

HEARING OFFICER'S REPORT

TO: The Honorable Shawn M. Garvin
Cabinet Secretary, Department of Natural Resources and Environmental Control

FROM: Lisa A. Vest *LV*
Public Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Permit Application of Sargio Corporation to conduct mechanical maintenance dredging of approximately 3,500 cubic yards of sediment from Bay Vista Marina, and to dispose such sediment material on an adjacent upland lot located in Rehoboth Beach, Sussex County, Delaware, thus necessitating Applicant to obtain a Subaqueous Lands Permit and Water Quality Certification.

DATE: October 18, 2019

I. BACKGROUND AND PROCEDURAL HISTORY:

A public hearing was held on Thursday, March 14, 2019, at 6:00 p.m. by the Department of Natural Resources and Environmental Control ("DNREC," "Department") at the DNREC Shoreline and Waterway Management office located at 901 Pilottown Road, Lewes, Delaware, to receive comment on the permit application of Sargio Corporation ("Applicant") to obtain a Subaqueous Lands Permit and Water Quality Certification. The Applicant seeks permission to conduct mechanical maintenance dredging of approximately 3,500 cubic yards of sediment from Bay Vista Marina, to a depth of four (4) feet below the Mean Low Water ("MLW") in the marina basin, and to a depth of six (6) feet below MLW in the marina access channel. Bay Vista Marina is adjacent to the Lewes and Rehoboth Canal, near the east terminus of Basin Street, Rehoboth Beach, Sussex County, Delaware. The dredged material will then be disposed of via excavator and water-tight dump trucks at an adjacent upland parcel (also owned by the Applicant) located near the east terminus of First Street, Rehoboth Beach, Sussex County, Delaware ("proposed project").

The Applicant's proposed project is subject to the requirements of Delaware's *Subaqueous Lands Act* (7 Del.C. Chapter 72), the Department's *Regulations Governing the Use of Subaqueous Lands* (7 DE Admin. Code 7504), the *Regulations Governing the Control of Water Pollution* (7 DE Admin. Code 7201), Section 401 of the federal *Clean Water Act*, 33 U.S.C. 1341, and 7 Del.C. Chapter 60.

On August 20, 2018, the Department's Division of Water, Wetlands and Subaqueous Lands Section ("WSLS"), received a permit application from Coastal and Estuarine Research, Inc., submitted on behalf of Sargio Corporation, seeking permission to conduct the above described dredging activity. The permit application was then advertised for a 20-day public notice period, beginning on September 19, 2018. During that time, the WSLS received several written comments in favor of the proposed project, and one comment from Henry Shaubach, who voiced opposition to the project. Mr. Shaubach claimed that the proposed project lacked engineered site plans, sediment and stormwater management plans, and contained no testing of water and dredge spoils for pollutants. Additionally, Mr. Shaubach expressed concerns regarding previous land use changes in the area, which he alleged had increased water ponding near the end of First Street in Rehoboth Beach, Delaware.

Due to the fact that the Department received only one comment in opposition to the proposed project, the Department's WSLS staff offered to meet with Mr. Shaubach to see whether his concerns regarding this proposed dredging project could be successfully addressed without the need for a public hearing. Thus, on October 3, 2018, Mr. and Mrs. Shaubach met with WSLS staff to discuss this matter in greater detail.

At the aforementioned meeting with Mr. Shaubach, the Department explained that the WSLs does not have jurisdiction over previous land use changes at the end of his street, nor could WSLs control the drainage issues associated with the same. Additionally, WSLs staff explained that the Applicant's proposed project is a typical dredging project that routinely occurs in southern Delaware, and that, due to the lack of heavy industry in the area, the Department does not typically require such applicants to submit documentation verifying that the dredging materials are not toxic. Since Mr. Shaubach's concerns about this proposed project continued to persist, an on-site meeting at Bay Vista Marina was then scheduled between the Applicant and Mr. Shaubach to take place on October 25, 2018.

It should be noted that, prior to the October 25, 2018 meeting between the Applicant and Mr. Shaubach, Hydrologist Amber Bataille from the Department's Division of Water (Groundwater Protection Branch) also conducted a review of the Applicant's proposed project. Ms. Bataille's review determined that a public groundwater withdrawal well was located near the project area. The review further revealed that part of the Applicant's proposed dredge disposal area was located within a Wellhead Protection Area ("WHPA"). The Applicant was informed of this review and its findings and, as a result, the westernmost proposed dredge spoil cell of the proposed project was abandoned by Sargio Corporation, per WSLs requirements.

On October 25, 2018, members of the Shaubach family, owners of the Sargio Corporation, Evelyn Maurmeyer (Applicant's consultant), and George Appel (Applicant's contractor) all walked the proposed boundaries of the dredge disposal site as Mr. Shaubach expressed his concerns about the proximity of the site to his property. At that time, boundary flags were placed to identify the mutually agreed upon limits of the dredge disposal site, and marked with GPS points (to 50 centimeters' accuracy) to ensure such boundary data was accurately recorded. Those boundary points were later surveyed by Triangle Surveyors, and the points were confirmed to match up with the Department's WSLS data. In addition to the disposal area being mapped, it was agreed upon that the Applicant would obtain an approved Sussex Conservation District Erosion and Stormwater ("E&S") Management Plan, along with a chemical analysis of the dredge sediments (compiled from five random grab samples throughout the marina basin) to confirm that no contaminants of public health concern are present.

In addition to the above accommodations, the Applicant further agreed to remove some of the road gravel that Mr. Shaubach believed contributed to the flooding of his property, and to install a swale, if needed, to remove water. It should also be noted, however, that Mr. Shaubach was informed by Department staff that DNREC could not enforce the agreement between the parties with regard to above matters, as the same were outside of the Department's WSLS jurisdiction.

On October 25, 2018, per the agreement previously noted above, the Applicant removed the gravel fill from the road surface, and brought the area back to its original elevation (which was subsequently confirmed in the field by WSLS Environmental Scientist George Geatz). During this time, Mr. Shaubach expressed concern that the excavation equipment had cut a coaxial cable line, which was confirmed. Comcast was contacted to resolve that issue.

The Applicant's approved Sussex County E&S Management Plan, along with the analytical laboratory results of the dredge sediments, were both received by the Department on January 3, 2019. The data received from Envirocorp Labs (specifically, the chemical analyses of the dredge sediment provided by Seewald Laboratories, Inc.) did not indicate the presence of any harmful pollutants in significant quantities. Additional review of this data from DNREC Hydrologist John Cargill provided further confirmation of this finding.

On January 8, 2019, Mr. Shaubach was emailed his requested items (which included two maps of the final dredge disposal location, the approved Sussex Conservation District E&S Management Plan, and the laboratory chemical analysis of the lagoon sediment), and was given until January 14, 2019 to review these documents. When contacted at that time by WSLS staff (Mr. Geatz and Tyler Brown, Program Manager), Mr. Shaubach was still unsatisfied with the items provided, and requested additional information. At that time, Mr. Shaubach was informed by the Department that the Sargio Corporation had gone above and beyond what they were asked to do, and had modified the project based off his concerns. Mr. Shaubach was given until January 18, 2019 to determine whether he wished to move forward with a public hearing.

On January 18, 2019, Mr. Shaubach contacted the WSLs staff and advised that he had visited the proposed dredge disposal site the day before, and now believed that the flagging denoting the boundary of the site had been altered and moved closer to his property boundaries. Mr. Shaubach then requested to move forward with a public hearing, as previously requested.

Based upon Mr. Shaubach's continued objections to this proposed project, the Department's WSLs staff determined that it was necessary to schedule a public hearing concerning this matter. Accordingly, notice for the public hearing was published by the Department on February 20, 2019. Upon this matter being noticed for a public hearing, numerous letters voicing support for this proposed project were once again received by the Department. The only objector to this pending permit application remained Mr. Shaubach, who had at this point retained the services of David Hutt, Esquire, to represent his interests in this matter.

The Department held the public hearing concerning this matter on March 14, 2019, which was attended by the Department's WSLs staff, representatives of the Applicant (owner John Candeloro, Evelyn Maurmeyer of Coastal and Estuarine Research, Inc., and Applicant's counsel, Hal Dukes, Esquire), and individuals from the public. Comment was received from the public at that hearing, and will be discussed in further detail below. Proper notice of the hearing was provided as required by law.

II. SUMMARY OF THE PUBLIC HEARING RECORD:

The public hearing record (“Record”) consists of the following documents: (1) a verbatim transcript; (2) twelve documents introduced by Department staff at the public hearing held on March 14, 2019, and marked accordingly by Hearing Officer Bethany Fiske as “DNREC Exhibits 1-12”; (3) three documents introduced by the Applicant at the aforementioned hearing and marked accordingly by Hearing Officer Fiske as “Applicant Exhibits 1-3”; (4) documentation (e.g., PowerPoint presentation offered on behalf of Mr. Shaubach by Mr. Hutt at the hearing and marked accordingly by Hearing Officer Bethany Fiske as “Hutt Exhibit 1”; and (5) Technical Response Memorandum from George Geatz, Environmental Scientist, WSLs, dated July 19, 2019. The Department’s persons primarily responsible for reviewing this application, George Geatz, along with Tyler Brown, developed the Record with the relevant documents in the Department’s files.

Following opening remarks from Hearing Officer Fiske, Mr. Geatz offered a brief presentation for the benefit of the Record, which provided the background information surrounding this proposed project (i.e., from the Department’s receipt of Sargio Corporation’s permit application through the holding of various meetings with Mr. Shaubach to address his concerns, as noted above). Mr. Geatz also included a recounting of the numerous attempts to address Mr. Shaubach’s concerns with the project, and discussed why a public hearing was deemed necessary by the Department in this matter.

Subsequent to the Department's presentation, Mr. Dukes proceeded to offer a brief presentation on behalf of the Applicant. Mr. Dukes explained that maintaining a viable marina increases property values within the Bay Vista community, in addition to providing the community with a recreational facility. Additional statements supporting this project were offered at the time of the hearing as well, including comments from John Candeloro and Evelyn Maurmeyer.

Mr. Candeloro summarized the numerous attempts made by the Applicant to satisfy the lone objector to the project (Mr. Shaubach), and characterized the proposed dredge disposal lot as an approved, single-family home building lot that Sargio Corporation could raise above the 100 year flood plain and "...put a house on this lot tomorrow if we wanted to." Ms. Maurmeyer offered that she has 38 years of experience in permitting with Sussex County, as well as both a Master's and a Doctorate in Coastal Geology from the University of Delaware, and it is her opinion that the Applicant has gone above and beyond the requirements of a normal dredging project (specifically, with regard to the chemical analysis of the material to be excavated) in an attempt to satisfy Mr. Shaubach's concerns with regard to this proposed project. She further stated that, should the proposed dredging not be done, sedimentation will continue in the marina, and eventually the marina will become "...unusable by the many people who rely on that marina as a location to moor their vessels and to enjoy the natural beauty of the surrounding waterways and environment here in Sussex County."

Speaking on behalf of Mr. Shaubach, David Hutt, Esquire, offered both an official letter and a PowerPoint presentation for submission into the Record at the time of the March 14, 2019 public hearing. In objection of the Applicant's proposed project. Mr. Hutt noted that there are several brownfield sites located close to the dredging area, which he presumes indicates a high probability of contaminated sediments in the vicinity of Bay Vista Marina. He also alleged that Sargio Corporation did not do any chemical testing of the material to be dredged, and that the grab sampling that was performed was insufficient to properly characterize the sediment present.

Additionally, Mr. Hutt alleged that the potential effects on the Shaubach's groundwater well quality had not been considered. Mr. Hutt noted that, while many residents in Bay Vista do not have individual wells on their properties, the Shaubachs do have an individual well (which is still the source of their water), and that the project had not been sufficiently examined in light of the Department's Regulations governing such matters. Lastly, Mr. Hutt claimed that stormwater drainage from the Shaubach property will be affected by the installation of the berm that will contain the dredge spoil material.

After Mr. Hutt's presentation had concluded, the floor was then opened for the purpose of offering public comment on the Record regarding this proposed project. Eleven members of the public spoke in favor of the proposed dredging of Bay Vista Marina. All of those comments came from slip holders who were unable to ingress and egress at the majority of the tidal cycle. Additional comments received from the public included that the silted-in marina presented a safety hazard for the community. A local realtor also offered a statement that the access to a viable marina was a major enhancer of property values in the area.

Subsequent to the public hearing held in this matter, Hearing Officer Fiske requested a Technical Response Memorandum (“TRM”) from the technical experts in the Department’s Division of Water. Specifically, this TRM was asked to (1) address the concerns voiced by the public at the time of the public hearing; (2) provide a formal regulatory review of the Applicant’s proposed dredging project; and (3) offer the Division of Water’s conclusions and recommendations with regard to the Applicant’s pending permit application for the benefit of the Record generated in this matter.

I find that the Division of Water’s TRM (which contains the dredge sediment chemical analyses provided by Seewald Laboratories, Inc. referenced above) offers a detailed regulatory review of all aspects of the Applicant’s proposed marina project, identifies all of the concerns raised at the public hearing of March 14, 2019, and responds to them in a balanced manner, accurately reflecting the information contained in the Record. Thus, the aforementioned TRM is attached hereto as Appendix “A” and expressly incorporated herein as such.

III. RECOMMENDED FINDINGS AND CONCLUSIONS:

The Applicant seeks permission to conduct mechanical maintenance dredging activity at Bay Vista Marina, specifically, to dredge 3,500 cubic yards of sediment, and to dispose the dredged material on an adjacent upland parcel, owned by the Applicant, located near the east terminus of First Street, Rehoboth Beach, Sussex County, Delaware.

Preliminarily, I find that the proposed project will require the Applicant to obtain a Subaqueous Lands Permit and a Water Quality Certification from the Department's WSLS. I further find that the Applicant's proposed project is subject to the following federal and state statutory and regulatory requirements:

- Delaware's *Subaqueous Lands Act* (7 Del.C. Chapter 72);
- The Department's *Regulations Governing the Control of Water Pollution* (7 DE Admin. Code 7201)
- The Department's *Regulations Governing the Use of Subaqueous Lands* (7 DE Admin. Code 7504);
- Section 401 of the federal *Clean Water Act*, 33 U.S.C. 1341; and
- 7 Del.C. Chapter 60.

The Record reflects that, at the time of public hearing on March 14, 2019, eleven members of the public spoke in favor of the proposed dredging of Bay Vista Marina. All of those comments came from slip holders who were unable to ingress and egress at the majority of the tidal cycle. Additional comments received from the public included that the silted-in marina presented a safety hazard for the community. A local realtor also offered a statement that the access to a viable marina was a major enhancer of property values in the area.

The Record also reflects that, over the course of several months subsequent to the Department having placed this permit application on public notice, meetings were held between the Applicant and Mr. Shaubach, during which time numerous concerns were addressed. Mr. Shaubach believes the previous installation of the spoil disposal site backed water onto his property, however, it is the opinion of the Department's WSLs staff that there is little evidence to support this claim. According to the Department's TRM, the area of concern is all low relief coastal plain material, and, due to the location of the property (at the end of First Street in Rehoboth Beach, nearest to the marina and wetlands), it can be assumed that water naturally drained in this direction before the installation of a berm. Furthermore, in this instance, drainage issues are not within the jurisdiction of the Department, as the Applicant has already received an approved Sussex Conservation District E&S Management Plan. Nevertheless, the Applicant has agreed to install a drainage swale near the new disposal site. As noted previously herein, DNREC cannot mandate the Applicant make such an agreement, as the same is beyond the jurisdiction of the Department.

With regard to the sediment contamination concerns voiced by Mr. Shaubach's attorney, Mr. Hutt, at the time of the hearing, the Department's TRM notes that chemical testing of the dredge sediment did not identify significant levels of any pollutant known to contaminate wells or to pose a significant human health hazard. Additionally, the Department's TRM notes there is a very low likelihood of any well water contamination (including the introduction of salts) to Mr. Shaubach's well, as the general groundwater flow pattern from the disposal site does not intersect his property.

Furthermore, the Applicant has already gone through the process of obtaining an approved Sussex County Conservation District E&S Management Plan, an action that is typically done only after an applicant has received the necessary permits for such a project.

The Department notes in its TRM that tracking the dredged material offsite would require at least three hundred and fifty (350) water-tight dump trucks, costing additional tens of thousands of dollars. This option would significantly increase the cost of this dredging project, and, ultimately, would not allow it to occur. Storing the material on-site, in a cell that has been previously used for spoil material, is the most environmentally conscious and financially feasible way to accomplish this dredging project, as it will (1) allow minimal transport of the material along roadways; (2) allow the material to dewater nearest to the source; and (3) generally minimize potential environmental impacts. The Record further reflects that the Applicant has stated the funding for this dredging event will “far exceed” the amount that the marina brings in on a yearly basis, and that the cost for this proposed project has already become a burden.

In order to address the concerns voiced by the Shaubach family, the Department’s WSLS has included numerous special conditions in the draft Subaqueous Lands Permit and Water Quality Certification, including, but not limited to, the following:

Due to dredge disposal site concerns addressed during the public process, the DNREC WSLS Department shall be contacted 48 hours prior to the commencement of the dredging and prior to site preparation at the disposal location.

The above special condition will allow the Department's scientists to verify the boundary locations of the dredge containment area, and to ensure that approved construction plans have been adhered to prior to the commencement of any and all dredging activities associated with this project.

The State of Delaware is charged with upholding the Public Trust Doctrine, which has been used historically in protecting the public's rights to fishing, commerce, navigation, recreation and even preservation as an appropriate public use. The Department recognizes that there are concerns associated with this project, as voiced by Mr. Shaubach, but those concerns have been balanced. As set forth in the Department's TRM, there is agreement among all parties involved that the Bay Vista Marina has become silted in, and needs to be dredged. In reviewing the applicable statutes and regulations, as well as weighing public benefits of this project against potential detriments, the Department's experts in the Division of Water have concluded that the aforementioned proposed mechanical maintenance dredging and sediment disposal activity, as described in the Application of Sargio Corporation, complies with the applicable Regulations administered by the WSLs.

The Record developed in this matter indicates that the Department's experts have considered all statutes and regulations that govern projects such as the Applicant's proposed project, and have recommended issuance of all permits necessary for completion of the same. I find and conclude that the Applicant has adequately demonstrated its compliance with all requirements of the statutes and regulations as noted herein, and that the Record supports approval of the permit application submitted by Sargio Corporation.

In conclusion, I recommend that all permits required for this proposed project, consistent with the Record developed in this matter, be issued by the Department in the customary form, and with appropriate conditions.

Further, I recommend the Secretary adopt the following findings and conclusions:

1. The Department has jurisdiction under 7 *Del. C.* §§6003, 6004, 6006(4), and all other relevant statutory authority, to make a final determination on the Applicant's permit application after holding a public hearing, considering the public comments, and all information contained in the Record generated in this matter;
2. The Department provided proper public notices of the permit application of Sargio Corporation, and of the public hearing held on March 14, 2019, and held said hearing to consider any public comment that may be offered on the same, in a manner required by the law and regulations;
3. The Department considered all timely and relevant public comments in the Record, as established in the Department's above referenced TRM;
4. The Department has carefully considered the factors required to be weighed in issuing all permits required of this proposed marina project, and finds that the Record supports approval of the Applicant's permit application, and the issuance of all required permits associated with same;

5. The Department shall issue to the Applicant both a Subaqueous Lands Permit and Water Quality Certification. Furthermore, said permits shall include all special conditions as set forth in the Department's draft permits, to ensure that Delaware's environment and public health will be protected from harm;
6. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary; and
7. The Department shall serve and publish its Order on its internet site, and shall provide legal notice of the Order in the same manner that the Department provided legal notice of the Application.



LISA A. VEST
Public Hearing Officer

\\ahcar\Sargio Corp. Bay Vista Dredging Permits 2019

Attachments/Appendix:

Appendix A: Division of Water TRM (07/19/19) w/Envirocorp Lab Analyses attached

APPENDIX "A"



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
89 KINGS HIGHWAY
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WETLANDS & SUBAQUEOUS
LANDS SECTION

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Technical Response Memorandum

To: Lisa A. Vest, Hearing Officer

Through: Virgil Holmes, Director, Division of Water *VH 7/30/19*
Tyler Brown, Program Manager, Wetlands and Subaqueous Lands Section *TB*

From: George Geatz, Environmental Scientist, Wetlands and Subaqueous Lands Section *GG*

Date: July 19, 2019

Subject: Sargio Corporation, Bay Vista Marina Dredging Project, Subaqueous Lands Permit and Water Quality Certification Application

INTRODUCTION

On August 20, 2018, the Wetlands and Subaqueous Lands Section (WSLS), Division of Water, Department of Natural Resources and Environmental Control received an application from Coastal and Estuarine Research, Inc. submitted on behalf of Sargio Corporation to conduct mechanical dredging of 3,500 cubic yards of sediment from Bay Vista Marina. This material will then be disposed of on an adjacent upland lot owned by the Sargio Corporation located in Rehoboth Beach, Sussex County, Delaware. The proposed project is subject to the requirements of the Subaqueous Lands Act (7 Del. C., Chapter 72) and the Regulations Governing the Use of Subaqueous Lands in addition to the Department's Regulations Governing the Control of Water Pollution, 7 Del. C., Chapter 60, and Section 401 of the Clean Water Act 33 U.S.C Section 1341,

The project was placed on a 20 day public notice on September 19, 2018. During the public notice period, the WSLs received several written comments in favor of the project and one comment against the project from Henry Shaubach. Mr. Shaubach's objection claimed that the proposed project lacked engineered site plans, sediment and stormwater management plans, and contained no testing of water and dredge spoils for pollutants. In addition, concerns were expressed regarding previous land use changes that have supposedly increased water ponding near the end of First Street in Rehoboth Beach, DE.

Due to the fact that only one individual objected to the proposed project, the WSLs decided to meet with Mr. Shaubach and see if we could address his concerns regarding the proposed project. On October 3, 2018, Mr. Shaubach and his wife, Pheobe, came to the DNREC Richardson and Robbins Building in Dover, DE to meet with WSLs Environmental Scientist George Geatz and WSLs Program Manager Tyler Brown. Over the course of this meeting, WSLs representatives explained that we have no jurisdiction over previous land use changes at the end of his street and could not control drainage issues caused by this. Additionally, it was explained that this is a typical dredging project in southern DE, and that due to the lack of heavy industry in the area we typically don't require applicants to submit materials proving that the materials are not toxic. An on-site meeting was then setup between the applicant and Mr. Shaubach on October 25, 2018 to discuss concerns.

Before this meeting could take place, DNREC Division of Water Groundwater Protection Branch Hydrologist Amber Bataille conducted a review of the project and determined that a public groundwater withdrawal well was found near the project area. Part of the proposed dredge disposal area was located within a wellhead protection area (WHPA). The WHPA was created using a calibrated groundwater model to estimate the area that contributes water to the well during a 5 year period. The applicant was informed of this area, and based on the WHPA data the westernmost proposed dredge spoil cell was abandoned per WSLs requirements.

At the on-site meeting at Bay Vista Marina on October 25, 2018, members of the Shaubach family, owners of Sargio Corporation, the environmental consultant Evelyn Maurmeyer, and the contractor George Appel were in attendance. During this meeting, the group walked the proposed boundaries of the dredge disposal site and Mr. Shaubach expressed concerns about the proximity of the site to his property. Boundary flags were placed to identify the mutually agreed upon limits of the dredge disposal site and GPS points were taken to 50 cm accuracy of these locations to ensure that the boundary data was appropriately recorded. These points were then surveyed later by Triangle Surveyors and the points were confirmed to matchup with DNREC WSLs data. In addition to the disposal area being mapped, it was agreed upon that the applicant will get an approved Sussex Conservation District Erosion and Stormwater (E&S) Management plan along with a chemical analysis of the dredge sediments (compiled from 5 random grab samples throughout the marina basin) to confirm that no contaminants of public health concern are present. The approved Sussex County E&S Management Plan and the sediment chemical analyses were received on January 3, 2019. The lab manager of the analyzing lab suggested that no harmful pollutants stood out as being present in significant quantities, and a review from DNREC Hydrologist John Cargill provided further confirmation. The applicant also agreed to remove some road gravel that Mr. Shaubach believed contributed to the flooding of his property and also agreed to install a swale if needed to remove water. Mr. Shaubach was

informed that DNREC could not enforce the agreement between the parties regarding these two matters as both of these activities were out of DNREC WSLs jurisdiction.

Following the October 25, 2018 on-site meeting, Sargio Corporation removed the gravel fill from the road surface on October 28, 2018 and brought the area back to its original elevation, which was confirmed in the field by George Geatz of DNREC WSLs. During this time Mr. Shaubach expressed concern that the excavation equipment had cut a coaxial cable line, which was confirmed. Comcast was contacted to resolve this issue. On January 8, 2019, Mr. Shaubach was emailed his requested items including two maps of the final dredge disposal location (one map showed a zoomed in location of the 11 surveyed flags on the ground and one which showed his property), the approved Sussex Conservation District E&S Management Plan, and the laboratory chemical analysis of the lagoon sediment. Mr. Shaubach was given until January 14, 2019 to review these documents, upon which Tyler Brown and George Geatz of DNREC WSLs contacted him and determined that he was still unsatisfied with the items provided and requested additional information. Mr. Shaubach was informed that Sargio Corporation had gone above and beyond what they were asked to do and modified the project based off his concerns. Additionally, the WSLs notified him that he had until January 18, 2019 to determine if he wished to move forward with a public hearing. On January 18, 2019, Mr. Shaubach contacted DNREC WSLs and mentioned that he had visited the proposed dredge disposal site the day before, and that the flagging denoting the boundary of the site was altered and moved closer to his property boundaries. Mr. Shaubach then requested to move forward with the public hearing.

Based on Mr. Shaubach's objections to the project and the inability for Sargio Corporation to appease his concerns, the WSLs determined that it was necessary to hold a public hearing. The announcement for a public hearing was placed on a 20 day public notice on February 20, 2019. After advertisement of the public hearing, there were over 5 letters submitted in favor of the project while the only objector was Henry Shaubach, who had at this point retained the services of lawyer David Hutt of Morris James LLP.

The public hearing was held on March 14, 2019. The public hearing was attended by WSLs staff, the representatives of Sargio Corporation (owner John Candeloro, consultant Evelyn Maurmeyer of Coastal and Estuarine Research, Inc., and attorney Hal Dukes), Henry Shaubach and his attorney David Hutt, along with individuals from the public. The hearing began with DNREC WSLs representative George Geatz giving a presentation which described the background of the project from the initial application through the on-site meetings. This included recounting the attempts to revise the application to address Mr. Shaubach's concerns and discussed why a hearing was deemed necessary.

Next to speak was the applicant's attorney, Hal Dukes. Mr. Dukes explained that keeping a viable marina increases property values within the Bay Vista community in addition to providing a recreation facility which is becoming harder and harder to find in Rehoboth Beach.

John Candeloro, the authorized agent for Sargio Corporation, spoke next. Mr. Candeloro stated that after years of complaints from slip holders regarding access into and out of the marina, at low and mid tide, the marina needed to be dredged even though the cost of doing so will far outweigh the money brought in each boating season. Following the public notice process,

Mr. Candeloro summarized that he made numerous attempts to satisfy the lone objector to the project, Henry Shaubach. Sargio Corporation addressed Mr. Shaubach's concerns by regrading the existing access road to the original elevation, proposing to install a drainage swale to divert water from the end of First Street, and performing chemical testing of the dredge sediment in addition to getting an approved Sussex County E&S Plan. Each of these solutions was agreed to by Mr. Shaubach in the presence of both Sargio Corporation members and DNREC WSLs staff members George Geatz and Tyler Brown. In conclusion, Mr. Candeloro noted that this is a viable single-family home building lot and that Sargio Corporation could raise the land above the 100 year flood plain and build a house on the lot right now if they deemed it necessary.

The applicant's consultant, Evelyn Maurmeyer of Coastal and Estuarine Research, Inc., gave the next presentation. She explained that she has 38 years of experience in permitting within Sussex County and that the main point she would like to drive home is that John Candeloro went above and beyond the requirements of a normal dredging project. The chemical testing of sediments prior to the dredging of areas around the Delaware Inland Bays is typically not required due to the lack of a history of heavy industry which would leave legacy pollutants. Still, the sediments were tested and the majority of analytes came back at undetectable levels. Those chemicals which did register were all within environmentally acceptable thresholds.

The Shaubach family was represented by attorney David Hutt, who submitted both an official letter and a Microsoft Powerpoint presentation into the exhibits with objections to the project. First, Mr. Hutt claims that several brownfield sites are located close to the dredging area, which he presumes indicates a high probability of contaminated sediments in the vicinity of Bay Vista Marina. Additionally, Mr. Hutt claims that Sargio Corporation did not do any chemical testing of the material that will be dredged and that the grab sampling scheme was insufficient to properly characterize the sediment present. Mr. Hutt also stated that the potential effects on the Shaubach's groundwater well quality had not been considered. Third, Mr. Hutt claimed that several DNREC regulations regarding Marinas, the Use of Subaqueous Lands, and Hazardous materials have not been sufficiently examined. Finally, Mr. Hutt indicates that stormwater drainage from the Shaubach's property will be affected by the installation of the berm that will contain the dredge spoil material.

Following Mr. Hutt's presentation of the objections of the Shaubach family, the forum was opened up to the general public for comment. During the public comment period, eleven members of the public spoke in favor to the proposed dredging of Bay Vista Marina. All of these comments came from slip holders who were unable to ingress and egress at the majority of the tidal cycle. Key comments included that the silted in marina provided a safety hazard. Additionally, a local realtor provided testimony that the access to a viable marina was a major enhancer of property values in the area, and that when it rained all properties located on First Street had some form of water ponding. Several commenters confirmed that flooding was a problem throughout First Street properties, due to the low relief of the landscape and the general geography of the area.

Following the conclusion of the public hearing, the official record was kept open until March 18 at 4:30 p.m.

This Technical Response Memorandum (TRM) presents the Wetlands and Subaqueous Lands Section's findings regarding the above-referenced permit application, the public comments received during the public notice period and the testimonies given during the public hearing.

REGULATORY REVIEW - SUBAQUEOUS LANDS

The following review evaluates the proposed project with respect to the requirements of the Subaqueous Lands Act (7 Del. C., Chapter 72 and the Regulations Governing the Use of Subaqueous Lands (Regulations) adopted in accordance with the statute. The Regulations provide the criteria for evaluating projects that are proposed to be constructed in public or private subaqueous lands. The burden is on the applicant to prove to the Department that the requirements of these Regulations have been met; and if the granting of any permit will result in loss to the public of a substantial resource, that the loss has been offset or mitigated. The Department's regulatory evaluation and the public comments received are addressed according to the pertinent sections of the Regulations as follows.

Section 4.0 Criteria of Permits, Leases and Letters of Authorization - Evaluation Considerations. Each application shall be reviewed based on the consideration of the performance specifications, standards and other criteria listed in this section for the type of activity proposed.

The most relevant portions of Section 4.0 for the proposed project are discussed below. These include Section 4.6 - Public Use Impact, Section 4.7 - Environmental Considerations and Section 4.11 - Activities Involving Dredging, Filling, Excavating or Extracting Materials.

Section 4.6 Public Use Impact - The Department shall consider the public interest in any proposed activity which might affect the use of subaqueous lands.

All proposed activities within private subaqueous lands, channelward of the mean high water line, require a Subaqueous Lands Permit from the State of Delaware. When determining if an applicant should perform activities on these lands, the Wetlands and Subaqueous Lands Section considers the potential effect on the public and the extent to which the public will benefit or suffer detriment from the project. The public use impact most relevant to the proposed project is discussed in Section 4.6.3 below.

4.6.3 - The potential effect on the public with respect to commerce, navigation, recreation, aesthetic enjoyment, natural resources, and other uses of the subaqueous lands.

Bay Vista Marina is a private marina where the primary users are property owners within the Bay Vista community who participate in boating, watersports, fishing, and crabbing. As it currently stands, the marina has not been dredged for quite some time and several photographs submitted into the public record show that the marina basin is essentially a mudflat at low tide. This silting in of the marina basin has made ingress and egress into the marina impossible at most stages of the tidal cycle.

Several individuals at the public hearing made a point to say that they purchased property in Bay Vista primarily to use the marina facilities, and that current condition made the use of the marina difficult to impossible.

Section 4.7 Environmental Considerations

4.7.1.1 Any impairment of water quality, either temporary or permanent which may reasonably be expected to cause violation of the State Surface Water Quality Standards. This impairment may include violation of criteria or degradation of existing uses.

The dredge spoil material will be placed directly offsite in a containment parcel adjacent to Bay Vista Marina. The containment area will be fully surrounded by a berm and capped after dewatering; therefore no surface water discharges of dredging spoils are expected. Dredge spoil loss from trucking activities are expected to be minimal as water-tight dump trucks will be used and the disposal site is in close proximity to the marina.

4.7.1.3 - Any harm to aquatic or tidal vegetation, benthic organisms or other flora and fauna and their habitats.

The dredging activity will temporarily disrupt benthic and aquatic organisms, but due to the temporary nature of the project, this impact should be minimal. Dredging will occur over a relatively short time period, allowing the recovery of aquatic organisms following the completion of the dredging event. Additionally, future dredging events will be years in the future which will give plenty of time for benthic communities and aquatic food web structures to restore to baseline conditions.

To ensure the protection of sensitive aquatic species in the area, a review by the DNREC Fisheries Section recommended the following: "Given the close proximity of the project area to the Rehoboth Bay, and its importance to the larval ingress of summer flounder, we recommend that no dredging occur from March 1st through September 30th. This time of year restriction would reduce the potential impact of dredging activities, within the canal or near the entrance of the marina to the canal, on young of the year and juvenile summer flounder." The DNREC WSLs has placed this time-of-year-restriction within the draft permit as a special condition to protect environmental resources.

Section 4.11 Activities Involving Dredging, Filling, Excavating or Extracting Materials

4.11.2 General Evaluation Consideration. The Department shall consider the following additional factors in reviewing a dredging, filling, excavating, or extracting application:

4.11.2.2 Any environmental effects of the disposal of the dredged materials at and surrounding the disposal or fill site(s), before or after mitigation, during and following the disposal of fill activities and particularly impacts on water quality as described below in 4.11.3.

A chemical analysis for pollutants of human health concern of the proposed dredge material was submitted by the applicant and reviewed by John Cargill of DNREC. For the 5 metals that registered in the test, each was found in a concentration lower than the screening level value which would require a detailed risk analysis to be performed. In short, the levels of these metals present in the dredge spoil are not of a significant human health risk.

The proposed confined dredge disposal area will be surrounded by a berm and will be used to physically contain the material, preventing spillage and potential sedimentation of the surrounding properties and surface water bodies.

4.11.3 Water Quality on Dredging Projects. The applicant may be required to submit information to the Department to facilitate its evaluation of water quality impacts, as may be required to ensure compliance with State Surface Water Quality Standards. The following concerns for protecting water quality shall be specifically considered by the Department in evaluating applications for dredging projects:

4.11.3.1 All dredging is to be conducted in a manner consistent with sound conservation and water pollution control practices. Spoil and fill areas are to be properly diked to contain the dredged material and prevent its entrance into any surface water. Specific requirements for spoils retention may be specified by the Department in the approval, permit or license.

The proposed dredging will include best management practices during the in-water events and during the spoil dewatering and stabilization processes. These practices will be in accordance with sound water pollution control practices and DNREC's Surface Water Quality Standards, and are typical requirements when authorizing a dredging activity in order to minimize impacts to the environment. During dredging, a sediment curtain will be installed at the mouth of the marina basin to prevent sediment from entering the Lewes-Rehoboth Canal. Disposal of the dredged material is proposed via water tight dump truck to the upland confined disposal area which has previously been used for spoil material. In order to dewater properly, the material will be contained in the upland confined disposal area by earthen berms.

4.11.3.2 All material excavated shall be transported, deposited, confined, and graded to drain within the disposal areas approved by the Department. Any material that is deposited elsewhere than in approved areas shall be removed by the applicant and deposited where directed at the applicant's expense, and any required mitigation shall also be at the applicant's expense.

The dredge material will be directly deposited on a parcel of land owned by the applicant directly adjacent to the marina basin. The material will be placed within the bermed confines of the disposal facility primarily by a long-reach excavator. Sectional barges assembled on site will be used to transport the excavator into the marina basin to reach areas not accessible from the uplands, after which a smaller barge will transfer the material to the shore where it will be placed into dump trucks and transferred to the disposal area. The relatively small distances that the dredge spoil will be transported and the location of the disposal area near the dredge site are all recommended by DNREC WSLs in comparison to trucking the material offsite where it could

spread over roadways and increase the potential and scope of surface water sedimentation. Additionally, the proposed disposal area was previously used for spoil storage so the material to create an earthen berm and the cap for the final dewatered material is already present.

CONCLUSION

The WSLS finds that the activity described in the application for the Subaqueous Lands Permit and Water Quality Certification by Sargio Corporation at Bay Vista Marina, including the dredging of 3,500 cubic yards of sediment and disposal on an adjacent upland parcel, complies with the Regulations administered by the WSLS.

There is agreement among all parties involved that the marina has silted in and needs to be dredged, the only contentious issue here relates to one landowner, Mr. Shaubach, not wanting the dredge material disposed near his property. Over the course of several months of back and forth meetings with Mr. Shaubach and the applicant, several concerns were addressed. Mr. Shaubach believes the previous installation of the spoil disposal site backed water onto his property, although there is little evidence to support this claim. The area is all low relief coastal plain material, and due to the location of this property at the end of First Street nearest to the marina and wetlands, it can be assumed that water naturally drained in this direction before the installation of a berm. Additionally, these drainage issues are not within the jurisdiction of Department, although the applicant has agreed to install a drainage swale near the new disposal site. DNREC WSLS cannot require this action. Chemical testing of the dredge sediment did not identify significant levels of any pollutant known to contaminate wells or pose a significant human health hazard. DNREC confirmed there is a very low likelihood of any well water contamination, including the introduction of salts, to Mr. Shaubach's well as the general groundwater flow pattern from the disposal site does not intersect his property. Finally, the applicant went through the process of obtaining an approved Sussex County Conservation District E&S Management Plan, which is typically done after receiving necessary permits for a project.

The applicant noted that the funding for this dredging event will far exceed the amount that the marina brings in on a yearly basis and that this cost is already a burden. Trucking the material offsite would require at least 350 water-tight dump trucks, costing additional tens of thousands of dollars. This would significantly increase the cost of this dredging project and would not allow it to occur. Storing the material on-site, in a cell that has been previously used for spoil material, is the most environmentally conscious and financially feasible way to accomplish this dredging project. This will allow minimal transport of the material along roadways, allow it to dewater nearest to the source, and generally minimize potential environmental impacts. The applicant DNREC WSLS officials and addressed many of the concerns raised by Mr. Shaubach.

In order to address the above referenced concerns, the following special conditions are included in the draft Subaqueous Lands Permit and Water Quality Certification: *"Due to dredge disposal site concerns addressed during the public process, the DNREC WSLS Department shall be contacted prior to the commencement of the dredging."* This will allow department scientists to verify the boundary locations of the dredge containment area and to make sure that approved construction plans have been followed prior to active dredging activities.

In the event the Secretary determines that this project should be approved, included are draft authorizations with appropriate conditions for consideration.



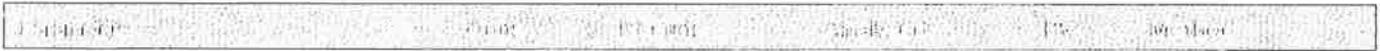
51 Clark St. Harrington, DE 19952
PH: 302.398.4313 FX: 302.398.4312

ANALYTICAL SERVICES: NPDES, RCRA, GROUND WATER MONITORING

ANALYTICAL RESULTS

C.E.R. Inc.
P.O. Box 674
Lewes, DE 19958
Attention: Evelyn Maurmeyer

Lab ID: 265242	Matrix: Soil/Sludge	Sample Start: 11/26/18 10:00
Description:	Site: Bay Vista Lagoon	SampleEnd:
Type: Grab		Date Received: 11/26/18 11:45



Miscellaneous/Other

SHIP	Completed	12/21/18 0:49	SWL	None
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ND = Not Detected
* = Above Specified Limit
** = Above Client Limit



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Certificate of Analysis

December 21, 2018

Erin Bichy
Envirocorp Labs, Inc.
51 Clark Street
Harrington, DE 19952

Work Order: 1830752
Project: General - DE

Dear Erin Bichy,

Enclosed is your report of analysis that contains the result(s) of the sample(s) received on 11/27/2018. Please direct any questions or comments regarding the content of this report to our Client Services Manager, Mr. Kevin Green; or the Laboratory Director, Mr. Raymond J. Martrano at (570) 326 - 4001.

Seewald Laboratories, Inc. is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and the analytical result(s) contained in this report meet those regulation requirements, except where noted. For example, all drinking water testing and/or analysis comply with the requirements in 40 CFR part 141. All wastewater testing and/or analysis comply with the requirements in 40 CFR part 136. All Solid and Chemical Material testing and/or analysis complies with the requirements in SW-846. All quantitative solid result(s), unless otherwise indicated, are reported on a dry weight basis obtained by a percent moisture calculation.

Sample(s) that were collected by Seewald Laboratories, Inc. personnel are done in accordance with the latest revision of the laboratory's Field Sampling and Field Analysis Standard Operating Procedures. The result(s) contained within this report are representative of the sample(s) as received. Any and all information provided to us by the client was not performed by Seewald Laboratories, Inc. and is not within our scope of accreditation. Any abnormalities in how the sample(s) were received are noted in the documentation contained herein.

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Regards,

Seewald Laboratories, Inc.



Approved by: _____

Ray Martrano, Laboratory Director

PA Lab ID: 41-00034 • Maryland Certificate #: 202 • Delaware Office of Drinking Water • NY State Lab ID: 12028

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Envirocorp Labs, Inc. 51 Clark Street Harrington, DE 19952	Project: General - DE Project Number: 265242 - C.E.R. Inc Reported: 12/21/2018 11:50
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Sample Summary

Lab ID	Sample	Matrix	Sampled	Received
1830752-01	265242 - Bay Vista Lagoon	Solid	11/26/2018 10:00	11/27/2018 10:00





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Envirocorp Labs, Inc. 51 Clark Street Harrington, DE 19952	Project: General - DE Project Number: 265242 - C.E.R. Inc Reported: 12/21/2018 11:50
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Analytical Results

Sample ID: 265242 - Bay Vista Lagoon **Sampled:** 11/26/2018 10:00
Lab ID: 1830752-01 **Received:** 11/27/2018 10:00
Matrix: Solid

Analyte	Result	Units	Qualifier	Reporting Limit	Prepared	Analyzed	Method	Analyst
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General Chemistry

% Moisture	66.5	%		0.500	11/28/18 14:29	11/28/18 14:40	SM 2540 G	JW
% Solids	33.5	%		0.500	11/28/18 14:29	11/28/18 14:40	SM 2540 G	JW

Metals

Arsenic	ND	mg/Kg dry		7.24	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Barium	49.4	mg/Kg dry		1.45	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Cadmium	ND	mg/Kg dry		0.434	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Chromium	63.9	mg/Kg dry		1.45	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Lead	34.1	mg/Kg dry		7.24	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Selenium	7.29	mg/Kg dry		7.24	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Silver	ND	mg/Kg dry		1.45	12/4/18 12:38	12/7/18 12:04	EPA 3050 B/6010 C	SM
Mercury	0.188	mg/Kg dry		0.0477	11/28/18 09:43	11/28/18 15:39	EPA 7471 B	APS

Polychlorinated Biphenyl (PCBs) - GC/ECD

Aroclor 1016	ND	mg/Kg dry	D, G4	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1221	ND	mg/Kg dry	D	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1232	ND	mg/Kg dry	D	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1242	ND	mg/Kg dry	D	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1248	ND	mg/Kg dry	D	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1254	ND	mg/Kg dry	D	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Aroclor 1260	ND	mg/Kg dry	D, G4	0.295	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS

Surrogate: Decachlorobiphenyl	91.0%			48.8-152	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS
Surrogate: Tetrachloro-m-xylene	93.0%			48.1-135	11/28/18 12:00	12/5/18 06:08	EPA 3550 C/8082 A	JAS

Organochlorine Pesticides GC/ECD

4,4'-DDD	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
4,4'-DDE	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
4,4'-DDT	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Aldrin	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS





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Envirocorp Labs, Inc.	Project: General - DE
51 Clark Street	Project Number: 265242 - C.E.R. Inc
Harrington, DE 19952	Reported: 12/21/2018 11:50

Analytical Results

Sample ID: 265242 - Bay Vista Lagoon (Continued) **Sampled:** 11/26/2018 10:00
Lab ID: 1830752-01 **Received:** 11/27/2018 10:00
Matrix: Solid

Analyte	Result	Units	Qualifier	Reporting Limit	Prepared	Analyzed	Method	Analyst
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Organochlorine Pesticides GC/ECD (Continued)

Alpha-BHC	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
alpha-Chlordane	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Beta-BHC	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Chlordane (tech.)	ND	mg/Kg dry		0.0498	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
delta-BHC	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Dieldrin	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endosulfan I	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endosulfan II	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endosulfan Sulfate	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endrin	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endrin Aldehyde	ND	mg/Kg dry	ML	0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Endrin Ketone	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Gamma-BHC	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
gamma-Chlordane	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Heptachlor	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Heptachlor epoxide	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Methoxychlor	ND	mg/Kg dry		0.00993	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Toxaphene	ND	mg/Kg dry		0.199	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
<hr/>								
Surrogate: 2,4,5,6-Tetrachloro-m-xylene	71.1%			15.1-116	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS
Surrogate: Decachlorobiphenyl	69.3%			24.5-130	12/10/18 10:00	12/18/18 22:11	EPA 3550 C/8081 B	JAS

Semi-Volatile Organic Compounds (SVOCs) - EPA 8270

Acenaphthene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Acenaphthylene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Anthracene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Benzo(a)anthracene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Benzo(a)pyrene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Benzo(b)fluoranthene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Benzo(g,h,i)perylene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Benzo(k)fluoranthene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS





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Envirocorp Labs, Inc.
51 Clark Street
Harrington, DE 19952

Project: General - DE
Project Number: 265242 - C.E.R. Inc
Reported: 12/21/2018 11:50

Analytical Results

Sample ID: 265242 - Bay Vista Lagoon (Continued) **Sampled:** 11/26/2018 10:00
Lab ID: 1830752-01 **Received:** 11/27/2018 10:00
Matrix: Solid

Analyte	Result	Units	Qualifier	Reporting Limit	Prepared	Analyzed	Method	Analyst
Semi-Volatile Organic Compounds (SVOCs) - EPA 8270 (Continued)								
Chrysene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Dibenzo(a,h)anthracene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Fluoranthene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Fluorene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Indeno(1,2,3-cd)pyrene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Naphthalene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Phenanthrene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Pyrene	ND	mg/Kg dry	D	0.995	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: 2,4,6-Tribromophenol	83.9%			0.1-177	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: 2-Fluorobiphenyl	61.4%			20.9-134	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: 2-Fluorophenol	58.0%			0.1-88.3	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: Nitrobenzene-d5	54.1%			0.1-152	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: Phenol-d6	61.4%			0.1-94.1	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS
Surrogate: Terphenyl-d14	89.7%			0.1-172	12/10/18 10:00	12/21/18 00:49	EPA 3550 C/8270 D	JAS





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Envirocorp Labs, Inc.	Project: General - DE
51 Clark Street	Project Number: 265242 - C.E.R. Inc
Harrington, DE 19952	Reported: 12/21/2018 11:50

Notes and Definitions

Item	Definition
D	The sample result is reported with an elevated reporting limit and/or detection limit due to sample dilution or limited sample mass.
G4	The Calibration Verification recovered above laboratory established acceptance criteria, however, the sample concentration was determined below the reporting limit.
ML	The Calibration Verification recovered low and was not within the laboratory established acceptance criteria.
ND	Not Detected at or above the Minimum Reporting Limit
Reporting Limit	This value represents the minimum concentration that the target analyte can be identified and quantitated with confidence



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imround.

rt Format:

Standard or Rush Report / MDL Report
QC Report / EDD



1830752

Cash Check Cr. Card
PO# Ck# Not Paid

Invoice information (if different):
Shelly Bloom

SEEWALD LABORATORIES, INC.
2829 Reach Road
Williamsport, PA 17701
Phone: (570) 326 - 4001 Fax: (570) 326 - 0399
Complete Online at www.seewaldlabs.com

Customer Contact Information:

Contact Person: Erin Bichy or Rachael Needarm
Client/Co. Name: Envirocorps Labs, Inc.
Address: 51 Clark Street
City, State, Zip: Harrington, DE 19952
Telephone No: 302.398.4313
Cell No:
Fax No: Erin@envirocorplabs.com
Email Address: Rachael@envirocorplabs.com

Sample Information: Project:

pH SU Temp °C Meter # * Comp #1 8 12 24 * Comp #2 8 12 24
DO mg/L Temp °C Meter # Start: @ End: @
Cl₂ Tot Free mg/L Meter # Start: @ End: @
Sp Cond mg/L Temp °C Meter #

Completed By: *JK*
C.E.R. Inc

Project #:

Container Type/Preservation (see keys)
CG 0

Compliance Sample Information

PWSID # NA
Monitoring Period:
Reason:
Report Type (key): A C D E M P R S
Location Code/ID: Delaware

UPS US Postal Walk In
Client Notified? (Yes)
Date/Time: 11/27/18
Spoke to: *nessy49e*
Reason: *SNOC List*

Reporting Type Key:
A = Start up R = Raw
C = Check S = Special
D = Distribution
E = Entry Point
M = Max Residence
P = Plant

Comments/Notes:
DE

Tier 1: *JK 11/27/18* Tier 2: *JK 11/27/18* Sub. WO Completed
Analyses/Methods Requested
See attached (or Ray Martrano)
8870 SNOC PAH
8081 Pest
8082 PCB
to solid + moisture
Temp BCCA & Hg
Total
JK 11/27/18

pH checks completed by: *RA*
Field Services
Mileage/Hours/Fees:

Container: (CG) Clear Glass (AG) Amber Glass (P) Plastic (V) Vial (SP) Sterile Plastic (WP) Whirl-Pak (O) Other
Preservation: (0) none (1) H2SO4 (2) HCL (3) HNO3 (4) NaOH (5) Zn(O2CCH3)2 (6) Na2S2O3 (7) NH4CL (8) H3PO4 (9) Other (a) NH4Cl (b) C6H6O6 (c) MeOH (d) NaHSO4
Matrix: (DW) Drinking Water (NPW) Non-Potable Water (SCM) Solid/Chemical Materials (D) Dairy (FD) Frozen Desserts (F) Food (PC) Plastic Cont. (ENV) Env. Swabs (SW) Surface Water
(GW) Ground Water (A) Air (DI) Reagent Water (O) Other

Sampled By (1st) Print Name: *CLIENT RAIN 11/8* Signature: *[Signature]* Sampled By (1st) Signature:

Relinquished By (1st): *[Signature]* → Date: *11/26/18* → Time: *17:00*
Relinquished By (2nd): *[Signature]* → Date: *11/27/18* → Time: *10:00*
Relinquished By (3rd): *[Signature]* → Date: _____ → Time: _____
Relinquished By (4th): _____ → Date: _____ → Time: _____

