.1000	0.09829	97	75-125	
Barium		0.02845	0.1000	0.1293	101	75-125	
Beryllium		ND	0.1000	0.09649	96	75-125	
Cadmium		ND	0.1000	0.09434	94	75-125	
Chromium		ND	0.1000	0.08651	87	75-125	
Cobalt		ND	0.1000	0.09370	94	75-125	
Copper		0.003237	0.1000	0.08825	85	75-125	
Lead		ND	0.1000	0.1088	109	75-125	
Molybdenum		0.1046	0.1000	0.2176	113	75-125	
Nickel		0.006580	0.1000	0.09572	89	75-125	
Selenium		0.001004	0.1000	0.1012	100	75-125	
Silver		ND	0.05000	0.04769	95	75-125	
Thallium		ND	0.1000	0.1042	104	75-125	
Vanadium		ND	0.1000	0.09978	100	75-125	

0.1000

0.09665

86

75-125

0.01077

RPD: Relative Percent Difference. CL: Control Limits



# **Quality Control - PDS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 3005A Filt. EPA 6020

Project: CG Roxane Page 2 of 2

Quality Control Sample ID	Type	N	Matrix	Instrument	Date Prepared Date	Analyzed PDS Num	S/PDSD Batch ber
MW-10-20161006	Sample	1	Aqueous	ICP/MS 03	10/07/16 00:00 10/1	0/16 22:23 1610	007SA2
MW-10-20161006	PDS	-	Aqueous	ICP/MS 03	10/07/16 00:00 10/1	0/16 22:18 1610	007SA2
<u>Parameter</u>		Sample Conc.	Spike Adde	d PDS Cond	. PDS %Rec.	%Rec. CL	Qualifiers
Antimony		ND	0.1000	0.09870	99	75-125	
Arsenic		0.01128	0.1000	0.1073	96	75-125	
Barium		0.004019	0.1000	0.1004	96	75-125	
Beryllium		ND	0.1000	0.09632	96	75-125	
Cadmium		ND	0.1000	0.09651	97	75-125	
Chromium		ND	0.1000	0.1031	103	75-125	
Cobalt		ND	0.1000	0.09652	97	75-125	
Copper		ND	0.1000	0.09393	94	75-125	
Lead		ND	0.1000	0.1018	102	75-125	
Molybdenum		0.001325	0.1000	0.1161	115	75-125	
Nickel		ND	0.1000	0.09558	96	75-125	
Selenium		ND	0.1000	0.09083	91	75-125	
Silver		ND	0.05000	0.05140	103	75-125	
Thallium		ND	0.1000	0.09815	98	75-125	
Vanadium		ND	0.1000	0.09802	98	75-125	
Zinc		0.01066	0.1000	0.1021	91	75-125	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

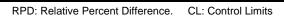
10/07/16 16-10-0502 N/A

SM 2320B

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Project: CG Roxane

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	Sample	Aqueous	PH1/BUR03	N/A	10/07/16 17:35	G1007ALKD1
16-10-0362-1	Sample Duplicate	Aqueous	PH1/BUR03	N/A	10/07/16 17:35	G1007ALKD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		444.0	447.0	1	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: 10/07/16 16-10-0502 N/A

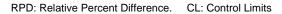
Method:

SM 2320B

Project: CG Roxane

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	Sample	Aqueous	PH1/BUR03	N/A	10/07/16 17:35	G1007HCOD1
16-10-0362-1	Sample Duplicate	Aqueous	PH1/BUR03	N/A	10/07/16 17:35	G1007HCOD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		444.0	447.0	1	0-25	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

16-10-0502 N/A

10/07/16

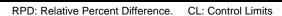
Method:

SM 2540 C

Project: CG Roxane

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0436-2	Sample	Aqueous	N/A	10/08/16 00:00	10/08/16 15:00	G1008TDSD1
16-10-0436-2	Sample Duplicate	Aqueous	N/A	10/08/16 00:00	10/08/16 15:00	G1008TDSD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1355	1375	1	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order: Preparation: 10/07/16 16-10-0502 N/A

Method: SM 4500 N Org B

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	Sample	Aqueous	BUR05	10/11/16 00:00	10/11/16 13:45	G1011TKND1
16-10-0362-1	Sample Duplicate	Aqueous	BUR05	10/11/16 00:00	10/11/16 13:45	G1011TKND1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen		3.710	3.500	6	0-25	

N/A

16-10-0502



# **Quality Control - LCS**

Geosyntec Consultants

924 Anacapa Street, Suite 4A

Santa Barbara, CA 93101-2177

Date Received:

Work Order:

Preparation:

Method: EPA 300.0

Project: CG Roxane Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date	Prepared Date A	nalyzed	LCS Batch I	Number
099-12-906-6998	LCS	Aqueous	IC 15	N/A	10/07/	16 11:09	161007L01	
Parameter		Spike Added	Conc. Recov	ered	LCS %Rec.	%Rec	. CL	Qualifiers
Chloride		50.00	52.07		104	90-110	0	
Sulfate		50.00	52.34		105	90-110	0	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 N/A

SM 2320B

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Project: CG Roxane

Date Prepared Date Analyzed LCS/LCSD Batch Number Quality Control Sample ID Туре Matrix Instrument 099-15-859-1078 LCS PH1/BUR03 10/07/16 17:35 G1007ALKB1 Aqueous N/A 099-15-859-1078 **LCSD** Aqueous PH1/BUR03 N/A 10/07/16 17:35 G1007ALKB1 LCS <u>%Rec.</u> **LCSD** <u>Parameter</u> Spike Added LCS Conc. LCSD Conc. %Rec. CL <u>RPD</u> RPD CL Qualifiers %Rec. Alkalinity, Total (as CaCO3) 100.0 101.0 101 100.0 100 80-120 0-20 1

RPD: Relative Percent Difference. CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order: Preparation: Method:

16-10-0502 N/A

10/07/16

SM 2540 C Page 3 of 18

Quality Control Sample ID	Type	Mat	trix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-180-5273	LCS	Aqı	ueous	N/A	10/08/16	10/0	8/16 15:00	G1008TDSL1	
099-12-180-5273	LCSD	Aqı	ueous	N/A	10/08/16	10/0	8/16 15:00	G1008TDSL1	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	85.00	85	85.00	85	80-120	0	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

10/07/16 16-10-0502 N/A

SM 4500 P B/E Page 4 of 18

Project: CG Roxane

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-05-098-2798	LCS	Aqı	ieous	UV 8	10/08/16	10/0	8/16 13:14	G1008TPL2	
099-05-098-2798	LCSD	Aqı	ieous	UV 8	10/08/16	10/0	8/16 13:14	G1008TPL2	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus Total	0.4000	0 4171	104	0 4224	106	80-120	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: Work Order: Preparation:

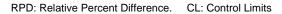
Method:

10/07/16 16-10-0502 N/A

SM 4500 P B/E

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	ared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-276-208	LCS	Aqu	ieous	UV 8	10/08/16	10/0	8/16 13:14	G1008PO4L2	
099-14-276-208	LCSD	Aqu	ieous	UV 8	10/08/16	10/0	8/16 13:14	G1008PO4L2	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.276	105	1.293	106	80-120	1	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

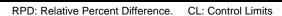
Method:

10/07/16 16-10-0502 N/A

SM 4500-NH3 B/C

Project: CG Roxane Page 6 of 18

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Da	ate Analyzed	LCS/LCSD Ba	atch Number
099-12-814-2443	LCS	Aqu	eous	BUR05	10/07/16	10	/07/16 12:49	G1007NH3L1	
099-12-814-2443	LCSD	Aqu	eous	BUR05	10/07/16	10	/07/16 12:49	G1007NH3L1	
Parameter	Spike Added L	_CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. C	L RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000 4	1.424	88	4.396	88	80-120	1	0-20	





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

10/07/16 16-10-0502 N/A

SM 4500-NO3 E Page 7 of 18

Project: CG Roxane

Quality Control Sample ID	Туре	Matrix		Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Ba	atch Number
099-14-282-450	LCS	Aqı	ieous	UV 8	10/07/16	10/0	7/16 17:55	G1007NO3L1	
099-14-282-450	LCSD	Aqu	ieous	UV 8	10/07/16	10/0	7/16 17:55	G1007NO3L1	
<u>Parameter</u>	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5075	102	0.5129	103	80-120	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-10-0502 N/A

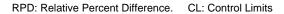
10/07/16

SM 5540C

Project: CG Roxane

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Quality Control Sample ID	Туре	Matrix		Instrument	Date Prep	pared Date	e Analyzed	LCS/LCSD Batch Numbe	
099-05-093-3148	LCS	Aqu	eous	UV 8	10/07/16	10/0	07/16 17:02	G1007SURL1	
099-05-093-3148	LCSD	Aqu	eous	UV 8	10/07/16	10/0	07/16 17:02	G1007SURL1	
Parameter	Spike Added LC	CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000 0.	.9197	92	0.9341	93	80-120	2	0-20	



EPA 200.7



# **Quality Control - LCS**

Geosyntec ConsultantsDate Received:10/07/16924 Anacapa Street, Suite 4AWork Order:16-10-0502Santa Barbara, CA 93101-2177Preparation:N/A

Project: CG Roxane Page 9 of 18

Method:

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6710	LCS	Aqueous	ICP 7300	10/07/16	10/12/16 14:14	161007LA6A
Parameter		Spike Added	Conc. Recovere	ed LCS %R	ec. %Rec.	CL Qualifiers
Calcium		0.5000	0.5376	108	85-115	5
Magnesium		0.5000	0.4715	94	85-115	5
Sodium		5.000	4.633	93	85-115	5



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 3020A Total EPA 6020

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Project: CG Roxane

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepare	d Date A	nalyzed	LCS/LCSD Ba	tch Number
096-06-003-5343	LCS		Aqueous	ICP	/MS 03	10/07/16	10/10/1	16 21:11	161007LA3	
096-06-003-5343	LCSD		Aqueous	ICP	/MS 03	10/07/16	10/10/1	16 21:14	161007LA3	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	0.1000	0.1042	104	0.1049	105	80-120	73-127	1	0-20	
Arsenic	0.1000	0.1028	103	0.1020	102	80-120	73-127	1	0-20	
Barium	0.1000	0.1024	102	0.1026	103	80-120	73-127	0	0-20	
Beryllium	0.1000	0.1073	107	0.1077	108	80-120	73-127	0	0-20	
Cadmium	0.1000	0.1026	103	0.1031	103	80-120	73-127	1	0-20	
Chromium	0.1000	0.1023	102	0.1012	101	80-120	73-127	1	0-20	
Cobalt	0.1000	0.1019	102	0.1031	103	80-120	73-127	1	0-20	
Copper	0.1000	0.1018	102	0.1024	102	80-120	73-127	1	0-20	
Lead	0.1000	0.1031	103	0.1020	102	80-120	73-127	1	0-20	
Molybdenum	0.1000	0.1026	103	0.1033	103	80-120	73-127	1	0-20	
Nickel	0.1000	0.1007	101	0.1016	102	80-120	73-127	1	0-20	
Selenium	0.1000	0.1068	107	0.1082	108	80-120	73-127	1	0-20	
Silver	0.05000	0.05159	103	0.05206	104	80-120	73-127	1	0-20	
Thallium	0.1000	0.09851	99	0.09853	99	80-120	73-127	0	0-20	
Vanadium	0.1000	0.1029	103	0.1036	104	80-120	73-127	1	0-20	
Zinc	0.1000	0.1078	108	0.1068	107	80-120	73-127	1	0-20	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





### **Quality Control - LCS**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 3005A Filt. EPA 6020

Project: CG Roxane

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Quality Control Sample ID	Туре	Matrix	Instrumen	t Date Prep	ared Date Anal	yzed LCS Batc	h Number
099-15-693-1253	LCS	Aque	ous ICP/MS 0	3 10/07/16	10/10/16	22:11 161007L	A2F
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		0.1000	0.1006	101	80-120	73-127	
Arsenic		0.1000	0.1000	100	80-120	73-127	
Barium		0.1000	0.09910	99	80-120	73-127	
Beryllium		0.1000	0.1005	101	80-120	73-127	
Cadmium		0.1000	0.1017	102	80-120	73-127	
Chromium		0.1000	0.1049	105	80-120	73-127	
Cobalt		0.1000	0.1021	102	80-120	73-127	
Copper		0.1000	0.1024	102	80-120	73-127	
Lead		0.1000	0.1015	101	80-120	73-127	
Molybdenum		0.1000	0.1051	105	80-120	73-127	
Nickel		0.1000	0.1029	103	80-120	73-127	
Selenium		0.1000	0.1072	107	80-120	73-127	
Silver		0.05000	0.05141	103	80-120	73-127	
Thallium		0.1000	0.09726	97	80-120	73-127	
Vanadium		0.1000	0.1024	102	80-120	73-127	
Zinc		0.1000	0.1037	104	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

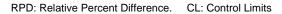


# **Quality Control - LCS**

Geosyntec Consultants
Date Received:
10/07/16
924 Anacapa Street, Suite 4A
Work Order:
16-10-0502
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Total
Method:
EPA 7470A

Project: CG Roxane Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-8000	LCS	Aqueous	Mercury 04	10/10/16	10/10/16 14:03	161010LA2
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.008442	84	80-120	)



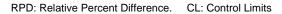


# **Quality Control - LCS**

Geosyntec Consultants
Date Received:
10/07/16
924 Anacapa Street, Suite 4A
Work Order:
16-10-0502
Santa Barbara, CA 93101-2177
Preparation:
EPA 7470A Filt.
Method:
EPA 7470A

Project: CG Roxane Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-841	LCS	Aqueous	Mercury 04	10/10/16	10/10/16 20:09	161010LA3F
Parameter		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.01000	0.01078	108	80-120	)





Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177

Date Received: Work Order: Preparation: Method:

10/07/16 16-10-0502 EPA 3510C EPA 8270C

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Quality Control Sample ID	Туре		Matrix	li	nstrument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-02-008-66	LCS		Aqueous		C/MS CCC	10/07/16	10/10/1	16 11:53	161007L11A	
099-02-008-66	LCSD		Aqueous	. 0	SC/MS CCC	10/07/16	10/10/1	16 12:12	161007L11A	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	71.32	71	77.28	77	45-110	34-121	8	0-11	
Acenaphthylene	100.0	69.75	70	74.58	75	50-105	41-114	7	0-20	
Aniline	100.0	62.35	62	67.26	67	50-130	37-143	8	0-20	
Anthracene	100.0	74.06	74	79.18	79	55-110	46-119	7	0-20	
Azobenzene	100.0	65.59	66	70.59	71	50-130	37-143	7	0-20	
Benzidine	100.0	75.75	76	89.49	89	50-130	37-143	17	0-20	
Benzo (a) Anthracene	100.0	73.70	74	79.68	80	55-110	46-119	8	0-20	
Benzo (a) Pyrene	100.0	84.77	85	91.29	91	55-110	46-119	7	0-20	
Benzo (b) Fluoranthene	100.0	80.62	81	88.03	88	45-120	32-132	9	0-20	
Benzo (g,h,i) Perylene	100.0	81.61	82	85.70	86	40-125	26-139	5	0-20	
Benzo (k) Fluoranthene	100.0	77.63	78	84.22	84	45-125	32-138	8	0-20	
Benzoic Acid	100.0	71.78	72	78.77	79	50-130	37-143	9	0-20	
Benzyl Alcohol	100.0	69.67	70	74.79	75	30-110	17-123	7	0-20	
Bis(2-Chloroethoxy) Methane	100.0	69.89	70	75.51	76	45-105	35-115	8	0-20	
Bis(2-Chloroethyl) Ether	100.0	68.73	69	73.85	74	35-110	22-122	7	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	61.49	61	65.96	66	25-130	8-148	7	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	65.62	66	72.38	72	40-125	26-139	10	0-20	
4-Bromophenyl-Phenyl Ether	100.0	75.79	76	82.93	83	50-115	39-126	9	0-20	
Butyl Benzyl Phthalate	100.0	67.78	68	73.79	74	45-115	33-127	8	0-20	
4-Chloro-3-Methylphenol	100.0	74.55	75	80.31	80	45-110	34-121	7	0-40	
4-Chloroaniline	100.0	69.82	70	71.10	71	15-110	0-126	2	0-20	
2-Chloronaphthalene	100.0	74.17	74	78.64	79	50-105	41-114	6	0-20	
2-Chlorophenol	100.0	76.55	77	81.92	82	35-105	23-117	7	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	72.33	72	78.95	79	50-110	40-120	9	0-20	
Chrysene	100.0	71.07	71	76.82	77	55-110	46-119	8	0-20	
2,6-Dichlorophenol	100.0	78.30	78	84.09	84	42-120	29-133	7	0-21	
Di-n-Butyl Phthalate	100.0	70.05	70	76.24	76	55-115	45-125	8	0-20	
Di-n-Octyl Phthalate	100.0	69.96	70	76.52	77	35-135	18-152	9	0-20	
Dibenz (a,h) Anthracene	100.0	75.55	76	80.56	81	40-125	26-139	6	0-20	
Dibenzofuran	100.0	73.35	73	78.73	79	55-105	47-113	7	0-20	
1,2-Dichlorobenzene	100.0	71.05	71	76.69	77	35-100	24-111	8	0-20	
1,3-Dichlorobenzene	100.0	72.17	72	78.03	78	30-100	18-112	8	0-20	
1,4-Dichlorobenzene	100.0	70.79	71	77.05	77	30-100	18-112	8	0-26	
3,3'-Dichlorobenzidine	100.0	82.24	82	84.73	85	20-110	5-125	3	0-20	
2,4-Dichlorophenol	100.0	77.98	78	83.03	83	50-105	41-114	6	0-20	
Diethyl Phthalate	100.0	67.72	68	72.65	73	40-120	27-133	7	0-20	

RPD: Relative Percent Difference.

CL: Control Limits



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

10/07/16 16-10-0502 EPA 3510C

**EPA 8270C** 

Project: CG Roxane Page 15 of 18

<u>Parameter</u>	<u>Spike</u> Added	LCS Cond	c. <u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
Dimethyl Phthalate	100.0	70.94	71	75.92	76	25-125	8-142	7	0-20	
2,4-Dimethylphenol	100.0	76.70	77	82.14	82	30-110	17-123	7	0-20	
4,6-Dinitro-2-Methylphenol	100.0	81.06	81	87.99	88	40-130	25-145	8	0-20	
2,4-Dinitrophenol	100.0	72.55	73	78.52	79	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	77.11	77	83.67	84	50-120	38-132	8	0-36	
2,6-Dinitrotoluene	100.0	76.53	77	81.42	81	50-115	39-126	6	0-20	
Fluoranthene	100.0	75.69	76	83.96	84	55-115	45-125	10	0-20	
Fluorene	100.0	70.31	70	75.89	76	50-110	40-120	8	0-20	
Hexachloro-1,3-Butadiene	100.0	77.15	77	84.47	84	25-105	12-118	9	0-20	
Hexachlorobenzene	100.0	69.20	69	77.27	77	50-110	40-120	11	0-20	
Hexachlorocyclopentadiene	100.0	77.37	77	82.85	83	50-130	37-143	7	0-20	
Hexachloroethane	100.0	73.80	74	78.09	78	30-95	19-106	6	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	74.54	75	79.22	79	45-125	32-138	6	0-20	
Isophorone	100.0	66.37	66	70.96	71	50-110	40-120	7	0-20	
2-Methylnaphthalene	100.0	77.07	77	82.16	82	45-105	35-115	6	0-20	
1-Methylnaphthalene	100.0	70.24	70	75.48	75	45-105	35-115	7	0-20	
2-Methylphenol	100.0	73.33	73	78.10	78	40-110	28-122	6	0-20	
3/4-Methylphenol	200.0	147.3	74	159.4	80	30-110	17-123	8	0-20	
N-Nitroso-di-n-propylamine	100.0	66.27	66	72.45	72	35-130	19-146	9	0-13	
N-Nitrosodimethylamine	100.0	63.97	64	69.47	69	25-110	11-124	8	0-20	
N-Nitrosodiphenylamine	100.0	83.31	83	88.99	89	50-110	40-120	7	0-20	
Naphthalene	100.0	70.36	70	75.84	76	40-100	30-110	7	0-20	
4-Nitroaniline	100.0	75.11	75	80.58	81	35-120	21-134	7	0-20	
3-Nitroaniline	100.0	77.31	77	81.98	82	20-125	2-142	6	0-20	
2-Nitroaniline	100.0	75.48	75	80.76	81	50-115	39-126	7	0-20	
Nitrobenzene	100.0	70.89	71	77.78	78	45-110	34-121	9	0-20	
4-Nitrophenol	100.0	70.81	71	73.84	74	20-150	0-172	4	0-40	
2-Nitrophenol	100.0	84.07	84	90.61	91	40-115	28-128	7	0-20	
Pentachlorophenol	100.0	60.33	60	63.77	64	40-115	28-128	6	0-40	
Phenanthrene	100.0	74.44	74	80.15	80	50-115	39-126	7	0-20	
Phenol	100.0	73.38	73	78.84	79	10-115	0-132	7	0-23	
Pyrene	100.0	70.91	71	75.59	76	50-130	37-143	6	0-20	
Pyridine	100.0	48.56	49	62.32	62	52-115	42-126	25	0-20	ME,X
1,2,4-Trichlorobenzene	100.0	75.49	75	81.93	82	35-105	23-117	8	0-21	
2,4,6-Trichlorophenol	100.0	79.05	79	86.11	86	50-115	39-126	9	0-20	
2,4,5-Trichlorophenol	100.0	79.00	79	83.57	84	50-110	40-120	6	0-20	

Total number of LCS compounds: 72 Total number of ME compounds: 1





Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane		Page 16 of 18

Total number of ME compounds allowed: 4 LCS ME CL validation result: Pass



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 5030C EPA 8260B

Project: CG Roxane Page 17 of 18

Quality Control Sample ID	Туре		Matrix	lı	nstrument	Date Prepare	ed Date A	Analyzed	LCS/LCSD Ba	tch Number
099-14-316-3037	LCS		Aqueous		C/MS RR	10/07/16	10/07/	16 17:53	161007L044	
099-14-316-3037	LCSD		Aqueous		C/MS RR	10/07/16	10/07/	16 18:25	161007L044	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	44.46	89	46.83	94	12-150	0-173	5	0-20	
Benzene	50.00	49.22	98	49.66	99	80-120	73-127	1	0-20	
Bromobenzene	50.00	49.93	100	50.95	102	80-120	73-127	2	0-20	
Bromochloromethane	50.00	50.04	100	49.85	100	80-122	73-129	0	0-20	
Bromodichloromethane	50.00	51.59	103	52.03	104	80-123	73-130	1	0-20	
Bromoform	50.00	45.00	90	45.84	92	74-134	64-144	2	0-20	
Bromomethane	50.00	46.36	93	43.68	87	22-160	0-183	6	0-20	
2-Butanone	50.00	42.04	84	44.68	89	44-164	24-184	6	0-20	
n-Butylbenzene	50.00	52.21	104	51.79	104	80-132	71-141	1	0-20	
sec-Butylbenzene	50.00	50.63	101	49.91	100	80-129	72-137	1	0-20	
tert-Butylbenzene	50.00	48.76	98	49.78	100	80-130	72-138	2	0-20	
Carbon Disulfide	50.00	50.88	102	49.61	99	60-126	49-137	3	0-20	
Carbon Tetrachloride	50.00	53.18	106	52.23	104	64-148	50-162	2	0-20	
Chlorobenzene	50.00	48.74	97	48.91	98	80-120	73-127	0	0-20	
Chloroethane	50.00	47.91	96	46.02	92	63-123	53-133	4	0-20	
Chloroform	50.00	49.26	99	49.30	99	79-121	72-128	0	0-20	
Chloromethane	50.00	48.57	97	48.46	97	43-133	28-148	0	0-20	
2-Chlorotoluene	50.00	50.60	101	50.51	101	80-130	72-138	0	0-20	
4-Chlorotoluene	50.00	48.71	97	49.36	99	80-121	73-128	1	0-20	
Dibromochloromethane	50.00	47.81	96	47.99	96	80-125	72-132	0	0-20	
1,2-Dibromo-3-Chloropropane	50.00	44.95	90	44.68	89	68-128	58-138	1	0-20	
1,2-Dibromoethane	50.00	48.74	97	48.42	97	80-120	73-127	1	0-20	
Dibromomethane	50.00	48.98	98	49.09	98	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	50.00	48.26	97	49.16	98	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	48.05	96	48.26	97	80-121	73-128	0	0-20	
1,4-Dichlorobenzene	50.00	47.04	94	47.99	96	80-120	73-127	2	0-20	
Dichlorodifluoromethane	50.00	47.29	95	43.44	87	25-187	0-214	8	0-20	
1,1-Dichloroethane	50.00	53.33	107	52.52	105	75-120	68-128	2	0-20	
1,2-Dichloroethane	50.00	49.14	98	48.71	97	80-123	73-130	1	0-20	
1,1-Dichloroethene	50.00	46.74	93	45.87	92	74-122	66-130	2	0-20	
c-1,2-Dichloroethene	50.00	49.43	99	49.53	99	75-123	67-131	0	0-20	
t-1,2-Dichloroethene	50.00	51.83	104	51.82	104	70-124	61-133	0	0-20	
1,2-Dichloropropane	50.00	49.98	100	49.70	99	80-120	73-127	1	0-20	
1,3-Dichloropropane	50.00	49.02	98	48.74	97	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	55.70	111	53.03	106	49-151	32-168	5	0-20	
1,1-Dichloropropene	50.00	49.88	100	49.51	99	76-120	69-127	1	0-20	



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 10/07/16 16-10-0502 EPA 5030C EPA 8260B

Project: CG Roxane

Page 18 of 18

<u>Parameter</u>	<u>Spike</u> Added	LCS Cond	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	49.71	99	50.19	100	80-124	73-131	1	0-20	
t-1,3-Dichloropropene	50.00	50.46	101	50.73	101	68-128	58-138	1	0-20	
Ethylbenzene	50.00	50.35	101	49.97	100	80-120	73-127	1	0-20	
2-Hexanone	50.00	42.67	85	44.63	89	57-147	42-162	4	0-20	
Isopropylbenzene	50.00	50.62	101	50.17	100	80-127	72-135	1	0-20	
p-Isopropyltoluene	50.00	51.07	102	50.29	101	80-125	72-132	2	0-20	
Methylene Chloride	50.00	47.45	95	47.90	96	74-122	66-130	1	0-20	
4-Methyl-2-Pentanone	50.00	44.02	88	45.40	91	71-125	62-134	3	0-20	
Naphthalene	50.00	43.55	87	48.25	96	54-144	39-159	10	0-20	
n-Propylbenzene	50.00	51.59	103	50.39	101	80-127	72-135	2	0-20	
Styrene	50.00	52.21	104	51.99	104	80-120	73-127	0	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.39	101	50.19	100	80-125	72-132	0	0-20	
1,1,2,2-Tetrachloroethane	50.00	46.11	92	45.97	92	78-126	70-134	0	0-20	
Tetrachloroethene	50.00	52.09	104	46.85	94	57-141	43-155	11	0-20	
Toluene	50.00	49.79	100	50.19	100	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	46.89	94	49.17	98	58-154	42-170	5	0-20	
1,2,4-Trichlorobenzene	50.00	47.89	96	49.75	100	57-153	41-169	4	0-20	
1,1,1-Trichloroethane	50.00	51.24	102	51.12	102	76-124	68-132	0	0-20	
1,1,2-Trichloro-1,2,2- Trifluoroethane	50.00	54.85	110	50.10	100	58-148	43-163	9	0-20	
1,1,2-Trichloroethane	50.00	49.45	99	48.32	97	80-120	73-127	2	0-20	
Trichloroethene	50.00	51.64	103	51.09	102	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	47.63	95	45.98	92	64-136	52-148	4	0-20	
1,2,3-Trichloropropane	50.00	46.88	94	47.13	94	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	49.81	100	50.08	100	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	53.41	107	53.83	108	80-126	72-134	1	0-20	
Vinyl Acetate	50.00	54.11	108	54.52	109	34-172	11-195	1	0-20	
Vinyl Chloride	50.00	45.44	91	44.66	89	67-127	57-137	2	0-20	
p/m-Xylene	100.0	103.3	103	102.2	102	80-127	72-135	1	0-20	
o-Xylene	50.00	51.77	104	51.56	103	80-127	72-135	0	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	48.02	96	48.54	97	71-120	63-128	1	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass



## **Sample Analysis Summary Report**

Work Order: 16-10-0502				Page 1 of 1
Method	<b>Extraction</b>	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	1065	IC 15	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1023	GC/MS RR	2
EPA 8270C	EPA 3510C	928	GC/MS CCC	1
SM 2320B	N/A	1068	PH1/BUR03	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 N Org B	N/A	735	BUR05	1
SM 4500 P B/E	N/A	1068	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



## **Glossary of Terms and Qualifiers**

Work Order: 16-10-0502 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without furthe clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Ε	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.

- Χ % Recovery and/or RPD out-of-range.
- Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents



		200 mg			2CH1	
	edex Package Tracking BDB2 2363 3902 Express US Airbill	Form D	215		leciments Proj	•
Ī	From / /		Package Service • To mose order has changed. Please select car	st locations. refully.	Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.	-
	Date 10/6/16	Next Busin	ness Day	2 or 3 Business	Days	
	Sender's Lyan Smith Phone 760 764-2885	FedEx First ( Earliest next busi locations. Friday Monday unless S	Overnight siness morning delivery to select y shipments will be delivered on SATURDAY Delivery is selected.	FedEx 2Day A.N Second business mom Seturday Delivery NOT	nina.*	
	Company C G ROXANE CO	FedEx Priori Next business me delivered on More is selected.	rity Overnight morning,* Friday shipments will be onday unless SATURDAY Delivery	will be delivered on Mo Delivery is selected.	moon.* Thursday shipments onday unless SATURDAY	
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	0117230482	Acct. No. in Sect 1 will be billed.	Recipient	Third-Party Cro	edit Card Cash/Check	
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					of Arterior actions, comment of the second	-

Calscience

WORK ORDER NUMBER: 16-10- 0502

SAMPLE RECEIPT CHECKLIST

COOLE	R	1	OF	)

CLIENT: <u>Creosyntec</u>	DATE: 10	1071	2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2 6 °C (w/	l	□ Samp	
CUSTODY SEAL:  Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A  Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A		ed by: <u> </u>	
SAMPLE CONDITION:  Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  Sampling date  Sampling time  Matrix  Number of containers		No D	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished to Sampler's name indicated on COC  Sample container label(s) consistent with COC  Sample container(s) intact and in good condition  Proper containers for analyses requested  Sufficient volume/mass for analyses requested			0 0 0 0
Samples received within holding time  Aqueous samples for certain analyses received within 15-minute holding time  □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen  Proper preservation chemical(s) noted on COC and/or sample container  Unpreserved aqueous sample(s) received for certain analyses		0	
□ Volatile Organics □ Total Metals ☑ Dissolved Metals  Container(s) for certain analysis free of headspace			۵
Tedlar™ bag(s) free of condensation		 2-3 Δ	4
Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® () ☐ TerraCore  Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ Other Matrix ()  Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/	25AGBp	125PB AGJ <b>s</b> ———— — ——— ag	778_

# WORK ORDER NUMBER: 16-10- 0502

SAMPLE ANOMALY REPORT

DATE: 10 / \_\_\_ / 2016

SAMPLE	S, CONTAIN	IERS, AN	D LABEL	S:		Commer	nts		
☐ Sample	(s) NOT RECE	EIVED but	listed on Co	ЭC					
☐ Sample	(s) received bu	at NOT LIS	TED on CC	C					
☐ Holding	time expired (	list client c	r ECI samp	le ID and ana	lysis)				
□ Insuffici	ent sample am	nount for re	quested ar	nalysis (list ana	alysis)				
☐ Imprope	er container(s)	used (list a	analysis)						
□ Imprope	er preservative	used (list	analysis)						
☐ No pres	ervative noted	on COC o	or label (list	analysis and	notify lab)				
☐ Sample	container(s) n	ot labeled				4) re	ceived	Confair	ser
☐ Client sa	ample label(s)	illegible (li	st containe	r type and ana	alysis)	<u>+</u> 0	Y. V:550	lved N	letals lab filter
☑ Client s	ample label(s)	do not ma	tch COC (c	omment)		Tuster	nd of	Dissol	led Metals
″ □ Proje	ect information	1				-fiel	d filte	yed.	
☐ Clier	nt sample ID					1	`		
□ Sam	pling date and	l/or time							
□ Num	nber of contain	er(s)							
<b>/</b> Req	uested analysi	s							
Sample	container(s) c	ompromis	ed (comme	nt)					
☐ Brok	ken					<del>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>			
☐ Wate	er present in s	ample con	tainer						
☐ Air sam	ple container(s	s) compror	nised (comi	ment)					
☐ Flat									
□ Very	low in volume	•							
□ Leal	king (not transf	ferred; dup	licate bag s	submitted)					
□ Leal	king (transferre	ed into ECI	Tedlar™ b	ags*)					
□ Leal	king (transferre	ed into clie	nt's Tedlar <sup>⊤</sup>	™ bags*)					
* Transfe	erred at client's req	uest.							
MISCELL	_ANEOUS: ([	Describe)				Commer	nts		
HEADSP	ACE:								
	vith bubble > 6 mm	or ¼ inch for	r volatile organ	ic or dissolved gas	s analysis)	(Containers w	th bubble for othe	er analysis)	
ECI	ECI	Total	ECI	ECI	Total	ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis
Sample ID	Container ID	Number**	Sample ID	Container ID	Number**	Sample ID	Container ID	Number	Nequested Allalysis
					4				
		1							
		<u> </u>	<b>.</b>	<u> </u>				<u></u>	/
Comments	S:							r	Reported by:
									Reported by: 771
** Record the	total number of co	ontainers (i.e.	, vials or bottle	s) for the affected	sample.			К	eviewed by: 1011



Date of Report: 09/06/2016

Kevin Coffman

Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

Client Project: CG Roxane Bacteriological **BCL Project:** 

1624332 **BCL Work Order:** B245307 Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 9/1/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



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1624332-02

1624332-03

Reported: 09/06/2016 16:05 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

> Receive Date: Sampling Date:

Sample Depth:

Sample Type: District ID: System Number: Station Number: Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C: 0.6

Receive Date:

Sampling Date:

Sample Depth:

Sample Type: District ID: System Number: Station Number: Sample Site: ROUTINE Residual Chlorine, ppm:

Lab Matrix:

Lab Matrix:

## **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 

1624332-01 **COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-03-090116

Kenjo Agustsson

**COC Number: Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-02-090116

Kenjo Agustsson

**Project Number:** 

Sampling Point:

Sampled By:

COC Number:

Sampling Location:

MW-01-090116 Kenjo Agustsson Lab Temperature, C:

**Receive Date:** 

Sampling Date:

Sample Depth: Water

09/01/2016 17:13

09/01/2016 13:00

09/01/2016 17:13

09/01/2016 13:32

09/01/2016 17:13 09/01/2016 13:44

Water

Groundwater

Water

Groundwater

Lab Matrix: Groundwater Sample Type:

District ID: System Number: Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

Report ID: 1000519081

Page 3 of 7

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

#### 1624332-01

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

Sampling Point: MW-03-090116
Sampled By: Kenjo Agustsson

**Receive Date:** 09/01/2016 17:13 **Sampling Date:** 09/01/2016 13:00

Sample Depth: --Sample Matrix: Water

District ID:

System Number:

Station Number:

Sample Site: ROUTINE

Residual Chlorine, ppm:

Temperature, C: 0.6

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	12	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/05/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/05/2016	

Report ID: 1000519081 4100 Atlas

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

### 1624332-02

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-02-090116

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/01/2016 17:13

 Sampling Date:
 09/01/2016 13:32

Sample Depth: --Sample Matrix: Water

District ID:

System Number: Station Number:

Sample Site: ROUTINE

Residual Chlorine, ppm:

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
924 Anacapa Street Suite 4A
93101
Project Number: CG Roxane
Project Manager: Kevin Coffman

#### 1624332-03

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-01-090116

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/01/2016 17:13

 Sampling Date:
 09/01/2016 13:44

Sample Depth: --Sample Matrix: Water

District ID:

System Number: Station Number:

Sample Site:

ROUTINE

Residual Chlorine, ppm:

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	

Report ID: 1000519081 4100 Atlas Court Bakerstield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 6 of 7



Geosyntec Consultants 09/06/2016 16:05 Reported: Project: Bacteriological 924 Anacapa Street Suite 4A Santa Barbara, CA 93101 Project Number: CG Roxane Project Manager: Kevin Coffman

**Notes And Definitions** 

MPN Most Probable Number

Page 7 of 7 Report ID: 1000519081



Date of Report: 09/12/2016

Kevin Coffman

Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

Client Project: CG Roxane Bacteriological **BCL Project:** 

1624806 **BCL Work Order:** B245868 Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 9/7/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



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Reported: 09/12/2016 18:53 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

## **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 

1624806-01 **COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point:

OW-8US-090716 Kenjo Agustsson

Sampled By:

Receive Date:

09/07/2016 16:45

Sampling Date:

09/07/2016 13:40

Sample Depth: Lab Matrix:

Water

Groundwater Sample Type:

District ID:

System Number: Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm:

Lab Temperature, C: 2.1

1624806-02

**COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

OW-8US-090716-DUP

Kenjo Agustsson

Receive Date:

09/07/2016 16:45

Sampling Date:

09/07/2016 13:40

Sample Depth: Lab Matrix:

Water

Groundwater Sample Type:

District ID:

System Number: Station Number:

Sample Site: REPEAT Residual Chlorine, ppm: Lab Temperature, C:

1624806-03

COC Number:

**Project Number:** 

Sampling Point: Sampled By:

Sampling Location:

MW-12-090716 Kenjo Agustsson

**Receive Date:** 09/07/2016 16:45

Sampling Date:

09/07/2016 13:50

Sample Depth: Lab Matrix:

Water

Sample Type:

Groundwater

District ID:

System Number: Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm:

Lab Temperature, C:

Reported: 09/12/2016 18:53 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

## **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 

1624806-04 COC Number:

**Project Number:** 

Sampling Location:

Sampling Point:

MW-07-090716

Sampled By: Kenjo Agustsson

Receive Date:

09/07/2016 16:45

Sampling Date:

09/07/2016 13:30

Sample Depth: Lab Matrix:

Water

Sample Type:

Groundwater

District ID:

System Number:

Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

1624806-05

**COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-06-090716

Kenjo Agustsson

Receive Date:

09/07/2016 16:45

Sampling Date:

09/07/2016 13:35

Sample Depth: Lab Matrix:

Water

Sample Type:

Groundwater

District ID:

System Number: Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

1624806-06

COC Number:

**Project Number:** 

Sampling Point: Sampled By:

Sampling Location:

MW-13-090716 Kenjo Agustsson **Receive Date:** 

09/07/2016 16:45

Sampling Date:

09/07/2016 12:50

Sample Depth:

Water

Lab Matrix: Sample Type:

Groundwater

District ID:

System Number: Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

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. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation. 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 4 of 13

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

## **Laboratory / Client Sample Cross Reference**

**Laboratory** Client Sample Information

1624806-07 COC Number:

Project Number: --Sampling Location: ---

Sampling Point: MW-09-090716 Sampled By: Kenjo Agustsson **Receive Date:** 09/07/2016 16:45 **Sampling Date:** 09/07/2016 13:50

Groundwater

Sample Depth: --Lab Matrix: Water

District ID:
System Number:
Station Number:

Sample Type:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

Report ID: 1000521138 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 5 of 13

Project Number: CG Roxane Project Manager: Kevin Coffman

Project: Bacteriological

Reported:

#### 1624806-01

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

OW-8US-090716 **Sampling Point:** Kenjo Agustsson Sampled By:

09/07/2016 16:45 Receive Date: Sampling Date: 09/07/2016 13:40

Sample Depth: Sample Matrix: Water District ID:

System Number:

Station Number:

ROUTINE Sample Site:

Residual Chlorine, ppm:

2.1 Temperature, C:

09/12/2016 18:53

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Report ID: 1000521138 Page 6 of 13

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

### 1624806-02

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

Sampling Point: OW-8US-090716-DUP

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/07/2016 16:45

 Sampling Date:
 09/07/2016 13:40

Sample Depth: --Sample Matrix: Water

District ID:

System Number:

Station Number:

Sample Site: Residual Chlorine, ppm: **REPEAT** 

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

#### 1624806-03

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-12-090716

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/07/2016 16:45

 Sampling Date:
 09/07/2016 13:50

Sample Depth: --Sample Matrix: Water

District ID:

System Number: Station Number:

Sample Site:

ROUTINE

Residual Chlorine, ppm:

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Geosyntec Consultants Reported: Project: Bacteriological 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

Project Number: CG Roxane Project Manager: Kevin Coffman

#### 1624806-04

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-07-090716 **Sampling Point:** Kenjo Agustsson Sampled By: 09/07/2016 16:45 Receive Date: Sampling Date: 09/07/2016 13:30

Sample Depth: Sample Matrix: Water District ID:

System Number:

Station Number:

Sample Site: Residual Chlorine, ppm: ROUTINE

09/12/2016 18:53

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	2	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	2	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	4.5	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	2	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	4.5	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Report ID: 1000521138 Page 9 of 13

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

### 1624806-05

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-06-090716

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/07/2016 16:45

 Sampling Date:
 09/07/2016 13:35

Sample Depth: --Sample Matrix: Water

District ID:

System Number:

Station Number:

Sample Site: Residual Chlorine, ppm: ROUTINE

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Report ID: 1000521138

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Reported: 09/12/2016 18:53 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

### 1624806-06

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-13-090716 **Sampling Point:** Kenjo Agustsson Sampled By: 09/07/2016 16:45 Receive Date: Sampling Date: 09/07/2016 12:50

Sample Depth: Sample Matrix: Water District ID:

System Number: Station Number:

ROUTINE Sample Site:

Residual Chlorine, ppm:

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	1	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Report ID: 1000521138 Page 11 of 13

Project Number: CG Roxane
Project Manager: Kevin Coffman

Reported:

### 1624806-07

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-09-090716

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/07/2016 16:45

 Sampling Date:
 09/07/2016 13:50

Sample Depth: --Sample Matrix: Water

District ID:

System Number: Station Number:

Sample Site:

ROUTINE

09/12/2016 18:53

Residual Chlorine, ppm:

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	5	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	5	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	23	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Report ID: 1000521138 4100 Atlas Court Bakerstield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 12 of 13

Geosyntec Consultants 09/12/2016 18:53 Reported: Project: Bacteriological 924 Anacapa Street Suite 4A Santa Barbara, CA 93101 Project Number: CG Roxane Project Manager: Kevin Coffman

#### **Notes And Definitions**

MPN Most Probable Number

Report ID: 1000521138

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Date of Report: 09/13/2016

Kevin Coffman

Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

Client Project: CG Roxane BCL Project: Bacteriological

BCL Work Order: 1625015
Invoice ID: B245898

Enclosed are the results of analyses for samples received by the laboratory on 9/8/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



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1625015-04 - MW-04-090816	
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Reported: 09/13/2016 12:10 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

## **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 

1625015-01 COC Number:

**Project Number:** 

Sampling Location:

Sampling Point:

MW-08-090816 Kenjo Agustsson

Sampled By:

Receive Date:

09/08/2016 17:40

Sampling Date: Sample Depth:

09/08/2016 14:05

Lab Matrix:

Water

Groundwater Sample Type:

District ID:

System Number:

Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm:

Lab Temperature, C: 1.6

1625015-02

**COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-11-090816

Kenjo Agustsson

Receive Date:

09/08/2016 17:40

Sampling Date:

09/08/2016 13:55

Sample Depth: Lab Matrix:

Water

Sample Type:

Groundwater

District ID:

System Number:

Station Number:

Sample Site: ROUTINE

Residual Chlorine, ppm:

Lab Temperature, C:

1625015-03

COC Number:

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-05-090816

Kenjo Agustsson

**Receive Date:** 

09/08/2016 17:40

Sampling Date:

09/08/2016 13:57

Sample Depth:

Water

Lab Matrix: Sample Type:

Groundwater

District ID:

System Number:

Station Number:

Sample Site: ROUTINE

Residual Chlorine, ppm: Lab Temperature, C:

Report ID: 1000521453

Page 3 of 10

Reported: 09/13/2016 12:10 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

## **Laboratory / Client Sample Cross Reference**

**Client Sample Information** Laboratory

1625015-04 COC Number:

> **Project Number:** Sampling Location:

Sampling Point: MW-04-090816 Kenjo Agustsson

Sampled By:

Receive Date:

09/08/2016 17:40

Sampling Date:

09/08/2016 14:00

Sample Depth:

Water

Lab Matrix: Sample Type:

Groundwater

District ID:

System Number:

Station Number:

Sample Site: ROUTINE Residual Chlorine, ppm: Lab Temperature, C:

1625015-05

**COC Number:** 

**Project Number:** 

Sampling Location:

Sampling Point: Sampled By:

MW-04-090816-DUP Kenjo Agustsson

Receive Date:

09/08/2016 17:40

Sampling Date:

09/08/2016 14:00

Sample Depth: Lab Matrix:

Water

Sample Type:

Groundwater

District ID:

System Number:

Station Number:

Sample Site: OTHER Residual Chlorine, ppm: Lab Temperature, C:

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.

Project Number: CG Roxane Project Manager: Kevin Coffman

Project: Bacteriological

Reported:

#### 1625015-01

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-08-090816 **Sampling Point:** 

Kenjo Agustsson Sampled By: 09/08/2016 17:40

Receive Date: Sampling Date: 09/08/2016 14:05

Sample Depth: Sample Matrix: Water District ID:

System Number:

Station Number: Sample Site:

ROUTINE

Residual Chlorine, ppm:

1.6 Temperature, C:

09/13/2016 12:10

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Report ID: 1000521453 Page 5 of 10 Geosyntec Consultants Reported: 924 Anacapa Street Suite 4A Project: Bacteriological Santa Barbara, CA 93101

Project Number: CG Roxane Project Manager: Kevin Coffman

09/13/2016 12:10

ROUTINE

#### 1625015-02

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-11-090816 **Sampling Point:** Kenjo Agustsson Sampled By: 09/08/2016 17:40 Receive Date: Sampling Date: 09/08/2016 13:55

Sample Depth: Sample Matrix: Water District ID:

System Number:

Station Number: Sample Site:

Residual Chlorine, ppm:

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

09/13/2016 12:10

Reported:

#### 1625015-03

## Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

 Sampling Point:
 MW-05-090816

 Sampled By:
 Kenjo Agustsson

 Receive Date:
 09/08/2016 17:40

 Sampling Date:
 09/08/2016 13:57

Sample Depth: --Sample Matrix: Water

District ID:

System Number:

Station Number: Sample Site:

Residual Chlorine, ppm:

ROUTINE

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Report ID: 1000521453 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Page 7 of 10

Reported: 09/13/2016 12:10 Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

#### 1625015-04

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-04-090816 **Sampling Point:** Kenjo Agustsson Sampled By: 09/08/2016 17:40 Receive Date: Sampling Date: 09/08/2016 14:00

Sample Depth: Sample Matrix: Water District ID:

System Number: Station Number:

Sample Site:

ROUTINE

Residual Chlorine, ppm:

Temperature, C:

### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	Date Completed	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Report ID: 1000521453 Page 8 of 10

Project Number: CG Roxane Project Manager: Kevin Coffman

Project: Bacteriological

Reported:

#### 1625015-05

## Water Analysis (Bacteriological)

COC Number:

**Project Number:** Sampling Location:

MW-04-090816-DUP **Sampling Point:** Kenjo Agustsson Sampled By: 09/08/2016 17:40 Receive Date: Sampling Date: 09/08/2016 14:00

Sample Depth: Sample Matrix: Water District ID:

System Number: Station Number:

Sample Site:

OTHER

09/13/2016 12:10

Residual Chlorine, ppm:

Temperature, C:

## **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	<b>Date Started</b>	<b>Date Completed</b>	Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Report ID: 1000521453 Page 9 of 10

09/13/2016 12:10 Reported: Project: Bacteriological Project Number: CG Roxane Project Manager: Kevin Coffman

Santa Barbara, CA 93101

Geosyntec Consultants

924 Anacapa Street Suite 4A

#### **Notes And Definitions**

MPN Most Probable Number

Report ID: 1000521453

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Date of Report: 09/19/2016

Kevin Coffman

Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

Client Project: [none]

Bacteriological **BCL Project:** 

1625972 **BCL Work Order:** B246628 Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 9/16/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



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1625972-01 - MW-15-091616	
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Report ID: 1000524082

Geosyntec Consultants Reported: 09/19/2016 17:40 Project: Bacteriological 924 Anacapa Street Suite 4A

Santa Barbara, CA 93101 Project Number: [none] Project Manager: Kevin Coffman

#### **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 

1625972-01 **COC Number:** 

**Project Number: Sampling Location:** 

Sampling Point: MW-15-091616 Sampled By: Ryan Smith

09/16/2016 14:21 Receive Date: Sampling Date: 09/16/2016 09:15

Sample Depth: Lab Matrix: Water

Groundwater Sample Type:

District ID: System Number: Station Number: Sample Site: Routine Residual Chlorine, ppm: Lab Temperature, C: 1.6

Report ID: 1000524082 Page 3 of 5 Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101 **Reported:** 09/19/2016 17:40

Project: Bacteriological

Project Number: [none]

Project Manager: Kevin Coffman

#### 1625972-01

#### Water Analysis (Bacteriological)

COC Number: ---

Project Number: --Sampling Location: ---

Sampling Point: MW-15-091616
Sampled By: Ryan Smith

**Receive Date:** 09/16/2016 14:21 **Sampling Date:** 09/16/2016 09:15

Sample Depth: --Sample Matrix: Water

District ID:

System Number:

Station Number: Sample Site:

Routine

Residual Chlorine, ppm:

Temperature, C: 1.6

#### **Multiple Tube Fermentation (5,5,5)**

					Initial			Lab
Constituent	Result	Units	Method	Analyst	Dilution	Date Started	Date Completed	Quals
Total Coliform, Presumptive Test	1	Positive Tubes	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	_
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	
Fecal Coliform, Confirmed Test	1	Positive Tubes	SM-9221E	FBV	1	09/16/2016 14:30	09/19/2016	
Fecal Coliform, Density	2.0	MPN/100ml	SM-9221E	FBV	1	09/16/2016 14:30	09/19/2016	

Report ID: 1000524082



Geosyntec Consultants 924 Anacapa Street Suite 4A Santa Barbara, CA 93101

09/19/2016 17:40 Reported: Project: Bacteriological

Project Number: [none]

Project Manager: Kevin Coffman

#### **Notes And Definitions**

MPN Most Probable Number

Report ID: 1000524082



#### Calscience



#### **WORK ORDER NUMBER: 16-09-0766**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

**Client:** Geosyntec Consultants

Client Project Name: Crystal Geyser Phase 3 / SB0794-02

Attention: Kevin Coffman

924 Anacapa Street

Monde

Suite 4A

Santa Barbara, CA 93101-2177

Approved for release on 09/20/2016 by:

Stephen Nowak Project Manager

Email your PM >

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



#### **Contents**

Client Project Name:	Crystal Geyser Phase 3 / SB0794-02
Work Order Number:	16-09-0766

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9	Chain-of-Custody/Sample Receipt Form	17



#### **Work Order Narrative**

Work Order: 16-09-0766 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 09/12/16. They were assigned to Work Order 16-09-0766.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



#### **Sample Summary**

Client: Geosyntec Consultants

Work Order:

16-09-0766

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name:

Crystal Geyser Phase 3 / SB0794-02

PO Number:

Date/Time Received:

09/12/16 16:30

. . .

Number of 2

Containers:

Attn: Kevin Coffman

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SV-01-5-083016	16-09-0766-1	08/30/16 10:59	1	Air
SV-01-5-083016-DUP	16-09-0766-2	08/30/16 10:59	1	Air



#### **Detections Summary**

Client: Geosyntec Consultants

Work Order:

16-09-0766

924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Project Name:

Crystal Geyser Phase 3 / SB0794-02

Received:

09/12/16

Attn: Kevin Coffman

Page 1 of 1

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
C)/ 04 F 000040 (40 00 0700 4)						
SV-01-5-083016 (16-09-0766-1)						
Acetone	30		4.8	ug/m3	EPA TO-15	N/A
Trichloroethene	9.5		2.7	ug/m3	EPA TO-15	N/A
SV-01-5-083016-DUP (16-09-0766-2)						
Acetone	81		5.6	ug/m3	EPA TO-15	N/A
2-Butanone	9.1		5.2	ug/m3	EPA TO-15	N/A
Vinyl Acetate	8.5		8.2	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/12/16 16-09-0766 N/A EPA TO-15

Units:

ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-083016	16-09-0766-1-A	08/30/16 10:59	Air	GC/MS YY	N/A	09/16/16 21:15	160916L01
<u>Parameter</u>		Result	RL	•	<u>DF</u>	Qua	<u>lifiers</u>
Acetone		30	4.8	3	1.00		
Benzene		ND	1.6	6	1.00		
Benzyl Chloride		ND	7.8	3	1.00		
Bromodichloromethane		ND	3.4	1	1.00		
Bromoform		ND	5.2	2	1.00		
Bromomethane		ND	1.9	)	1.00		
2-Butanone		ND	4.4	ļ	1.00		
n-Butylbenzene		ND	2.7	,	1.00		
sec-Butylbenzene		ND	2.7	7	1.00		
tert-Butylbenzene		ND	2.7	7	1.00		
Carbon Disulfide		ND	6.2	2	1.00		
Carbon Tetrachloride		ND	3.1	ſ	1.00		
Chlorobenzene		ND	2.3	3	1.00		
Chloroethane		ND	1.3	3	1.00		
Chloroform		ND	2.4	ı	1.00		
Chloromethane		ND	1.0	)	1.00		
Dibromochloromethane		ND	4.3	3	1.00		
1,2-Dibromoethane		ND	3.8	3	1.00		
1,2-Dichlorobenzene		ND	3.0	)	1.00		
1,3-Dichlorobenzene		ND	3.0	)	1.00		
1,4-Dichlorobenzene		ND	3.0	)	1.00		
Dichlorodifluoromethane		ND	2.5	5	1.00		
1,1-Dichloroethane		ND	2.0	)	1.00		
1,2-Dichloroethane		ND	2.0	)	1.00		
1,1-Dichloroethene		ND	2.0	)	1.00		
c-1,2-Dichloroethene		ND	2.0	)	1.00		
t-1,2-Dichloroethene		ND	2.0	)	1.00		
1,2-Dichloropropane		ND	2.3		1.00		
c-1,3-Dichloropropene		ND	2.3	3	1.00		
t-1,3-Dichloropropene		ND	4.5		1.00		
Dichlorotetrafluoroethane		ND	14		1.00		
1,1-Difluoroethane		ND	5.4		1.00		
Ethylbenzene		ND	2.2	2	1.00		
4-Ethyltoluene		ND	2.5		1.00		
Hexachloro-1,3-Butadiene		ND	16		1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



Toluene-d8

#### **Analytical Report**

 Geosyntec Consultants
 Date Received:
 09/12/16

 924 Anacapa Street, Suite 4A
 Work Order:
 16-09-0766

 Santa Barbara, CA 93101-2177
 Preparation:
 N/A

 Method:
 EPA TO-15

 Units:
 ug/m3

 Project: Crystal Geyser Phase 3 / SB0794-02
 Page 2 of 6

<u>DF</u> **Parameter** Result <u>RL</u> Qualifiers ND 1.00 2-Hexanone 6.1 Isopropanol ND 12 1.00 Methyl-t-Butyl Ether (MTBE) ND 7.2 1.00 Methylene Chloride ND 17 1.00 4-Methyl-2-Pentanone ND 6.1 1.00 Styrene ND 6.4 1.00 1,1,2,2-Tetrachloroethane ND 6.9 1.00 Tetrachloroethene ND 3.4 1.00 Toluene ND 1.9 1.00 1,1,1-Trichloroethane ND 2.7 1.00 ND 1,1,2-Trichloroethane 2.7 1.00 Trichloroethene 9.5 2.7 1.00 Trichlorofluoromethane ND 5.6 1.00 1,1,2-Trichloro-1,2,2-Trifluoroethane ND 11 1.00 1,2,4-Trimethylbenzene ND 7.4 1.00 1,3,5-Trimethylbenzene ND 2.5 1.00 Vinyl Acetate ND 7.0 1.00 Vinyl Chloride ND 1.3 1.00 o-Xylene ND 2.2 1.00 p/m-Xylene ND 8.7 1.00 Surrogate Rec. (%) **Control Limits** Qualifiers 1,4-Bromofluorobenzene 70 68-134 1,2-Dichloroethane-d4 100 67-133

102

70-130

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method:

16-09-0766 N/A EPA TO-15

09/12/16

Units:

ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-083016-DUP	16-09-0766-2-A	08/30/16 10:59	Air	GC/MS YY	N/A	09/16/16 22:12	160916L01
<u>Parameter</u>		Result	RL	:	<u>DF</u>	Qua	<u>lifiers</u>
Acetone		81	5.6	6	1.17		
Benzene		ND	1.9	)	1.17		
Benzyl Chloride		ND	9.1		1.17		
Bromodichloromethane		ND	3.9	)	1.17		
Bromoform		ND	6.0	)	1.17		
Bromomethane		ND	2.3	3	1.17		
2-Butanone		9.1	5.2	2	1.17		
n-Butylbenzene		ND	3.2	2	1.17		
sec-Butylbenzene		ND	3.2	2	1.17		
tert-Butylbenzene		ND	3.2	2	1.17		
Carbon Disulfide		ND	7.3	3	1.17		
Carbon Tetrachloride		ND	3.7	•	1.17		
Chlorobenzene		ND	2.7	•	1.17		
Chloroethane		ND	1.5	5	1.17		
Chloroform		ND	2.9	)	1.17		
Chloromethane		ND	1.2	2	1.17		
Dibromochloromethane		ND	5.0	)	1.17		
1,2-Dibromoethane		ND	4.5	5	1.17		
1,2-Dichlorobenzene		ND	3.5	5	1.17		
1,3-Dichlorobenzene		ND	3.5	5	1.17		
1,4-Dichlorobenzene		ND	3.5	5	1.17		
Dichlorodifluoromethane		ND	2.9	)	1.17		
1,1-Dichloroethane		ND	2.4	ļ.	1.17		
1,2-Dichloroethane		ND	2.4	ŀ	1.17		
1,1-Dichloroethene		ND	2.3	3	1.17		
c-1,2-Dichloroethene		ND	2.3	3	1.17		
t-1,2-Dichloroethene		ND	2.3	3	1.17		
1,2-Dichloropropane		ND	2.7	•	1.17		
c-1,3-Dichloropropene		ND	2.7	•	1.17		
t-1,3-Dichloropropene		ND	5.3	3	1.17		
Dichlorotetrafluoroethane		ND	16		1.17		
1,1-Difluoroethane		ND	6.3	3	1.17		
Ethylbenzene		ND	2.5	;	1.17		
4-Ethyltoluene		ND	2.9		1.17		
Hexachloro-1,3-Butadiene		ND	19		1.17		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



Geosyntec Consultants	Da	09/12/16				
924 Anacapa Street, Suite 4A	W	ork Order:		16-09-0766		
Santa Barbara, CA 93101-2177	Pr	eparation:		N/A		
,		ethod:		EPA TO-15		
		nits:		ug/m3		
Project: Crystal Geyser Phase 3 / SB0794-02	O.	iii.		Page 4 of 6		
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers		
2-Hexanone	ND	7.2	1.17			
Isopropanol	ND	14	1.17			
Methyl-t-Butyl Ether (MTBE)	ND	8.4	1.17			
Methylene Chloride	ND	20	1.17			
4-Methyl-2-Pentanone	ND	7.2	1.17			
Styrene	ND	7.5	1.17			
1,1,2,2-Tetrachloroethane	ND	8.0	1.17			
Tetrachloroethene	ND	4.0	1.17			
Toluene	ND	2.2	1.17			
1,1,1-Trichloroethane	ND	3.2	1.17			
1,1,2-Trichloroethane	ND	3.2	1.17			
Trichloroethene	ND	3.1	1.17			
Trichlorofluoromethane	ND	6.6	1.17			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.17			
1,2,4-Trimethylbenzene	ND	8.6	1.17			
1,3,5-Trimethylbenzene	ND	2.9	1.17			
Vinyl Acetate	8.5	8.2	1.17			
Vinyl Chloride	ND	1.5	1.17			
o-Xylene	ND	2.5	1.17			
p/m-Xylene	ND	10	1.17			
<u>Surrogate</u>	Rec. (%)	Control Limits	Qualifiers			
1,4-Bromofluorobenzene	85	68-134				
1,2-Dichloroethane-d4	102	67-133				
Toluene-d8	103	70-130				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/12/16 16-09-0766 N/A

Units:

EPA TO-15 ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-021-17482	N/A	Air	GC/MS YY	N/A	09/16/16 16:18	160916L01
Parameter		Result	<u>R</u>	<u>L</u>	<u>DF</u>	Qua	<u>llifiers</u>
Acetone		ND	4	.8	1.00		
Benzene		ND	1	.6	1.00		
Benzyl Chloride		ND	7	.8	1.00		
Bromodichloromethane		ND	3	.4	1.00		
Bromoform		ND	5	.2	1.00		
Bromomethane		ND	1	.9	1.00		
2-Butanone		ND	4	.4	1.00		
n-Butylbenzene		ND	2	.7	1.00		
sec-Butylbenzene		ND	2	.7	1.00		
tert-Butylbenzene		ND	2	.7	1.00		
Carbon Disulfide		ND	6	.2	1.00		
Carbon Tetrachloride		ND	3	.1	1.00		
Chlorobenzene		ND	2	.3	1.00		
Chloroethane		ND	1	.3	1.00		
Chloroform		ND	2	.4	1.00		
Chloromethane		ND	1	.0	1.00		
Dibromochloromethane		ND	4	.3	1.00		
1,2-Dibromoethane		ND	3	.8	1.00		
1,2-Dichlorobenzene		ND	3	.0	1.00		
1,3-Dichlorobenzene		ND	3	.0	1.00		
1,4-Dichlorobenzene		ND	3	.0	1.00		
Dichlorodifluoromethane		ND		.5	1.00		
1,1-Dichloroethane		ND	2	.0	1.00		
1,2-Dichloroethane		ND	2	.0	1.00		
1,1-Dichloroethene		ND		.0	1.00		
c-1,2-Dichloroethene		ND	2	.0	1.00		
t-1,2-Dichloroethene		ND	2	.0	1.00		
1,2-Dichloropropane		ND		.3	1.00		
c-1,3-Dichloropropene		ND	2	.3	1.00		
t-1,3-Dichloropropene		ND		.5	1.00		
Dichlorotetrafluoroethane		ND	1		1.00		
1,1-Difluoroethane		ND	5	.4	1.00		
Ethylbenzene		ND		.2	1.00		
4-Ethyltoluene		ND		.5	1.00		
Hexachloro-1,3-Butadiene		ND	1		1.00		
			•	-			

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



Geosyntec Consultants	Date Received:	09/12/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0766
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: Crystal Geyser Phase 3 / SB0794-02		Page 6 of 6

<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
2-Hexanone	ND	6.1	1.00	
Isopropanol	ND	12	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Styrene	ND	6.4	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	106	68-134		
1,2-Dichloroethane-d4	102	67-133		
Toluene-d8	101	70-130		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



#### **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation:

Method:

09/12/16 16-09-0766 N/A EPA TO-15

Project: Crystal Geyser Phase 3 / SB0794-02

Page 1 of 2

Quality Control Sample ID	Туре		Matrix	Ins	trument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	itch Number
095-01-021-17482	LCS		Air	GC	MS YY	N/A	09/16/	16 13:07	160916L01	
095-01-021-17482	LCSD		Air	GC	MS YY	N/A	09/16/	16 14:00	160916L01	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	68.60	116	63.76	107	67-133	56-144	7	0-30	
Benzene	79.87	83.36	104	83.26	104	70-130	60-140	0	0-30	
Benzyl Chloride	129.4	143.3	111	149.2	115	38-158	18-178	4	0-30	
Bromodichloromethane	167.5	175.8	105	174.7	104	70-130	60-140	1	0-30	
Bromoform	258.4	296.8	115	307.0	119	63-147	49-161	3	0-30	
Bromomethane	97.08	97.43	100	96.05	99	70-139	58-150	1	0-30	
2-Butanone	73.73	78.57	107	77.83	106	66-132	55-143	1	0-30	
n-Butylbenzene	137.2	152.3	111	158.1	115	50-150	33-167	4	0-30	
sec-Butylbenzene	137.2	148.8	108	154.2	112	50-150	33-167	4	0-30	
tert-Butylbenzene	137.2	154.5	113	160.1	117	50-150	33-167	4	0-30	
Carbon Disulfide	77.85	80.35	103	79.94	103	68-146	55-159	1	0-30	
Carbon Tetrachloride	157.3	161.6	103	161.6	103	70-136	59-147	0	0-30	
Chlorobenzene	115.1	119.9	104	124.6	108	70-130	60-140	4	0-30	
Chloroethane	65.96	68.44	104	66.15	100	65-149	51-163	3	0-30	
Chloroform	122.1	125.3	103	124.4	102	70-130	60-140	1	0-30	
Chloromethane	51.63	52.18	101	51.66	100	69-141	57-153	1	0-30	
Dibromochloromethane	213.0	223.3	105	232.9	109	70-138	59-149	4	0-30	
1,2-Dibromoethane	192.1	204.0	106	212.6	111	70-133	60-144	4	0-30	
1,2-Dichlorobenzene	150.3	164.3	109	170.0	113	48-138	33-153	3	0-30	
1,3-Dichlorobenzene	150.3	171.5	114	177.5	118	56-134	43-147	3	0-30	
1,4-Dichlorobenzene	150.3	173.2	115	178.5	119	52-136	38-150	3	0-30	
Dichlorodifluoromethane	123.6	127.0	103	124.3	101	67-139	55-151	2	0-30	
1,1-Dichloroethane	101.2	102.3	101	102.1	101	70-130	60-140	0	0-30	
1,2-Dichloroethane	101.2	101.4	100	100.8	100	70-132	60-142	1	0-30	
1,1-Dichloroethene	99.12	99.78	101	98.69	100	70-135	59-146	1	0-30	
c-1,2-Dichloroethene	99.12	101.3	102	101.4	102	70-130	60-140	0	0-30	
t-1,2-Dichloroethene	99.12	100.9	102	101.0	102	70-130	60-140	0	0-30	
1,2-Dichloropropane	115.5	120.5	104	119.7	104	70-130	60-140	1	0-30	
c-1,3-Dichloropropene	113.5	121.0	107	120.7	106	70-130	60-140	0	0-30	
t-1,3-Dichloropropene	113.5	123.3	109	122.2	108	70-147	57-160	1	0-30	
Dichlorotetrafluoroethane	174.8	191.4	109	186.3	107	51-135	37-149	3	0-30	
1,1-Difluoroethane	67.54	67.29	100	67.16	99	70-131	60-141	0	0-30	
Ethylbenzene	108.6	114.0	105	118.2	109	70-130	60-140	4	0-30	
4-Ethyltoluene	122.9	133.9	109	139.1	113	68-130	58-140	4	0-30	
Hexachloro-1,3-Butadiene	266.6	288.3	108	303.6	114	44-146	27-163	5	0-30	
2-Hexanone	102.4	113.6	111	119.0	116	70-136	59-147	5	0-30	

RPD: Relative Percent Difference. CL:

CL: Control Limits



#### **Quality Control - LCS/LCSD**

Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177 Date Received: Work Order: Preparation: Method: 09/12/16 16-09-0766 N/A EPA TO-15

Project: Crystal Geyser Phase 3 / SB0794-02

Page 2 of 2

<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
Isopropanol	61.45	68.21	111	62.96	102	57-135	44-148	8	0-30	
Methyl-t-Butyl Ether (MTBE)	90.13	93.88	104	93.91	104	68-130	58-140	0	0-30	
Methylene Chloride	86.84	85.84	99	85.46	98	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	114.4	112	114.4	112	70-130	60-140	0	0-30	
Styrene	106.5	108.3	102	112.6	106	65-131	54-142	4	0-30	
1,1,2,2-Tetrachloroethane	171.6	193.7	113	199.9	116	63-130	52-141	3	0-30	
Tetrachloroethene	169.6	178.3	105	186.0	110	70-130	60-140	4	0-30	
Toluene	94.21	95.65	102	99.37	105	70-130	60-140	4	0-30	
1,1,1-Trichloroethane	136.4	139.7	102	139.9	103	70-130	60-140	0	0-30	
1,1,2-Trichloroethane	136.4	146.8	108	147.5	108	70-130	60-140	0	0-30	
Trichloroethene	134.3	143.6	107	142.2	106	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	148.4	106	145.3	103	63-141	50-154	2	0-30	4
1,1,2-Trichloro-1,2,2- Trifluoroethane	191.6	204.3	107	204.9	107	70-136	59-147	0	0-30	
1,2,4-Trimethylbenzene	122.9	143.0	116	148.1	121	60-132	48-144	4	0-30	
1,3,5-Trimethylbenzene	122.9	134.5	109	139.8	114	62-130	51-141	4	0-30	
Vinyl Acetate	88.03	87.31	99	86.90	99	58-130	46-142	0	0-30	
Vinyl Chloride	63.91	65.61	103	64.79	101	70-134	59-145	1	0-30	
o-Xylene	108.6	112.9	104	116.7	107	69-130	59-140	3	0-30	
p/m-Xylene	217.1	239.8	110	247.3	114	70-132	60-142	3	0-30	

Total number of LCS compounds: 55
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass



#### **Summa Canister Vacuum Summary**

Work Order: 16-09-0766				Page 1 of 1
Sample Name	Vacuum Out	Vacuum In	Equipment	Description
SV-01-5-083016	-29.50 in Hg	-8.00 in Hg	LC369	Summa Canister 1L
SV-01-5-083016-DUP	-29.50 in Ha	-9.00 in Ha	LC1032	Summa Canister 1L



#### **Sample Analysis Summary Report**

Work Order: 16-09-0766				Page 1 of 1
Method	<u>Extraction</u>	Chemist ID	<u>Instrument</u>	Analytical Location
EPA TO-15	N/A	953	GC/MS YY	2



#### **Glossary of Terms and Qualifiers**

Work Order: 16-09-0766 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

# **AIR CHAIN OF CUSTODY RECORD**

WO # / LAB USE ONLY

9/12/2016 Р PAGE: 16-09-0766 7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT: Calscience

LABORAT	LABORATORY CLIENT: Geosyntec Consultants	onsultants			CLIENT PROJE	CLIENT PROJECT NAME / NUMBER		Crystal Geyser Phase 3	Phase 3			P.O. NO.:			
ADDRESS					PROJECT ADDRESS							SB0794-02	22		
	924 Anacapa St. Ste 4A						1210 US 395					LAB CONTACT OR QUOTE NO.	T OR QUO	TE NO.:	
OITY: S	Santa Barbara	STATE: CA	ZIP: 93101		CITY: Olancha	cha		STATE:	CA ZIP.	93549		Stephen Nowak	Nowak (PRINT)		
TEL: 86	805-897-3800	E-MAIL: Kcoffman@geosyntec.com	syntec.com		PROJECT CONTACT		Kevin Coffman						Michae	Michael Cronin	
TURNAR	h surcharges I 24 HR	may apply to any TAT not "STANDARD"):	YS <b>M</b> STANDARD	IDARD	CI EDD	O UNITS							REQU	REQUESTED ANALYSES	LYSES
SPECIAL	SPECIAL INSTRUCTIONS: Geosyntec Specific EDD								·						
			Air Type	San	mpling Equipment	nt	Start St	Start Sampling Information	ation	Stop S	Stop Sampling Information	nation			
8 8 <b>5</b>	SAMPLEID	FIELD ID / POINT OF COLLECTION	(i) Indoor (SV) Soil Vap. (A) Ambient	Media ID#	Canister Size 6L or 1L	Flow Controller ID#	Date	Time (24 hr clock)	Canister Pressure ("Hg)	Date	Time (24 hr clock)	Canister Pressure ("Hg)	∂l-OT		
	SV-01-5-083016	SV-01	SV	69827	1	A71	8/30/2016	10:54	-26.07	8/30/2016	10:59	-4.73	×		
7	SV-01-5-083016-DUP	SV-01	SV	LC1032	11	A493	8/30/2016	10:54	-26.18	8/30/2016	10:59	-5.43	×		
									,						
Relingu	Relinquished by: (Signature)	Jan			Received by: (S	Received by: (Signature/Affiliation)	Miation)	Dell	esh	4	Date:	e: 1/2//2		Time:  2 46	ige i
Refinqui	Relinquished by: (Signature)	she che			Received by:	Received by: (Signature/Affiliation)	Filiation) 74 MMG	1/6	222/		Date:	112/1	6	ime: 1623	30 g
Relinqui	Relinquished by (Signature)				Received by:	Received by: (Signature/Affiliation)	(liation)				bate		}	Time:	
					.,,,,		4							06/02/1	06/02/14 Revision

WORK ORDER NUMBER: 16-09-WORK ORDER NUMBER: 16-09- 0766

Calscience SAMPLE RECEIPT CHECKLIST COOLER 0 OF 0

DATE: 09 /	12	/ 2016
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SAMPLE RECEIPT CHECKLIST	C	OOLER		OF
CLIENT: Geosyntec Consultants	DA	ΓE: <b>09</b>	1 <u>[2</u>	/ 2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF):°C (w/ CF):  Sample(s) outside temperature criteria (PM/APM contacted by:)  Sample(s) outside temperature criteria but received on ice/chilled on same day of same		⊒ Blank	□ San	nple
☐ Sample(s) outside temperature criteria but received on ice for transport by courier  Ambient Temperature: ☐ Air ☐ Filter		Check	ed by: _	659
[ 505:5:	YN/A ] N/A			619 826
SAMPLE CONDITION:		Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete				
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers ☐ No analysis requested ☐ Not relinquished ☐ No relinquished ☐ No relinquished	shed time	_		
Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition		A		_ _ _
Proper containers for analyses requested				. 🗖
Sufficient volume/mass for analyses requested				
Samples received within holding time  Aqueous samples for certain analyses received within 15-minute holding time				
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen				Ø
Proper preservation chemical(s) noted on COC and/or sample container				Ø
Container(s) for certain analysis free of headspace  Use Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)				b
□ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)  Tedlar™ bag(s) free of condensation	ı	. 🗆		ø
CONTAINER TYPE: (Trip Blank L	ot Numb	er:		)
Aqueous:       □ VOA       □ VOAh       □ VOAna₂       □ 100PJ       □ 100PJna₂       □ 125AGB       □ 125AGBh         □ 125PBznna       □ 250AGB       □ 250CGB       □ 250CGBs       □ 250PB       □ 250PBn       □ 500AGB         □ 500PB       □ 1AGB       □ 1AGBna₂       □ 1AGBs       □ 1PBna       □       □         Solid:       □ 4ozCGJ       □ 8ozCGJ       □ 16ozCGJ       □ Sleeve       □       □ EnCores®       □       □       □	□ 500AG、 _ □ rraCores <sup>®</sup>	500 [ )	)AGJ <b>s</b> ]	
Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ Other Matrix (				
Container: $A = Amber$ , $B = Bottle$ , $C = Clear$ , $E = Envelope$ , $G = Glass$ , $J = Jar$ , $P = Plastic$ , and $Z = Preservative$ : $b = buffered$ , $f = filtered$ , $h = HCl$ , $n = HNO_3$ , $na = NaOH$ , $na_2 = Na_2S_2O_3$ , $p = H_3PO_4$ , $s = H_2SO_4$ , $u = ultra-pure$ , $znna = Zn (CH_3CO_2)_2 + NaOH$	Ziploc/Res	sealable l d/Check Review	sag ked by: <sub>-</sub> ved by: <sub>-</sub>	300

# APPENDIX H DATA VALIDATION SUMMARY

#### Crystal Geyser Stage 2A Data Validation Summary

#### 10/13/16

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Reports 16-08-1807, Supplemental Report 1, 16-09-0004, 16-09-0242, 16-09-0110, 16-09-0112, 16-09-0478, 16-09-0590, 16-09-0591 and 16-10-0502

Water samples associated with the laboratory reports referenced above were analyzed for volatile organic compounds (VOCs) by EPA methods 5030C/8260B, semivolatile organic compounds (SVOCs) by EPA methods 3510C/8270C, calcium, magnesium and sodium by EPA method 200.7, total and dissolved metals (including mercury) by EPA methods 3020A/3005A/6020 and 7470A, total alkalinity and bicarbonate alkalinity as CaCO<sub>3</sub> by Standard Method 2320B, ammonia nitrogen by Standard Method 4500-NH3 B/C, nitrate-nitrite as N by Standard Method 4500-NO3 E, anions (chloride and sulfate) by EPA method 300.0, total phosphorus by Standard Method 4500 B/E, total phosphate by Standard Method 4500 B/E, total kjeldahl nitrogen (TKN) by Standard Method 4500-N Org B, total nitrogen by calculation, total dissolved solids (TDS) by Standard Method 2540 C and surfactants (methylene blue active substances, MBAS) by Standard Method 5540C.

Solid samples in laboratory report 16-08-1807, Supplemental Report 1 were analyzed for total and dissolved California (CA) Title-22 metals (CAM-17) metals by EPA methods 3050B/6010B and 7471A, SVOCs by EPA methods 3545/8270C and VOCs by EPA methods 5030C/8260B.

The samples were analyzed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level, based on the USEPA National Functional Guidelines for Superfund Organic Methods Data Review, August 2014 (EPA 540-R-014-002), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, August 2014 (EPA 540-R-013-001), as well as by the pertinent methods referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives, with the following exceptions.

The nondetect results of VOCs in samples SS-01-160823 and SS-02-160823 are R qualified as rejected, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours.

Due to matrix spike/matrix spike duplicate (MS/MSD) recoveries less than 20%, the nondetect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected.

The remaining qualified data should be used within the limitations of the qualifications.

The chain of custody (COC) forms in the reports did not list total nitrogen; however, this analysis was reported.

The COCs in reports 16-09-0478, 16-09-0590 and 16-09-0591 did not list collection times for the trip blanks. The laboratory assigned collection times of 00:00 to these trip blanks.

The COC in report 16-08-1807, Supplemental Report 1 listed only metals analyses for the solid samples. Additional analyses (VOCs and SVOCs) were reported for the solid samples, based on email communications from the client included in the laboratory report.

There were two copies of the COCs in reports 16-09-0004 and 16-09-0478. The second copy in report7s 16-09-0004 was corrected to remove 'lab-filtered' from the total metals request for analysis. The second copy in report 16-09-0478 was unreadable.

The Calscience sample receipt checklist in report 16-09-0004 indicated that the aliquots for total metals for samples MW-14-W-18.5-160830 and MW-15-W-24-160830 were received unpreserved. Additional information from the laboratory indicated that acid was added to these two samples and they were digested more than 24 hours after the acid addition. The pH of these two samples at digestion were <2. No qualifications were applied to the data.

The Calscience sample anomaly form in report 16-09-0110 indicated that the 1-liter SVOC bottle for sample MW-03-090116 was received broken; therefore, SVOCs were not reported for this sample. In addition, broken bottles were received for samples MW-15-090116 (total phosphate) and QCTB-090116-2 (VOCs). Additional bottles were available for these two samples and the results were reported. In addition, the COC did not indicate total phosphate analysis of sample MW-03-090116. An email from the client requesting total phosphate analysis of this sample was included in the laboratory report.

The Calscience sample anomaly form in report 16-09-0478 indicated that an equipment blank was collected with the samples, but not listed on the COC, QCEB-02-090616. The equipment blank was analyzed for the full suite of water analyses.

The Calscience sample anomaly form in report 16-09-0590 indicated that one vial of sample MW-11-090816 was received broken. Sufficient volume for this sample was available for the analyses requested.

Incorrect error corrections were performed on the COCs in reports 16-08-1807, Supplemental Report 1 and 16-09-0110, instead of single line through, initialing and dating the corrections.

The samples were prepared and analyzed within the method specified holding times, with the following exceptions.

The VOCs soil analyses for the samples in report 16-08-1807, Supplemental Report 1, were requested and prepared six days after sample collection. Therefore, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours, the nondetect results of VOCs in samples SS-01-160823 and SS-02-160823 were R qualified as rejected.

The MBAS analyses of samples MW-09-090716 and MW-13-090716 were performed several hours outside the 48-hour holding time. Therefore, based on professional and technical judgment, the

nondetect results of MBAS in these two samples were UJ qualified as estimated less than the reporting limit (RL).

The results for the laboratory method blanks, equipment blanks, trip blanks, laboratory control samples (LCSs), LCS/LCS duplicate (LCSD) pairs, MS/MSD pairs, laboratory duplicates and surrogates were within the laboratory specified acceptance criteria, with the following exceptions.

An MS/MSD was reported for mercury using sample B-02-W-15.5-160823-DUP. The relative percent difference (RPD) result was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of mercury in sample B-02-W-15.5-160823-DUP was J qualified as estimated.

An MS/MSD was reported for VOCS using sample SS-02-160823. One or both of the recoveries of the following compounds were low and outside the laboratory specified acceptance criteria: Bromobenzene, n-butylbenzene, 4-chlorotoluene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, naphthalene, 1,2,3-trichlorobenzene and 1,2,4-trichlorobenzene. Therefore, the nondetect results of these compounds in sample SS-02-160823 were UJ qualified as estimated less than the RLs. The MS/MSD recoveries of vinyl acetate were 7% and 1%, both outside the laboratory specified acceptance criteria and less than 20%. Therefore, the nondetect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected. The MSD recovery and RPD of acetone were high and outside the laboratory specified acceptance criteria. Since acetone was not detected in sample SS-02-160823, no qualifications were applied to the data.

The LCS recovery of vinyl acetate in batch 160830L005 was low and outside the laboratory specified acceptance criteria. Therefore, the nondetect results of vinyl acetate in the associated samples were UJ qualified as estimated less than the RLs.

An MS/MSD was reported for chloride and sulfate using sample MW-03-090116. The chloride recoveries were low and outside the laboratory specified acceptance criteria. Therefore, based on professional and technical judgment, the concentration of chloride in this sample was J- qualified as estimated with a low bias.

The LCS/LCSD recoveries of 3,3-dichlorobenzidine in batches 160909L01 and 160912L01 were high and outside the laboratory specified acceptance criteria. Since this compound was not detected in the associated samples, no qualifications were applied to the data.

An MS/MSD was reported for chloride and sulfate using sample MW-09-090716. The sulfate recoveries were high and outside the laboratory specified acceptance criteria. Therefore, based on professional and technical judgment, the concentration of sulfate in this sample was J+ qualified as estimated with a high bias.

The LCS recovery of bromoform was low and outside the laboratory specified acceptance criteria in batch 160910L024. Therefore, based on professional and technical judgment, the nondetect results of bromoform in the associated samples were UJ qualified as estimated less than the RL.

The LCS recovery of vinyl acetate was low and outside the laboratory specified acceptance criteria in batch 160909L045. Therefore, based on professional and technical judgment, the nondetect results of vinyl acetate in the associated samples were UJ qualified as estimated less than the RL.

The LCS recovery of pyridine was low and outside the laboratory specified acceptance criteria in batch 161007L11A. Therefore, based on professional and technical judgment, the nondetect result of pyridine in the associated sample was UJ qualified as estimated less than the RL.

LCSs were not analyzed with the TKN data. Therefore, based on professional and technical judgment and no accuracy data, the concentrations of TKN in the samples were J qualified as estimated and the nondetect results were UJ qualified as estimated less than the RL.

An equipment blank was collected on 9/6/16 and reported in lab report 16-09-0478. Sodium was detected at a concentration greater than the RL, 0.882 mg/L. Since the sodium concentrations in the associated samples were greater than ten times the equipment blank concentration, no qualifications were applied to the sodium data.

An equipment blank was collected on 9/7/16 and reported in lab report 16-09-0590. Calcium and magnesium were detected at concentrations greater than the RLs, 2.35 mg/L and 0.224 mg/L, respectively. Therefore, the concentrations of calcium and magnesium in the associated samples greater than the equipment blank concentrations and less than ten times the equipment blank concentrations were J+ qualified as estimated with high biases; the concentrations of calcium in the associated samples greater than the RL and less than the equipment blank concentration were U qualified as not detected at the reported concentrations.

It was noted that equipment blanks were not collected with the samples in reports 16-08-1807, Supplemental Report 1 and 16-09-0004.

The total metals concentrations were greater than the dissolved metals concentrations, with the following exceptions.

Dissolved antimony was detected in samples MW-15-W-24-160830, MW-12-W-11.5-160829 and MW-12-W-8-160829 and total antimony was not detected. Dissolved vanadium and zinc were detected in sample MW-14-W-18.5-160830 and total vanadium and zinc were not detected. The laboratory noted that the total metals analyses were reported from 1:10 dilutions of these samples due to matrix interferences; the dissolved metals analyses were reported from undiluted samples. Therefore, the nondetect total antimony, vanadium and zinc results in the samples were elevated due to dilutions to concentrations greater than the dissolved metals concentrations. No qualifications were applied to the data, based on professional and technical judgment.

Dissolved antimony was detected sample MW-15-W-14-160830 and total antimony was not detected. Therefore, based on professional and technical judgment, the concentration of dissolved antimony was J qualified as estimated and the nondetect result of total antimony was UJ qualified as estimated less than the RL in sample MW-15-W-14-160830.

The total molybdenum concentration in sample MW-14-W-18.5-160830 was less than the dissolved molybdenum concentration. Therefore, due to an RPD >30% and professional and technical judgment, the total and dissolved molybdenum concentrations in sample MW-14-W-18.5-160830 were J qualified as estimated.

The total zinc concentration in sample MW-03-090116 was less than the dissolved zinc concentrations. No qualifications were applied to the data, since the RPD between the results was less than 30%.

The total antimony, arsenic and molybdenum concentrations in samples MW-04-090816 and MW-04-090816-DUP were less than the dissolved antimony, arsenic and molybdenum concentrations. The total arsenic, molybdenum and vanadium concentrations in sample MW-05-090816 were less than the dissolved arsenic, molybdenum and vanadium concentrations. The total arsenic concentration in sample MW-08-090716 was less than the dissolved arsenic concentration. The total arsenic, molybdenum, nickel and vanadium concentrations in sample MW-13-090716 were less than the dissolved arsenic, molybdenum, nickel and vanadium concentrations. No qualifications were applied to the data for these samples, since the RPDs between the results were less than 30%.

The total arsenic, barium, molybdenum and zinc concentrations in sample MW-10-20161006 were less than the dissolved arsenic, barium, molybdenum and zinc concentrations. No qualifications were applied to the data for this sample, since the RPDs between the results were less than 30%.

Three field duplicates, B-02-W-15.5-160823-DUP, MW-04-090816-DUP and OW-8US-090616-DUP, were collected with the samples in reports 16-08-1807, Supplemental Report 1, 16-09-0590 and 16-09-0478. Acceptable precision (relative percent difference, RPD ≤30%) was demonstrated between the field duplicates and the original samples, B-02-W-15.5-160823, MW-04-090816 and OW-8US-090616-DUP, respectively, with the following exceptions.

The RPDs for dissolved antimony, vanadium and zinc in field duplicate pair B-02-W-15.5-160823/B-02-W-15.5-160823-DUP were greater than 30%. Therefore, based on professional and technical judgment, the concentrations of dissolved antimony, vanadium and zinc in this field duplicate pair were J qualified as estimated.

Dissolved zinc was detected in the original sample but not in the field duplicate in field duplicate pair MW-04-090816/MW-04-090816-DUP, resulting in a non-calculable RPD between the results. Therefore, based on professional and technical judgment, the concentration of dissolved zinc was J qualified as estimated and the non-detect result was UJ qualified as estimated less than the RL in the field duplicate pair.

Dissolved selenium was detected in the field duplicate but not in the original sample in field duplicate pair OW-8US-090616/OW-8US-090616-DUP, resulting in a non-calculable RPD between the results. Therefore, based on professional and technical judgment, the concentration of dissolved selenium was J qualified as estimated and the non-detect result was UJ qualified as estimated less than the RL in the field duplicate pair.

Respectfully	y submitted b	v: Reviewed	b١	۷:

Mary Tyler Geosyntec Consultants 10/13/16 Julia K. Caprio Geosyntec Consultants 10/14/16

## ATTACHMENT 1 DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY Assigned by Geosyntec's Data Validation Team

#### **DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

## ATTACHMENT 2 DATA VALIDATION REASON CODES Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference

QC-Quality Control

Crystal Geyser
Stage 2A Data Validation Summary

10/3/16

Summary of the Stage 2A Data Validation of BC Laboratories Work Orders 1624332, 1624806, 1625015 and 1625972

The water samples were analyzed for total coliform and fecal coliform by Standard Methods 9221B and 9221E by BC Laboratories, Inc., Bakersfield, California.

The data were validated at an EPA Stage 2A data validation level. The data were reviewed based on USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, August 2014 (EPA 540-R-013-001), as well as by the pertinent method referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The chain of custody (COC) forms were not included in the laboratory reports; copies of the COCs sent to the laboratory were sent by the client to the data validator.

The samples were analyzed within the 24-hour holding time specified by the method for non-potable water for non-compliance purposes.

The positive and negative control results were not included in the laboratory reports; they were sent by the client to the data validator. The results were within the laboratory specified acceptance criteria.

Two field duplicate samples, OW-8US-090716-DUP and MW-04-090816-DUP, were collected with the samples in reports 1624806 and 1625015, respectively. Acceptable precision (relative percent difference, RPD  $\leq$ 30%) was demonstrated between the field duplicates and the original samples, OW-8US-090716 and MW-04-090816, respectively. The RPDs between the results were 0%.

Respectfully submitted by: Reviewed by:

Mary Tyler Julia K. Caprio

Geosyntec Consultants Geosyntec Consultants

10/3/16 10/14/16

Crystal Geyser
Stage 2A Data Validation Summary

10/3/16

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Report 16-09-0766

Air samples associated with the laboratory report referenced above were analyzed for volatile organic compounds (VOCs) by EPA method TO-15. The samples were analyzed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level and were reviewed based on the USEPA National Functional Guidelines for Superfund Organic Methods Data Review, August 2014 (EPA 540-R-014-002), as well as by the pertinent method referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

The samples were analyzed within the method specified holding time.

The results for the laboratory method blanks, laboratory control samples/laboratory control sample duplicate (LCS/LCSD) pairs and surrogates were within the laboratory specified acceptance criteria.

A field duplicate sample, SV-01-5-083016-DUP, was collected. Acceptable precision (relative percent difference, RPD  $\leq$ 30%) was demonstrated between the field duplicate and the original sample, SV-01-5-083016, with the following exceptions.

The RPD for acetone was >30%. Therefore, based on professional and technical judgment, the concentrations of acetone in the field duplicate pair were J qualified as estimated. In addition, 2-butanone, trichloroethene and vinyl acetate were detected in one sample, but not in the other in the field duplicate pair, resulting in noncalculable RPDs between the results. Therefore, based on professional and technical judgment, the concentrations of these compounds were J qualified as estimated and the non-detect results were UJ qualified as estimated less than the RLs.

Respectfully submitted by: Reviewed by:

Mary Tyler Julia Caprio

Geosyntec Consultants Geosyntec Consultants

10/3/16 10/12/16

## ATTACHMENT 1 DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY Assigned by Geosyntec's Data Validation Team

#### **DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

## ATTACHMENT 2 DATA VALIDATION REASON CODES Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference

QC-Quality Control