



## **PUBLIC NOTICE**

### **The U.S. Environmental Protection Agency's Proposal to Issue a Hazardous Waste Permit Renewal to StarLink Logistics Inc.'s Facility in Barceloneta Puerto Rico and to Approve the Completion of Certain Corrective Action Activities and a Groundwater Well Closure Plan**

The United States Environmental Protection Agency (EPA) hereby gives notice of its tentative determination to issue a Hazardous Waste Permit renewal to StarLink Logistics Inc. (StarLink) for its facility located at State Road #2, Km 56.7 Interior, Trinidad Ward, Barceloneta, Puerto Rico (EPA ID Number PRD090028101), and to approve certain corrective action activities that were performed at the site.

This Permit represents the renewal of a permit previously issued in July 2006 (the "2006 Permit") to Merck Sharp & Dohme Química de Puerto Rico, Inc. ("MSDQ") with respect to MSDQ's pharmaceutical formulation, manufacturing, and packaging facility (the "Original Facility") at the same address. In November 2010, due to a corporate restructuring, MSDQ's operations of the facility were transferred, and the facility's name was changed to MSD International, GmbH (Puerto Rico Branch) LLC (MSD International).

In or about 2014, MSD International suspended all manufacturing of active ingredients at the Original Facility, continuing only its pharmaceutical formulation and packaging operations. At and leading up to this time, these changes in operations resulted in the shutdown or suspension of operation of the Original Facility's hazardous waste management units ("HWMUs").

In 2014, during the term of the 2006 Permit, ownership and operation of the Original Facility passed to Merial Barceloneta, LLC ("Merial"). On August 26, 2015, upon request of Merial and MSD International, EPA approved the transfer of the 2006 Permit to Merial as the new Permittee.

In 2016, the real property on which the Original Facility was situated was subdivided into two portions, identified as the western and eastern portions. Merial retained ownership and operation of the western portion of the Original Facility (the “Merial owned property”) and transferred the ownership and operation of the eastern portion of the Original Facility to StarLink Logistics Inc. (“StarLink” and “StarLink owned property”). Upon application of Merial and StarLink, on March 6, 2017, EPA approved a modification to the 2006 Permit that added StarLink as a co-permittee, along with Merial, for the Original Facility.

Manufacturing activities and all of the HWMUs, with the exception of two landfill units, were located on the western portion of the Original Facility. These HWMUs were closed pursuant to EPA approved closure plans and, by letter dated March 27, 2017, EPA approved the Final Certification Report of Closure for the HWMUs located on the western portion of the Original Facility.

The Old Landfill, a solid waste management unit (“SWMU”) and the Secure Landfill, which is RCRA-closed, are located on the eastern portion of the Original Facility. With respect to the Old Landfill, by letter dated May 18, 2017, EPA tentatively approved the Old Landfill Sampling and Analysis Plan (SAP) Implementation Report filed by Merial and StarLink in May 2016, as revised on January 13 and March 8, 2017. Additionally, by letter dated March 16, 2018, EPA tentatively determined that additional groundwater monitoring will not be required for the Old Landfill, and that groundwater wells used to monitor the areas around the Old and Secure Landfills may be taken out of service pursuant to an approved closure plan. These tentative EPA determinations, and a proposed closure plan for the groundwater wells, are hereby subject to public notice and comment.

Additionally, EPA is hereby public noticing its tentative determination to issue a Permit applicable solely to the subdivided eastern portion of the Original Facility, now owned and operated by StarLink (hereafter referred to as the “StarLink Facility” or “Facility”). Further, if the draft Permit is finalized, Merial’s status as co-permittee will be terminated, and the new Permit will be issued to StarLink as sole permittee (hereinafter, “Permittee”). StarLink shall be responsible for implementing all terms of the final Permit, including implementing any off-site corrective action related to activities at the Original Facility.

This draft Permit consists of three modules. Module I sets forth Standard Conditions, Module II General Facility Conditions, and Module III Corrective Action requirements. For details regarding these Modules, please refer to the Statement of Basis, which is referenced below and available for review. If finalized, the Permit will have a ten (10) year term, starting from the date when it takes full effect.

This Notice advises the public that EPA has made a tentative determination to issue the draft Permit renewal to StarLink subject to public notice and comment. A forty-five (45) day public comment period begins as of the date of this Notice, on **October 18, 2019** and will extend through **December 1, 2019**.

Any person may submit written comments on EPA's tentative decision to issue the draft Permit renewal to StarLink and may also request in writing that a public hearing be held on this matter in accordance with 40 C.F.R. ' 124.12. The request for a public hearing must state the issues proposed to be raised at such hearing. Both written comments and requests for a hearing must be postmarked no later than **December 1, 2019**, which is forty-five (45) days from the date of publication of this notice, and be addressed to:

Carmen R. Guerrero-Pérez, Director  
U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073

The Statement of Basis, the Public Notice, the Draft Permit, and all supporting data and documents, including those related to EPA's tentative determinations to approve the Old Landfill SAP Report, the cessation of groundwater monitoring at the Old Landfill and the proposed closure plan for the groundwater monitoring wells, are available for review Monday through Friday from 9 am to 4 pm (except for federal holidays) at:

Biblioteca Municipal de Barceloneta  
Biblioteca Comunitaria Sixto Escobar  
Avenida Escobar Num. 1  
Barceloneta, Puerto Rico. 00617  
Phone: (787) 846-7056

U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza II  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073  
Contact: Angel Salgado (787) 977-5854 or [salgado.angel@epa.gov](mailto:salgado.angel@epa.gov)

Environmental Quality Board

Land Pollution Control Area  
Hazardous Waste Permit Division  
Ponce de Leon Avenue #1308  
Carr Estatal 8838  
Sector El Cinco  
Rio Piedras, PR 00926  
Contact: Gerardo Santiago (787) 767-8181 x3457 or [gerardosantiago@jca.pr.gov](mailto:gerardosantiago@jca.pr.gov)

These documents are also available at the EPA website:

<https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-merial-barceloneta-llc-barceloneta-puerto-rico>

EPA will hold a public availability session regarding the draft Permit Renewal, and other approvals referenced above. A public availability session differs from, and does not constitute, a public hearing under 40 C.F.R. ' 124.12. The purpose of the public availability session is to share information and discuss issues, not make decisions. Comments made during the public availability session will not become part of the official administrative record, as they would during a public hearing. The public availability session will be held on **October 30, 2019** at 6:00 PM in Centro Comunal Barrio Magueyes, Carr. 140 intersection with Carr 664, Km. 0, Barrio Magueyes, Barceloneta, P.R.

EPA will carefully consider comments submitted during the comment period and will provide responses in a responsiveness summary accompanying the final permit decision. Within thirty (30) days of EPA's final decision, any person who submitted public comments, or who made a statement at a public hearing, if one is held, may petition the Environmental Appeals Board to review the decision based on comments he or she submitted. Persons who did not submit comments on the draft Permit renewal or make a statement during a public hearing may only appeal new changes made in the final permit renewal approved by EPA. See 40 C.F.R. ' 124.19

For additional details about EPA's permitting process, please consult the regulations set forth in 40 C.F.R. Parts 124 and 270.

Para ver este anuncio público en español visite la página web: [www.epa.gov/pr](http://www.epa.gov/pr).

## STATEMENT OF BASIS

### RCRA CORRECTIVE ACTION PERMIT AND APPROVAL OF CERTAIN CORRECTIVE ACTION ACTIVITIES AND GROUNDWATER MONITORING WELL CLOSURE PLAN

StarLink Logistics Inc. Facility (Formerly the Merial/StarLink Facility)  
EPA ID No. PRD090028101

#### I. INTRODUCTION

This Statement of Basis (“SOB”) outlines the United States Environmental Protection Agency’s (“EPA”) permitting and corrective action decisions for the StarLink Logistics Inc. (“StarLink”) facility located at State Road #2, Km 56.7 Interior, Trinidad Ward, Barceloneta, Puerto Rico. Specifically, the SOB addresses EPA’s tentative decisions to: i) issue StarLink a Corrective Action Permit under the Resource Conservation and Recovery Act, as amended (RCRA) for its Barceloneta facility; ii) approve the completion of certain remedial measures that have been conducted at the facility; and iii) approve a closure plan for groundwater monitoring wells located on the facility.

If issued, this proposed Permit will replace the 2006 RCRA Permit initially issued to Merck Sharp & Dohme Química de Puerto Rico, Inc. (“MSDQ”) which is now, through a series of ownership and property transfers, jointly issued to StarLink and Merial. Due to the approved completion of corrective measures on the portion of the StarLink/Merial facility owned by Merial, this Permit renewal will be limited to the portion of the existing facility containing a closed landfill unit, known as the Old Landfill, that is owned by StarLink and subject to corrective action. The Permit’s corrective action requirements include but are not limited to maintaining the cover on the Old Landfill, securing the Old Landfill with fencing and appropriate signage, maintaining financial assurance for these corrective measures, and performing periodic inspections of the Old Landfill.

EPA is also seeking comment on its tentative determination to approve a May 2016 Sampling and Analysis Plan (SAP) Implementation Report, which addresses the results of soil investigations of the Old Landfill. The SAP Implementation Report demonstrated that contaminants of concern in soils (*i.e.*, toluene, cyanide) were not present in excess of EPA’s health-based criteria at or from the Old Landfill. Accordingly, subject to public notice and comment, EPA has determined that additional soil remediation is not necessary, and the remedial measures for the Old Landfill are limited to those identified in Module III of the Permit and referenced in the previous paragraph.

In conjunction with its review of the SAP Implementation Report on soil data, EPA reviewed historical groundwater monitoring data available for the Old Landfill and has determined there

has been no impact to groundwater deep below the Old Landfill from toluene or other contaminants associated with the Landfill. Therefore, subject to public notice and comment, EPA has determined that no further groundwater monitoring is necessary for the Old Landfill and is approving the cessation of groundwater monitoring at the Facility as part of this permit issuance process. EPA is also public noticing a closure plan for these groundwater monitoring wells.

Information summarized in this SOB is available in greater detail in the relevant documents identified herein and included in the Administrative Record for this facility. EPA encourages the public to review these documents in order to gain a more comprehensive understanding of environmental conditions at StarLink and the RCRA activities conducted to date. The documents are available for public review at the locations provided at the end of this SOB.

## **II. DRAFT PERMIT**

Subject to public notice and comment, EPA is issuing this draft Corrective Action Permit to StarLink as permittee for a ten (10) year period. The Permit conditions are primarily based on the requirements of 40 C.F.R. Part 270 (EPA Administered Permit Programs: The Hazardous Waste Permit Program), and 40 C.F.R. Part 264 (Standards for Owners and Operators of Treatment, Storage, and Disposal Facilities). Some of the major aspects of this Permit include the following:

- EPA's approval of the May 2016 SAP Implementation Report regarding Permittee's investigation of soil contamination at or from the Old Landfill. The soil sampling data obtained during this investigation demonstrated that the contaminants of concern in soils (*i.e.*, toluene, cyanide) were not present in excess of EPA's health-based criteria. Based on such data, and subject to new information, EPA has determined that no further soil investigations are necessary at the Old Landfill. The SAP Implementation Report and underlying investigations are available for review as part of the public notice and comment process.
- EPA's determination that no further groundwater monitoring is necessary for the Old Landfill. EPA's determination is based on the comprehensive groundwater monitoring data, which indicates that there has been no impact to groundwater deep below the Old Landfill from contaminants of concern (*i.e.*, toluene, cyanide). Groundwater investigatory reports are available for review as part of this public notice and comment process.
- EPA's approval and Permittee's implementation of the closure plan for groundwater

monitoring wells formerly used to monitor the Old and Secure Landfills at the facility. The closure plan is an attachment to the permit (Attachment 9) and is available for review as part of this public notice and comment process. Requirements regarding the implementation of the closure plan are set forth in Section I of Module II.

- Permittee complying with the site care corrective action requirements for the Old Landfill including performing inspections, maintaining the Old Landfill's cover, and securing the Old Landfill area with fencing and appropriate signage. These requirements are set forth in Section G of Module III.
- Permittee recording, in accordance with Commonwealth law, a notation in the deed to the permitted facility property or in some other instrument which is normally examined during a real estate title search that will, in perpetuity, notify any potential purchaser of the property of the types and concentrations of the waste disposed and remaining in the Old Landfill, and that use of the property is subject to restrictions. These requirements are set forth in Section G of Module III of the Permit.
- Permittee maintaining appropriate financial assurance coverage for corrective measures as specified in Sections I and J of Module III of the Permit.
- Permittee assessing, investigating and remediating any newly identified solid waste management units, areas of concern or releases at or from the facility as required by Module III.
- Permittee implementing a final remedy for the Site. The final remedy for this Site will be achieved through the implementation of institutional/engineering controls such as maintenance and security requirements (*i.e.*, landfill cover care, perimeter fencing and warning signage, inspections), and legal/administrative controls such as recording notations in the property deed notifying prospective purchasers about past waste disposal activities and property restrictions. These conditions are referenced above.

EPA will public notice the draft permit, including the above referenced determinations regarding the approval of the SAP Implementation Report and the termination of groundwater monitoring, and solicit comments from the public through the administrative procedures set forth in 40 C.F.R. Part 124 prior to making its final permit issuance decision for the StarLink facility.

### III. DESCRIPTION OF THE FACILITY AND RCRA PERMIT

This Permit represents the renewal of a permit previously issued in July 2006 (the “2006 Permit”) to Merck Sharp & Dohme Química de Puerto Rico, Inc. (“MSDQ”) with respect to MSDQ’s pharmaceutical formulation, manufacturing, and packaging facility (the “Original Facility”) located at Bo. Trinidad State Road #2 KM, 56.7 Interior, Barceloneta, Puerto Rico. In November 2010, due to a corporate restructuring, MSDQ’s operations of the facility were transferred, and the facility’s name was changed, to MSD International, GmbH (Puerto Rico Branch) LLC (MSD International).

In or about 2014, MSD International suspended all manufacturing of active ingredients at the Original Facility, continuing only its pharmaceutical formulation and packaging operations. At and leading up to this time, these changes in operations resulted in the shutdown or suspension of operation of the Original Facility’s hazardous waste management units (“HWMUs”).

In 2014, during the term of the 2006 Permit, ownership and operation of the Original Facility passed to Merial Barceloneta, LLC (“Merial”). On August 26, 2015, upon request of Merial and MSD International, EPA approved the transfer of the 2006 Permit to Merial as the new Permittee.

In 2016, the real property on which the Original Facility was situated was subdivided into two portions, identified as the western and eastern portions. Merial retained ownership and operation of the western portion of the Original Facility (the “Merial owned property”) and transferred the ownership and operation of the eastern portion of the Original Facility to StarLink Logistics Inc. (“StarLink” and “StarLink owned property”). Upon application of Merial and StarLink, on March 6, 2017, EPA approved a modification to the 2006 Permit that added StarLink as a co-permittee, along with Merial, for the Original Facility.

Manufacturing activities and all of the HWMUs, with the exception of two landfill units, were located on the western portion of the Original Facility. These HWMUs were closed pursuant to EPA approved closure plans and, by letter dated March 27, 2017, EPA approved the Final Certification Report for Closure for the HWMUs located on the western portion of the Original Facility.

The Old Landfill, a solid waste management unit (“SWMU”) and the Secure Landfill, which is RCRA-closed, are located on the eastern portion of the Original Facility. With respect to the Old Landfill, by letter dated May 18, 2017, EPA tentatively approved the Old Landfill Sampling and Analysis Plan (SAP) Implementation Report filed by Merial and StarLink in May 2016, as

revised on January 13 and March 8, 2017. Additionally, by letter dated March 16, 2018, EPA tentatively determined that additional groundwater monitoring will not be required for the Old Landfill, and that groundwater wells used to monitor the areas around the Old and Secure Landfills may be taken out of service pursuant to an approved closure plan. These EPA tentative determinations, and a proposed closure plan for the former groundwater wells, are subject to public notice and comment as part of the proposed renewal of this permit.

Upon application of Merial and StarLink and in recognition of the foregoing history, EPA issues this renewed Permit applicable solely to the subdivided eastern portion of the Original Facility, now owned and operated by StarLink (hereafter referred to as the "StarLink Facility" or "Facility"). Further, Merial's status as co permittee is hereby terminated, and the Permit is hereby transferred to StarLink as sole permittee (hereinafter, "Permittee"). StarLink shall be responsible for implementing all terms of this Permit, including implementing any off-site corrective action related to activities at the Original Facility. Merial and StarLink have an agreement granting StarLink and/or subsequent Permittees and their consultants and/or representatives, as well as EPA, EQB and/or any successor agencies (and their representatives) access rights to property currently owned by Merial to perform and/or oversee any corrective actions on the Merial property pursuant to the terms of this Permit. This "corrective action access agreement" benefits any future owners of the StarLink real property and is binding upon successors in title to the Merial owned real property.

The StarLink Facility is currently inaccessible by public roads; Merial, however, in connection with the subdivision, granted StarLink and regulatory authorities the right to access the area by way of the Merial owned property until such time as a roadway is available linking a public road to the Old Landfill area (StarLink has represented that it is pursuing construction of such a roadway). This "temporary use easement" is part of the Deed of Conveyance granting the eastern portion of the Original Facility to StarLink; it benefits any future owners of that real property and is binding upon successors in title to the Merial owned real property. The address of the StarLink Facility will remain at Bo. Trinidad State Road #2 KM, 56.7 Interior, Barceloneta, Puerto Rico until the Facility can be accessed via a new road from Route PR-666, at which time the StarLink Facility will obtain a new street address from the appropriate Puerto Rico authority.

The corrective action access agreement and temporary use easement have been merged into a single Access Agreement signed by Merial and StarLink, which is attached to the Permit. The Access Agreement has been filed in real estate records as part of the Deed of Second

Amendment to the Deed of Conveyance<sup>1</sup> for recordation upon entry by the local Registry of Property.

This Permit consists of three modules. Module I sets forth Standard Conditions, Module II General Facility Conditions, and Module III Corrective Action requirements. Among other things, the corrective action requirements include: the final remedy for the Old Landfill, which consist of both engineering and institutional controls such as inspection requirements and filing the notices referenced above in the property real estate records; and require the facility to investigate, and perform any necessary corrective measures for, newly identified solid waste management units, areas of concern or releases of hazardous waste or constituents on or from the StarLink Facility or the Original Facility.

#### **IV. THE OLD LANDFILL: WASTE DISPOSAL AND REGULATORY HISTORY**

Industrial operations started at the facility in 1971. From 1971 through 1981, as part of its pharmaceutical manufacturing operations, the facility disposed of hazardous waste in a sanitary waste landfill located at the site's northeastern corner, which came to be known as the Old Landfill. The landfill measured approximately 250 feet by 500 feet and consisted of two rectangular cells that were approximately 20 feet deep. Waste disposed of in the Old Landfill included residuals from methyldopa production, iron-cake waste containing toluene, sludge from the facility's wastewater treatment system, and process filter cartridges containing cyanide. In 1981, the facility ceased disposing of waste in the Old Landfill and capped it with four feet of silt clay.

In 1986, the Permittee conducted a site-wide RCRA Facility Assessment ("RFA") which identified thirty-seven solid waste management units and determined that five units, including the Old Landfill, needed to be further investigated under a RCRA Facility Investigation ("RFI"). The Permittee conducted the RFI in 1989. Based on the RFI, EPA determined that corrective action was required for two landfill units – the Secure Landfill (which was a RCRA regulated landfill used for hazardous and/or non-hazardous waste between 1981 and 1992) and the Old Landfill – and that no further corrective action was required for the three non-landfill SWMUs. The Secure Landfill is RCRA closed, and, subject to new information, is not regulated under this Permit.

The Old Landfill was extensively studied as part of the 1989 RFI. The RFI revealed the presence of toluene above EPA's then Regional Screening Levels in soils, but it did not show impacts to

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<sup>1</sup> Because the Access Agreement amends the temporary use easement in the Deed of Conveyance, it is identified as the Second Amendment to the Access Agreement in the Deed of Second Amendment to Deed of Conveyance.

groundwater beneath or in the vicinity of the Old Landfill. In 1990, Permittee Merck submitted a Corrective Measures Study (CMS) recommending natural bioremediation to address the residual impacts to soil in the landfill. In 2003, Merck submitted a revised CMS consisting of a Sampling and Analysis Plan (SAP) to Investigate Intrinsic Biodegradation at the Old Landfill, and field work related to the SAP was conducted. In 2016, additional field work was performed under a further revised and EPA-approved SAP, and in May 2016, Permittee submitted a SAP Implementation Report to EPA. The May 2016 SAP Implementation Report, as amended by the Permittee in January and March 2017 in light of comments issued by EPA: i) demonstrated that toluene and other contaminants linked to the Old Landfill were not present in excess of EPA's health-based criteria; and ii) contained a recommendation that no further investigation or corrective measures be required. Groundwater monitoring data also indicated no impact to groundwater from toluene or other contaminants associated with the Landfill.

By letter dated May 18, 2017, EPA tentatively approved the SAP Implementation Report, and by letter dated March 16, 2018, EPA tentatively determined that additional groundwater monitoring is not required for the Old Landfill, and that groundwater wells formerly used to monitor the areas around the Old and Secure Landfills may be taken out of service pursuant to an approved closure plan. These EPA tentative determinations, and a proposed closure plan for the former groundwater wells, are subject to public notice and comment as part of the proposed renewal of this permit.

## **V. COORDINATION WITH THE COMMONWEALTH OF PUERTO RICO**

The Commonwealth of Puerto Rico is not presently authorized for the RCRA hazardous waste permitting or corrective action programs. However, in implementing the requirements of this permit, the Permittee must comply with all applicable Commonwealth statutes and regulations.

## **VI. PUBLIC PARTICIPATION**

EPA hereby gives notice of its tentative determination to issue a draft Permit renewal to StarLink subject to public notice and comment, approve the completion of certain remedial measures for the Old Landfill, and approve a closure plan for groundwater monitoring wells. The forty-five (45) day public comment period begins as of the date of this Notice, on **October 18, 2019** and will extend through **December 1, 2019**. A public availability session will be held on **October 30, 2019** at 6:00 PM in Centro Comunal Barrio Magueyes, Carr. 140 intersection with Carr 664, Km. 0, Barrio Magueyes, Barceloneta, Puerto Rico.

A public availability session differs from, and does not constitute, a public hearing under 40 C.F.R. ' 124.12. The purpose of the public availability session is to share information and discuss issues, not make decisions. Comments made during the public availability session will not become part of the official administrative record, as they would during a public hearing

EPA is using the administrative procedures set forth in 40 C.F.R. Part 124 to solicit public comments prior to making its final permit issuance decision(s) for the StarLink facility. Any person may submit written comments on EPA's tentative decision to issue the draft Permit renewal to StarLink. In making this decision(s), EPA will evaluate all written and electronic comments it receives during the public comment period, as well as comments made during a public hearing if one is held. Relevant information and comments received through this process will be considered in the development of the final permit.

Any person may also request in writing that a public hearing be held on this matter in accordance with 40 C.F.R. ' 124.12. The request for a public hearing must state the issues proposed to be raised at such hearing. Both written comments and requests for a hearing must be postmarked no later than **December 1, 2019**, which is forty-five (45) days from the date of this notice, and be addressed to:

Carmen R. Guerrero-Pérez, Director  
U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073

The Statement of Basis, Public Notice, and the Draft Permit, with all supporting data and documents, including those related to EPA's tentative determinations to approve the Old Landfill SAP Implementation Report, the cessation of groundwater monitoring at the Landfills' parcel and the proposed closure plan for the groundwater monitoring wells, will be available for public review at the following locations:

Biblioteca Municipal de Barceloneta  
Biblioteca Comunitaria Sixto Escobar  
Avenida Escobar Num. 1  
Barceloneta, Puerto Rico. 00617  
Phone: (787) 846-7056

U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza II  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073  
Contact: Angel Salgado (787) 977-5854 or [salgado.angel@epa.gov](mailto:salgado.angel@epa.gov)

Environmental Quality Board  
Land Pollution Control Area  
Hazardous Waste Permit Division  
Ponce de Leon Avenue #1308  
Carr Estatal 8838  
Sector El Cinco  
Rio Piedras, PR 00926  
Contact: Gerardo Santiago (787) 767-8181 x3457 or [gerardosantiago@jca.pr.gov](mailto:gerardosantiago@jca.pr.gov)

Upon review of comments submitted during the comment period, EPA will provide responses in a responsiveness summary accompanying the final permit decision. Within thirty (30) days of EPA's final decision, any person who submitted public comments, or who made a statement at a public hearing, may petition the Environmental Appeals Board to review the decision based on comments he or she submitted. Persons who did not submit comments or participate in the public hearing on the draft Permit renewal may only appeal new changes made in the final permit renewal approved by EPA. See 40 C.F.R. ' 124.19.

For additional details about EPA's permitting process, please consult the regulations set forth in 40 C.F.R. Parts 124 and 270.

The permit and relevant documents are also available at:

EPA website: <https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-merial-barceloneta-llc-barceloneta-puerto-rico>

For additional information about this permit renewal issuance decision, please contact Angel Salgado, Project Manager, EPA Response and Remediation Branch, at (787) 977-5854 or email: [Salgado.angel@epa.gov](mailto:Salgado.angel@epa.gov).



## NOTIFICACION PUBLICA

### **La Agencia Federal de Protección Ambiental se propone emitir la renovación de un Permiso para el Manejo de Desperdicios Peligrosos a la Instalación *StarLink Logistics Inc.* ubicada en Barceloneta, Puerto Rico, así como Aprobar la Terminación de Ciertas Actividades de Acción Correctiva y un Plan de Cierre para los Pozos de Monitoreo de Aguas Subterráneas**

La Agencia Federal de Protección Ambiental (EPA, por sus siglas en inglés) está notificando sobre su determinación tentativa de emitir la renovación del permiso bajo la Ley de Recuperación y Conservación de Recursos ("RCRA", por sus siglas en inglés) para el manejo de desperdicios peligrosos a la instalación *StarLink Logistics Inc. (StarLink)* ubicada en la Carretera Estatal PR#2 Km. 56.7 Interior, Bo. Trinidad, Barceloneta, Puerto Rico (EPA ID Number PRD090028101), así como aprobar ciertas actividades de acción correctiva que han sido completadas en la mencionada facilidad.

El permiso aquí propuesto representa la renovación de un permiso previamente emitido por la EPA en Julio de 2006 (*Permiso 2006*) a la instalación conocida anteriormente como *Merck Sharp & Dohme Química de Puerto Rico, Inc. (MSDQ)*, también denominada aquí como *Instalación Original*) en estos mismos predios, para regular sus actividades de formulación, manufactura y empaque farmacéutico. En noviembre de 2010, debido a una reestructuración corporativa, las operaciones de MSDQ en esta instalación fueron transferidas a una nueva entidad corporativa bajo el nombre *MSD International, GmbH (Puerto Rico Branch) LLC (MSD International)*.

En el 2014, MSD International suspendió toda actividad de manufactura de ingredientes activos en la *Instalación Original*, continuando sólo sus operaciones de formulación y empaque farmacéutico. En aquel momento, los cambios operacionales conllevaron el cierre o suspensión de operaciones en las unidades de manejo de desperdicios peligrosos ("HWMUs", por sus siglas en inglés) en la *Instalación Original*.

En el 2014, durante el período de vigencia del Permiso 2006, tanto la titularidad como la operación de la *Instalación Original* fueron transferidas a *Merial Barceloneta, LLC (Merial)*. El 26 de agosto de 2015, a petición de Merial and MSD International, EPA aprobó la transferencia del Permiso 2006 a Merial como la nueva y única entidad permitida ("Permittee", en inglés).

En 2016, la propiedad inmueble ("real property", en inglés) en la que la *Instalación Original* estaba ubicada fue segregada en dos parcelas o solares identificadas como *Parcela Oeste y*

*Parcela Este*. Merial retuvo la titularidad y operación de la Parcela Oeste de la *Instalación Original* (denominada la *Propiedad de Merial*) y le transfirió la titularidad y operación de la Parcela Este de la *Instalación Original* a StarLink Logistics Inc. (*Propiedad de StarLink*). En respuesta a una solicitud de modificación de permiso radicada por Merial y StarLink el 6 de marzo de 2017, EPA aprobó una modificación al Permiso 2006 añadiendo a StarLink como entidad co-permitida con Merial en el permiso de la *Instalación Original*.

Las actividades de manufactura, así como todas las unidades de manejo de desperdicios peligrosos o HWMUs, excepto dos unidades de disposición en terreno o rellenos sanitarios, estaban localizadas en la Parcela Oeste de la *Instalación Original*. Las unidades o HWMUs fueron cerradas conforme a un plan de cierre aprobado por EPA. Mediante carta fechada el 27 de marzo de 2017, EPA aprobó el Informe Final Certificando el Cierre de las unidades o HWMUs ubicadas en la Parcela Oeste de la *Instalación Original*.

Dos unidades de disposición en terreno utilizados por la *Instalación Original* están ubicadas en la Parcela Este. La unidad conocida como Relleno Sanitario Antigüo (*Old Landfill*, en inglés), fue una unidad de manejo de desperdicios sólidos (*SWMU*, por sus siglas en inglés); una segunda unidad, conocida como Relleno Sanitario Seguro (*Secure Landfill*, en inglés), fue una unidad HWMU regulada que fue cerrada de acuerdo con los requisitos RCRA. Con respecto al *Old Landfill*, EPA aprobó tentativamente mediante carta fechada 18 de mayo de 2017 el Informe de Implementación del Plan de Muestreo y Análisis para el *Old Landfill* (“SAP Implementation Report”, en inglés) radicado por Merial y StarLink en mayo de 2016, y subsecuentemente revisado el 13 de enero y el 8 de marzo de 2017. Además, mediante carta fechada el 16 de marzo de 2018, EPA determinó tentativamente no requerir monitoreo adicional de aguas subterráneas para el *Old Landfill*, y permitir que los pozos de monitoreo de aguas subterráneas ubicados en las inmediaciones del *Old* y *Secure Landfills* sean sacados de servicio y cerrados de acuerdo con el plan de cierre aprobado por EPA. Las determinaciones tentativas de EPA aquí especificadas, así como el plan propuesto para el cierre de los pozos de monitoreo de aguas subterráneas, están sujetos a notificación pública y a los comentarios que EPA reciba del público subsecuentemente.

Mediante esta notificación, EPA está dando a conocer públicamente su determinación tentativa de emitir un Permiso únicamente aplicable a la Parcela Este de la *Instalación Original*, de la cual StarLink es titular y operador. De aprobarse y emitirse el borrador de Permiso aquí reseñado, la participación de Merial como entidad co-permitida quedaría terminada, y el nuevo Permiso sería emitido a nombre de StarLink como única entidad permitida. StarLink sería responsable de poner en vigor todos los términos del Permiso final, incluyendo la implantación de cualquier acción correctiva relacionada con actividades llevadas a cabo en la *Instalación Original*.

El borrador de Permiso aquí referido consiste de tres módulos o secciones. El Módulo I establece las Condiciones Estándar del Permiso; el Módulo II recoge las Condiciones Generales de la Instalación; y el Módulo III provee los Requisitos de Acciones Correctivas. Para detalles específicos de estos módulos, favor de referirse a la Hoja Resumen de Declaración de Base para la Decisión (“Statement of Basis”, en inglés), a la cual se hace referencia más adelante en esta notificación y el cual se hará disponible al público para evaluación. Una vez finalizado, este Permiso tendrá una vigencia de diez (10) años a partir de su fecha de efectividad.

Esta notificación informa al público sobre la determinación tentativa de EPA de proceder con la renovación de este borrador de Permiso a StarLink sujeto al cumplimiento con los requisitos de notificación pública y evaluación de comentarios del público sobre esta determinación. El período de comentario público para esta acción de permiso propuesta comenzará a partir de la fecha de emisión de esta notificación y se extenderá por cuarenta y cinco (45) días calendario.

Cualquier persona puede someter comentarios por escrito acerca de la determinación tentativa de EPA de emitir la renovación del borrador de Permiso a StarLink, así como solicitar por escrito que se lleve a cabo una vista pública sobre esta acción de permiso de acuerdo con las disposiciones de la Sección 40 C.F.R. ' 124.12. La solicitud de una vista pública debe especificar los asuntos propuestos a ser discutidos durante la vista. Todo comentario escrito del público, así como cualquier solicitud de una vista pública, debe ser recibido no más tarde del **1 de diciembre de 2019**, es decir, cuarenta y cinco (45) días a partir de la fecha de emisión de esta notificación, y enviado a la siguiente dirección postal:

Carmen R. Guerrero-Pérez, Director  
U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073

El matasellos postal (“postmark”, en inglés) se utilizará para determinar si la fecha de los comentarios escritos está dentro del término de cuarenta y cinco (45) días establecido para someter comentarios públicos sobre esta acción de permiso.

La Hoja Resumen de Declaración de Base para la Decisión, la notificación pública, el borrador del Permiso, así como cualquier otra información y documentación relacionada a esta acción de permiso, incluyendo las determinaciones tentativas de EPA de aprobar el Informe de Implementación del Plan de Muestreo y Análisis para el *Old Landfill* (“SAP Implementation Report”, en inglés), la suspensión del monitoreo de aguas subterráneas en el *Old Landfill*, y el

plan de cierre para los pozos de monitoreo de aguas subterráneas ubicados en las inmediaciones del *Old y Secure Landfills*, estarán disponibles para evaluación por el público de lunes a viernes entre 9:00 AM y 4:00 PM (excepto días feriados) en las siguientes localidades:

Biblioteca Municipal de Barceloneta  
Biblioteca Comunitaria Sixto Escobar  
Avenida Escobar Num. 1  
Barceloneta, Puerto Rico. 00617  
Phone: (787) 846-7056

U.S. Environmental Protection Agency, Region 2  
Caribbean Environmental Protection Division  
City View Plaza II  
#48 Carr. 165 Suite 7000  
Guaynabo, Puerto Rico 00968-8073  
Contact: Angel Salgado (787) 977-5854 or [salgado.angel@epa.gov](mailto:salgado.angel@epa.gov)

Environmental Quality Board  
Land Pollution Control Area  
Hazardous Waste Permit Division  
Ponce de Leon Avenue #1308  
Carr Estatal 8838  
Sector El Cinco  
Rio Piedras, PR 00926  
Contact: Gerardo Santiago (787) 767-8181 x3457 or [gerardosantiago@jca.pr.gov](mailto:gerardosantiago@jca.pr.gov)

Estos documentos también estarán disponibles a través de la página web de EPA en el siguiente enlace: <https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-merial-barceloneta-llc-barceloneta-puerto-rico>

La EPA llevará a cabo una sesión de información al público sobre la renovación del Permiso en borrador de StarLink, así como sobre las determinaciones tentativas de aprobación referidas anteriormente. Una sesión de información al público es diferente a, y no constituye, una vista pública según estipulado bajo la Sección 40 C.F.R. ' 124.12. El propósito de una sesión de información al público es proveer información y discutir asuntos, no es para tomar decisiones. Los comentarios recibidos durante la sesión de información al público no pasan a formar parte del expediente administrativo oficial de la acción de permiso propuesta como ocurriría si fuera una vista pública. Para esta acción de permiso, la EPA se propone llevar a cabo una sesión de

información al público el **30 de octubre de 2019** a las 6:00 PM en el Centro Comunal Barrio Magueyes, Carr. 140 intersección con Carr 664, Km. 0, Barrio Magueyes, Municipio de Barceloneta.

EPA evaluará cuidadosamente cualquier comentario recibido dentro del período de comentario público especificado anteriormente y proveerá respuestas según corresponda mediante un Memorial de Respuestas y Aclaraciones (“Responsiveness Summary”, en inglés) que acompañará la decisión final sobre el Permiso de StarLink. Una vez emitida la decisión final de EPA sobre este Permiso, cualquier persona que haya sometido comentarios públicos, o haya hecho planteamientos en una vista pública, de esta llevarse a cabo, tendrá treinta (30) días calendario para solicitar una revisión de la decisión a la Junta de Apelaciones Ambientales (“Environmental Appeals Board”, en inglés) basada en los comentarios sometidos. Aquellas personas que no hayan sometido comentarios sobre la renovación del Permiso en borrador de StarLink o hecho planteamientos durante una vista pública, sólo podrían apelar nuevos cambios introducidos a la aprobación emitida por EPA de la renovación del Permiso en borrador de StarLink. Favor referirse a la Sección 40 C.F.R. ' 124.19.

Para detalles reglamentarios adicionales sobre el proceso de permisos de la EPA, puede consultar la Sección 40 C.F.R. Partes 124 y 270.



PERMIT

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**RCRA Hazardous Waste Corrective Action Permit**

**StarLink Logistics Inc. Facility (Formerly the Merial/StarLink Facility)**

**EPA ID No. PRD090028101**

## **BACKGROUND: DESCRIPTION OF THE FACILITY AND RCRA PERMIT**

This Permit represents the renewal of a permit previously issued in July 2006 (the “2006 Permit”) to Merck Sharp & Dohme Química de Puerto Rico, Inc. (“MSDQ”) with respect to MSDQ’s pharmaceutical formulation, manufacturing, and packaging facility (the “Original Facility”) located at Bo. Trinidad State Road #2 KM, 56.7 Interior, Barceloneta, Puerto Rico. In November 2010, due to a corporate restructuring, MSDQ’s operations of the facility were transferred, and the facility’s name was changed, to MSD International, GmbH (Puerto Rico Branch) LLC (MSD International).

In or about 2014, MSD International suspended all manufacturing of active ingredients at the Original Facility, continuing only its pharmaceutical formulation and packaging operations. At and leading up to this time, these changes in operations resulted in the shutdown or suspension of operation of the Original Facility’s hazardous waste management units (“HWMUs”).

In 2014, during the term of the 2006 Permit, ownership and operation of the Original Facility passed to Merial Barceloneta, LLC (“Merial”). On August 26, 2015, upon request of Merial and MSD International, EPA approved the transfer of the 2006 Permit to Merial as the new Permittee.

In 2016, the real property on which the Original Facility was situated was subdivided into two portions, identified as the western and eastern portions, both of which are zoned for industrial usage. Merial retained ownership and operation of the western portion of the Original Facility (the “Merial owned property”) and transferred the ownership and operation of the eastern portion of the Original Facility to StarLink Logistics Inc. (“StarLink” and “StarLink owned property”). Upon application of Merial and StarLink, on March 6, 2017, EPA approved a modification to the 2006 Permit that added StarLink as a co-permittee, along with Merial, for the Original Facility.

Manufacturing activities and all of the HWMUs, with the exception of two landfill units, were located on the western portion of the Original Facility. These HWMUs units were closed pursuant to EPA approved closure plans and, by letter dated March 27, 2017, EPA approved the Final Certification Report for Closure for the HWMUs located on the western portion of the Original Facility.

The Old Landfill, a solid waste management unit (“SWMU”) and the Secure Landfill, both of which are RCRA-closed for an industrial site, are located on the eastern portion of the Original Facility. The Secure Landfill was closed in 1994 pursuant to EPA’s oversight and approval. With respect to the Old Landfill, by letter dated May 18, 2017, EPA tentatively approved the Old Landfill Sampling and Analysis Plan (SAP) Implementation Report filed by Merial and StarLink in May 2016, as revised on January 13 and March 8, 2017. Additionally, by letter dated March 16, 2018, EPA tentatively determined that additional groundwater monitoring will not be required for the Old Landfill, and that groundwater wells used to monitor the areas around the Old and Secure Landfills may be taken out of service pursuant to an approved closure plan. Through this Permit, EPA is finalizing its approval of the Old Landfill SAP Implementation Report, its determination that no further groundwater monitoring is required and its approval of a closure plan to obturate (seal) groundwater wells formerly used to monitor the Old and Secure Landfills.

Upon application of Merial and StarLink and in recognition of the foregoing history, EPA issues this renewed Permit applicable solely to the subdivided eastern portion of the Original Facility, now owned and operated by StarLink (hereafter referred to as the "StarLink Facility" or "Facility"). Further, Merial's status as co permittee is hereby terminated, and the Permit is hereby transferred to StarLink as sole permittee (hereinafter, "Permittee"). StarLink shall be responsible for implementing all terms of this Permit, including implementing any off-site corrective action related to activities at the Original Facility. Merial and StarLink have an agreement granting StarLink and/or subsequent Permittees and their consultants and/or representatives, as well as EPA, EQB and/or any successor agencies (and their representatives) access rights to property currently owned by Merial to perform and/or oversee corrective action on the Merial property pursuant to the terms of this Permit. This "corrective action access agreement" benefits any future owners of the StarLink real property and is binding upon successors in title to the real property underlying the Merial owned property.

The StarLink Facility is currently inaccessible by public roads; Merial, however, in connection with the subdivision, granted StarLink and regulatory authorities the right to access the area by way of the Merial owned property until such time as a roadway is available linking a public road to the Old Landfill area. This "temporary use easement" is part of the Deed of Conveyance granting the eastern portion of the Original Facility to StarLink; it benefits any future owners of that real property and is binding upon successors in title to the real property underlying the Merial owned property. The address of the StarLink Facility will remain at Bo. Trinidad State Road #2, KM 56.7 Interior, Barceloneta, Puerto Rico until the StarLink Facility can be accessed via a new road from Route PR-666, at which time the StarLink Facility will obtain a new street address from the appropriate Puerto Rico authority. (StarLink has represented to EPA that it is actively pursuing construction of a public road to the Starlink Facility.)

The corrective action access agreement and temporary use easement have been merged into a single Access Agreement signed by Merial and StarLink, which is attached to this Permit. The Access Agreement has been filed in real estate records as part of the Deed of Second Amendment to the Deed of Conveyance<sup>1</sup> for recordation upon entry by the local Registry of Property.

This Permit consists of three modules. Module I sets forth Standard Conditions, Module II General Facility Conditions, and Module III Corrective Action requirements. Among other things, the corrective action requirements include: the final remedy for the Old Landfill, which consist of both engineering and institutional controls such as inspection requirements and filing the notices referenced above in the property real estate records; and require the facility to investigate, and perform any necessary corrective measures for, newly identified solid waste management units, areas of concern or releases of hazardous waste or constituents on or from the StarLink Facility or the Original Facility.

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<sup>1</sup> Because this Access Agreement amends the temporary use easement in the Deed of Conveyance, it is identified as the Second Amendment to the Access Agreement in the Deed of Second Amendment to Deed of Conveyance.

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**ATTACHMENTS**

**Attachment 1: Site Location Map for the Permitted StarLink Facility**

**Attachment 2: Layout Diagram and Boundaries of the Permitted StarLink Facility**

**Attachment 3: Site Map and Boundaries for the Original Facility**

**Attachment 4: Deed Number 4 Including Access Agreement between Boehringer and StarLink Logistics**

**Attachment 5: Requirements for Corrective Action Work Plans**

**Attachment 6: Site Inspection Log Form**

**Attachment 7: Updated Part A Permit Application**

**Attachment 8: Closure Plan for Groundwater Monitoring Wells**

## **I. MODULE I - STANDARD CONDITIONS**

### **A. Effect of Permit**

1. This Permit requires StarLink Logistics Inc. ("StarLink" or "Permittee") to conduct corrective action in accordance with the conditions of this Permit at or related to Permittee's Facility located at PR-2 KM 56.7 Interior, Barceloneta, Puerto Rico ("StarLink Facility" or "Facility"). (The Facility's address will be changed once a road providing access to the StarLink Facility from Route PR-666 is completed.) This permit does not authorize any other hazardous waste management activities. Subject to 40 C.F.R. §270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. Permittee shall also comply with any then applicable regulations not identified in this permit if and when any additional work is required pursuant to Module III of this Permit.
2. The issuance of this Permit does not convey any property rights of any sort, or any exclusive privilege; nor does it authorize any injury to persons or property, or invasion of other private rights, or any infringement of the laws of the Commonwealth of Puerto Rico (hereafter referred to as the "Commonwealth") or local laws or regulations.
3. Compliance with the terms of this Permit does not constitute a defense to any action brought under Sections 3013, 3008(h) and/or Section 7003 of RCRA, 42 U.S.C. §6934, §6928(h) and/or §6973; Sections 104, 106(a), 107 and/or 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9604, §9606(a), §9607 and/or §9622, or any other law and applicable regulations governing protection of public health or the environment, other than those excepted by 40 C.F.R. §270.4.

### **B. Permit Actions**

This Permit may be modified, revoked and reissued, or terminated as specified in 40 C.F.R. §270.41, §270.42 and §270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of Permittee does not stay any condition of this Permit. (40 C.F.R. §270.30(f)). Review of any application for a Permit renewal shall involve consideration of improvements in the state of control and measurement technology, as well as changes in applicable regulations. [Section 3005(c)(3) of RCRA, 42 U.S.C. §6925(c)(3)]

### **C. Permit Conditions**

Pursuant to Section 3005(c)(3) of RCRA, 42 U.S.C. §6925(c)(3), promulgated as regulation at 40 C.F.R. §270.32(b), this Permit contains those terms and conditions the Administrator determines necessary to protect human health and the environment. If not otherwise specified in this permit, all Permit Conditions set forth in Subpart C of 40 C.F.R. Part 270 are hereby incorporated into this Permit by reference.

### **D. Permit Submittals**

1. Effect of Permit. All plans, reports and schedules required by the terms of this Permit are, unless otherwise specified, upon approval by EPA, incorporated by reference into this Permit. Upon

incorporation, the provisions of each such document shall be binding upon the Permittee and have the same legal force and effect as the requirements of this Permit. Any non-compliance with such approved plans, reports, and/or schedules shall constitute a violation of the Permit.

2. Submittal Modification. The Permittee shall submit plans and reports required by this Permit to EPA for review and comment. Unless otherwise specified, EPA shall review any plan, report, specification, or scheduled submitted pursuant to, or required by this Permit, and provide its written approval/disapproval, comments and/or modifications to the Permittee. Unless otherwise specified by EPA, the Permittee shall submit a revised proposal within thirty (30) days of its receipt of EPA's written comments and/or modifications. The Permittee may request an extension in writing within 15 days after receipt of EPA's comments and/or modifications. EPA shall grant or deny any such request for an extension. Any such revised proposal submitted by the Permittee shall incorporate EPA's comments and/or modifications. EPA will then, at its discretion, either: provide Permittee with additional comments; or approve the revised proposal or modify the proposal and approve it with any such modifications. The revised proposal, as approved by EPA, shall become final. All final approvals shall be given to the Permittee in writing.

#### **E. Severability**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is stayed or held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

#### **F. Duties and Requirements**

1. Duty to Comply. The Permittee shall comply with all conditions of this Permit, except that the Permittee need not comply with the conditions of this Permit to the extent and for the duration such noncompliance is authorized by an emergency permit. [40 C.F.R. §270.61]. Any noncompliance with this Permit, except under the terms of an emergency permit, constitutes a violation of the Permit and is grounds for: 1) enforcement action; 2) permit termination, revocation and reissuance, or modification; and/or 3) denial of a permit renewal application. [40 C.F.R. §270.30(a)]
2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days before this Permit expires, unless the Director grants permission for a later date, which date shall not be later than the expiration date of the existing Permit. [40 C.F.R. §270.10(h) and §270.30(b)]
3. Permit Expiration and Continuation. Unless modified pursuant to Condition J of this Module, this Permit will be in effect for a fixed term not to exceed ten (10) years. As set forth in 40 C.F.R. §270.51, as long as EPA is the Permit issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date if the Permittee has submitted a timely, complete application pursuant to the provisions set forth in Subpart B (Permit Application) of 40 C.F.R. Part 270 and through no fault of the Permittee, the Director (as defined in Condition I.L. below) has not issued a new Permit pursuant to 40 C.F.R. §124.15.

4. If the Commonwealth, at the time of permit renewal, has an authorized hazardous waste program and permitting authority under 40 C.F.R. Part 271 and if the Permittee has submitted a timely and complete application under Commonwealth law and regulations, the terms and conditions of this EPA issued Permit shall continue in force beyond the expiration date of this Permit, but only until the effective date of the Commonwealth's issuance or denial of a Commonwealth Permit. [40 C.F.R. §270.51(d)]
5. Agreement with Local Authorities. If the Permittee manages hazardous waste, the Permittee must make arrangements with police, fire departments and emergency response teams to familiarize these organizations with the Facility and potential need for services of these organizations within 30 days of managing hazardous waste. The Permittee must provide the Director of evidence of these arrangements including any documentation of any refusal of the local authorities to enter into arrangement with the Permittee, within 45 days of its management of hazardous waste.
6. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 C.F.R. §270.30(c)]
7. Duty to Mitigate. In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. [40 C.F.R. §270.30(d)]
8. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate sampling, laboratory and process controls, including appropriate quality assurance/quality control (QA/QC) procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the Permit. [40 C.F.R. §270.30(e)]
9. Duty to Provide Information. The Permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. [40 C.F.R. §270.30(h) and §264.74(a)]
10. Inspection and Entry. The Permittee shall allow the Director or an authorized representative(s) of EPA and/or the Puerto Rico Environmental Quality Board (EQB) or successor agencies, upon the presentation of credentials and other documents as may be required by law, to:
  - a. Enter at reasonable times upon the Permittee's premises;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA as amended, any substances or parameters at any location. [40 C.F.R. §270.30(i)]
- e. Nothing herein limits authorized representatives of EPA, EQB and/or successor agencies from inspection and entry of the Facility to the extent otherwise authorized by law.

#### 11. Monitoring and Records

- a. **Representativeness of Samples and Measurements.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 C.F.R. §270.30(j)(1)]. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 C.F.R. Part 261 or an equivalent sampling method approved by the Director. [40 C.F.R. §261.20(c)]. Unless otherwise approved by the Director, laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods (SW-846), Update VI or as currently amended), and Standard Methods for the Chemical Analysis of Water and Waste Water, (APHA, as currently amended); or an equivalent method approved by EPA. [40 C.F.R. §270.6]
- b. **Retention of Records.** The Permittee shall retain all records and data used to complete the application for this Permit for no less than three years from the effective date of this permit. The Permittee shall also retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, and the certification required by 40 C.F.R. §264.73(b)(9) for a period of no less than three years from the date of the sample, measurements, report, or certification.
- c. **Groundwater Monitoring.** If, at any time, groundwater monitoring is required pursuant to Module III of this permit, the Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevation for a minimum of three years after completion of the monitoring. These time periods may be extended or otherwise modified by request of the Director and are automatically extended during the course of any unresolved enforcement action.
- d. **Content of Monitoring Records.** Records of monitoring information shall include all of the requirements set forth in 40 C.F.R. §270.30(j)(3) including but not limited to:
  - i. The date(s), exact place, and time of sampling or measurements;
  - ii. The individual(s) who performed the sampling or measurements;
  - iii. The date(s) analyses were performed;
  - iv. The individual(s) who performed the analyses;

- v. The analytical techniques or methods used; and
  - vi. The results of such analyses.
- e. **Quality Assurance Program.** If groundwater monitoring is required pursuant to Module III, the Permittee shall implement a quality assurance program to ensure that the monitoring data are technically accurate and statistically valid. The quality assurance program shall be in accordance with the most current version of the EPA-approved Quality Assurance Project Plan, Section 10 of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (EPA Publication SW 846, Update VI, or as currently amended), and with the requirements of EPA's most current statement of work for the National Contract Laboratory Program, and EPA Region 2's CERCLA Quality Assurance Manual as currently amended), and the most current Standard Operating Procedure, Functional Guidelines for Evaluating Organics Analyses, and the most current Standard Operating Procedure, Evaluation of Metals Data for the Contract Laboratory Program, or an EPA approved quality waste analysis plan.
- f. **Monitoring Reports.** Monitoring results per the above sections must be reported at the intervals specified elsewhere in this Permit. [40 C.F.R. §270.30(1)(4)]
12. **Reporting Planned Changes.** The Permittee shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the StarLink Facility. [40 C.F.R. §270.30(1)(1)]
13. **Anticipated Noncompliance.** The Permittee shall give advanced notice to the Director of any planned changes in the StarLink Facility or activity which may result in noncompliance with this Permit's requirements. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. [40 C.F.R. §270.30(1)(2)]
14. **Transfer of Permit.** This Permit is not transferable to any person or corporation unless notice has been given to the Director and the Permit has been modified, or revoked and reissued, or a modification made to identify the new Permittee and to incorporate such other requirements as may be necessary. [40 C.F.R. §270.30(1)(3) and §270.40]
15. **Compliance Schedules.** Unless otherwise specified in this Permit, reports of compliance or non-compliance with any compliance schedule shall be submitted no later than fourteen (14) days following each scheduled date.
16. **Immediate Reporting of Releases**
- a. Whenever there is an imminent or actual emergency situation, the Permittee must immediately:
    - i. activate internal Facility alarms or communication systems, where applicable, to notify all Facility personnel; and
    - ii. notify appropriate Commonwealth or local agencies with designated response roles if their help is needed. [40 C.F.R. §264.56(a)(1) and (2)]

- b. If the Permittee determines that the Facility has had a release, fire, or explosion which could threaten human health or the environment outside the Facility, its findings must be reported as follows:
- i. If the assessment indicates that evacuation of local areas may be advisable, the Facility must immediately notify appropriate local authorities. The appropriate Facility representative(s) must be available to help the appropriate officials decide whether local areas should be evacuated; and
  - ii. The Facility must immediately notify the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800.424.8802). The report must include:
    1. Name and telephone number of reporter;
    2. Name and address of Facility;
    3. Time and type of incident (e.g., release, fire);
    4. Name and quantity of material(s) involved, to the extent known;
    5. The extent of injuries, if any; and
    6. The possible hazards to human health or the environment, outside the Facility. [40 C.F.R. §264.56]

17. Twenty-Four Hour Reporting

- a. The Permittee shall report to the Director any noncompliance with this permit which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
- i. information concerning the release of any hazardous waste or hazardous constituent which may cause an endangerment to public drinking water supply sources;
  - ii. any information of a release or discharge of hazardous waste, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility;
- b. The description of the occurrence and its cause, as reported pursuant to subparagraph 16. a.ii immediately above, shall include:
- i. Name, address and telephone number of the owner or operator;
  - ii. Name, address, and telephone number of the Facility;
  - iii. Date, time, and type of incident;

- iv. Name and quantity of material(s) involved;
  - v. The extent of injuries, if any;
  - vi. An assessment of actual or potential hazards to the environment and human health outside the Facility, where this is applicable; and
  - vii. Estimated quantity and disposition of recovered material that resulted from the incident. [40 C.F.R. §270.30(l)(6)]
- c. A written submission shall also be provided to the Director within five (5) calendar days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee need not comply with the five-day written notice requirement if the Director waives that requirement and the Permittee submits a written report within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. [40 C.F.R. §270.30(l)(6)(iii)]
18. The oral reports required above may be made by contacting the 24-hour National Response Center at 800.424.8802, the EPA Region 2 Emergency Response Center at 212.637.4040 (during normal working hours only), and EPA Region 2 Caribbean Environmental Protection Division (CEPD) at (787) 977-5865.
19. Un-manifested Waste Report. [Not Applicable]
20. Manifest Discrepancy Report. To the extent applicable, if a significant discrepancy [as defined by 40 C.F.R. §264.72(b)] in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If not resolved within 15 calendar days, the Permittee must submit a letter report to the Director detailing the discrepancy and attempts to resolve it. The report must include a copy of the manifest and must meet the information requirements of 40 C.F.R. §264.72.
21. Biennial Report. To the extent applicable, the Permittee shall prepare and submit a biennial report covering the Facility's activities. This report shall be submitted by March 1 of each even numbered calendar year. The biennial report must be submitted on EPA form 8700-13B, as currently amended. The report must cover Facility activities during the previous two calendar years and must include all *applicable* information required by 40 C.F.R. §264.75 and 40 C.F.R. §270.30(l)(9). This report is not necessary if the Facility is not managing hazardous waste nor conducting corrective action pursuant to Module III for newly discovered releases or contamination.
22. Additional Noncompliance Reporting. The Permittee shall report all instances of noncompliance (including release of hazardous waste, fire, or explosion) not required to be reported under Permit Conditions I.F.16 and I.F.17. Such noncompliance shall be reported for each calendar quarter (*i.e.*, January through March and each subsequent quarter) by no later than 30 days after

the end of the quarter. The reports shall contain the information listed in Permit Condition I.F.16(b), and all other relevant information. [40 C.F.R. §270.30(l)(10)]

23. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a permit application, or in any report to the Regional Administrator or the Director, the Permittee shall promptly submit such facts or information to the Director. [40 C.F.R. §270.30(l)(11)]

### **G. Signatory Requirement**

All applications, reports or other information submitted to the Regional Administrator or the Director shall be signed and certified as required by 40 C.F.R. §§270.11 and 270.30(k).

### **H. Confidential Information**

The Permittee may claim confidential any information required to be submitted by this permit in accordance with 40 C.F.R. §270.12 and 40 C.F.R. Part 2, Subpart B.

### **I. Documents to be Maintained**

Pursuant to this Permit, Permittee must maintain certain documents and records. The Permittee shall maintain all documents and records at the Facility. Alternatively, because the Facility is no longer an operating hazardous waste facility, subject to EPA's discretion, the Permittee may maintain documents related to the Facility at an alternative location approved by EPA. Permittee shall make all records available to EPA and/or EQB or successor agencies upon request and during site inspections. EPA reserves the right to direct Permittee to move, store and maintain all records at the Facility rather than at any previously approved alternative location, or to another location approved by EPA.

In addition to a copy of this Permit and any amendments, revisions, or modifications to the Permit and its attachments, the following information must be recorded, as it becomes available, and maintained in the operating record for a minimum of three years unless otherwise noted:

1. A copy of the Inspection Plan for Old Landfill for the duration of this Permit.
2. Records and Results of Facility Inspections.
3. All sampling data and other documentation related to newly discovered releases or contamination at, or related to, the Facility until such contamination is remediated, as approved by EPA.
4. Any reports or records that must be maintained according to this permit including those items referenced in Module I. F.11 and Module II.F.
5. All documents related to the Final Certification Report for RCRA Closure filed in January 2017 and the Old Landfill Sampling and Analysis Plan (SAP) Implementation Report filed by Merial and StarLink in May 2016, as revised on January 13 and March 8, 2017.

## J. Permit Modifications

The Permit may be modified as allowed under 40 C.F.R. §270.41 and §270.42. Modifications to this Permit may be made by the Director for cause in accordance with 40 C.F.R. §270.41. Modifications to the Permit may also be requested by the Permittee as is provided for in 40 C.F.R. §270.42.

## K. Reports, Notifications and Submittals to EPA

1. All reports, notifications or other submittals required by this Permit are to be submitted to the Director and sent certified mail or hand delivered to:

Director  
U.S. Environmental Protection Agency  
Caribbean Environmental Protection Division  
City View Plaza II  
#48 Carr. 165 Suite 7000  
Guaynabo, P.R. 00968-8073

The Director at the time of permit issuance is Carmen R. Guerrero-Pérez.

President  
Puerto Rico Environmental Quality Board (EQB)\*  
P.O. Box 11488  
San Juan, P.R. 00910

\*Submittals should be sent to any agency that succeeds EQB. Permittee will be provided with the name and address of any such agencies.

## L. Definitions

For the purpose of this Permit, terms used herein shall have the same meaning as those set forth in 40 C.F.R. Parts 260 through 270, unless this Permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. Area of Concern (AOC). Pursuant to the authority granted by Section 30005(c)(3) of RCRA and 40 C.F.R. §271.32(b)(2), an area of concern is hereby defined for purposes of this Permit to mean an area at the Facility, or an area off-site impacted by migration of contamination from the Facility, where hazardous waste hazardous constituents and/or solid waste are present or are suspected to be present as a result of a release from the Facility. The term shall include area(s) of potential or suspected contamination as well as actual contamination. Such area(s) may require investigation and a determination of what, if any, corrective action may be necessary based on investigation results that show a potential or actual threat to human health and the environment.
2. CMS. CMS means Corrective Measures Study

3. Director. The Director of the Caribbean Environmental Protection Division (CEPD), United States Environmental Protection Agency, Region 2, or the delegee, designee, authorized representative, or successor to such Director.
4. EPA. The United States Environmental Protection Agency, Region 2.
5. Facility. For purposes of this Permit, facility means all contiguous land and structures, other appurtenances, and improvements on the land, used in the past or present for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them). The definition for facility set forth in 40 C.F.R. §260.10 is also incorporated by reference.
6. Hazardous Constituents. For purposes of this Permit means all constituents listed in Appendix VIII to 40 C.F.R. Part 261, Appendix IX of 40 C.F.R. Part 264 and/or which fall under the hazardous constituent definition set forth in 40 C.F.R. §260.10.
7. Hazardous waste. For purposes of this Permit means a hazardous waste as defined in 40 C.F.R. §261.3 of this chapter and/or Section 1004 of RCRA.
8. HSWA. HSWA means the 1984 Hazardous and Solid Waste Amendments to RCRA
9. Original Facility. Original Facility means the facility, as the term facility is defined above, that was subject to the 2006 RCRA Permit located at PR-2 KM 56.7 Interior, Barceloneta, Puerto Rico. In 2016, the real property on which the Original Facility was situated was subdivided into eastern and western portions, both of which remained subject to the 2006 Permit. The physical boundaries of the Original Facility are depicted in Permit Attachment 2.
10. Regional Administrator. For purposes of this Permit is the Regional Administrator of the United States Environmental Protection Agency for Region 2, his/her designee or authorized representative.
11. RFA. RFA means RCRA Facility Assessment
12. RFI. RFI means RCRA Facility Investigation
13. Release. For purposes of this Permit includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituent, unless expressly authorized under the terms of this Permit.
14. StarLink Facility. StarLink Facility means the current permitted facility, as the term facility is defined above, which is owned and operated by StarLink. Prior to the issuance of this RCRA Hazardous Waste Corrective Action Permit, the real property on which the StarLink Facility is situated constituted the eastern portion of the Original Facility. The physical boundaries of the StarLink Facility are depicted in Permit Attachment 2.
15. Solid Waste Management Unit (SWMU). A SWMU includes, but is not limited to, any waste management unit from which hazardous constituents have migrated or may migrate, irrespective of whether the unit was intended for the management of hazardous or solid wastes (as those

terms are defined in Sections 1004(5) and (27) of RCRA, 42 U.S.C. §6903(5) and (27) and the regulations promulgated pursuant to RCRA, 40 C.F.R. §§261.2 and 261.3). These units include, but are not limited to: landfills, surface impoundments, waste piles, land treatment units, tanks, elementary neutralization units, transfer stations, container storage areas, incinerators, injection wells, recycling units, and closed and abandoned units. Any area, including those associated with the production process that has become contaminated as a result of routine and systematic releases of hazardous or nonhazardous waste, or hazardous constituents, may also be considered a SWMU.

#### **M. Dispute Resolution**

1. The Permittee shall use its best effort in good faith to resolve informally all disputes or differences of opinion, which may arise in connection with this permit. Such informal dispute resolution may include meeting with EPA staff, written submissions of information or relevant arguments and other oral or written exchange of views between Permittee and EPA staff.
2. If disputes arise which cannot be resolved informally as described in (1), immediately above, the procedures set forth in this subparagraph shall be followed by the Permittee in formally obtaining resolution. The Permittee shall notify the Director in writing of any such dispute(s). Within thirty (30) calendar days of such notification, the Permittee shall have the right to submit a written statement to the Director, which shall set forth the Permittee's specific points of contention, the Permittee's argument and evidence, and any additional material that the Permittee considers necessary or relevant for a proper determination of the matter. Effort to resolve the dispute(s) informally may continue between the Permittee and EPA staff subsequent to the Permittee's written submission to the Director. If the dispute(s) cannot be resolved informally within sixty (60) calendar days of the receipt of Permittee's written submission to the Director, the Director will provide Permittee a final decision in writing on the dispute(s), which decision shall set forth the Director's reasons for the decision. The Director's decision shall be the resolution of the dispute(s), shall be incorporated into the Permit, and shall be implemented by the Permittee.
3. For purposes of this paragraph (Module I.M.) the term "Director" shall mean only the Director or anyone formally acting in the Director's absence.
4. EPA may extend the schedule for performing any elements of work materially affected by the good faith invocation of the dispute resolution process pursuant to this paragraph. Such extensions shall be granted in writing by the Director.

## II. MODULE II - GENERAL FACILITY CONDITIONS

### A. Design and Operation of Facility

1. This Permit requires StarLink Logistics Inc. ("StarLink" or "Permittee") to conduct corrective action in accordance with the conditions of this Permit at, from or related to Permittee's Facility. This permit does not authorize any other hazardous waste management activities.
2. The Permittee shall maintain and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
3. The Permittee is not allowed to receive hazardous waste from any off-site source(s).

### B. General Waste Analysis

1. If new releases or contamination are found which requires Permittee to perform a waste analysis, Permittee shall develop and submit a Waste Analysis Plan (WAP) for EPA approval, and shall comply with the approved Plan, which shall automatically be incorporated into this Permit. The quality assurance program will be in accordance with current EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Update VI or as currently amended, and the data validation procedures as established by the Director) or equivalent methods approved by the Director, and at a minimum, ensure that the Permittee maintains properly functioning instruments, uses approved sampling and analytical methods, as specified in 40 C.F.R. Part 261, Appendices I, II and III, assures the validity of sampling and analytical procedures, and performs correct calculations.
2. At a minimum, the waste analysis plan must include the following:
  - a. The parameters to be analyzed for each hazardous waste, and the rationale for the selection of these parameters, as required by 40 C.F.R. §264.13(b)(1);
  - b. The test methods which will be used to test for these parameters, as required by 40 C.F.R. §264.13(b)(2);
  - c. The sampling method(s) which will be used to obtain a representative sample of the waste to be analyzed, as required by 40 C.F.R. §264.13(b)(3); and
  - d. The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date, as required by 40 C.F.R. §264.13(b)(4).
3. The Permittee shall comply with the land disposal restriction provisions of 40 C.F.R. Part 268, as amended.
4. The Permittee shall comply fully with the EPA approved Waste Analysis Plan, prepared pursuant to Paragraphs 1 and 2 above, and the provisions set forth in 40 C.F.R. § 264.13 including:

- a. The Permittee shall maintain records that provide a detailed chemical and physical analysis of a representative sample of each waste. At a minimum, the analysis shall contain all the information which must be known to treat, store, or dispose of the waste pursuant to 40 C.F.R. Parts 124, 261, 262, 264, 268, and 270.
- b. The Permittee shall repeat any waste analysis as necessary to ensure that it is accurate and up to date. At a minimum, an analysis shall be repeated when the Permittee is notified, or has reason to believe, that a process or operation generating a hazardous waste has changed, unless the change will not result in a change in the chemical or physical makeup of the relevant waste material.
- c. The Permittee shall keep a copy of the Waste Analysis Plan with the Facility records.

### **C. Security**

The Permittee shall:

1. Provide a 24-hour surveillance system which continuously monitors and controls entry onto the of the Facility; or
2. Provide the following controls:
  - a. An artificial or natural barrier which completely surrounds the Facility; and
  - b. A means to control entry, at all times, through the gates or other entrances to the Facility.
3. The Permittee shall post and maintain a warning sign with the legend, "Unauthorized Personnel Keep Out," at each entrance to the Facility, and at other locations, in sufficient numbers to be seen from any approach to the Facility. The legend must be written in both English and Spanish and be legible from a distance of at least 25 feet. Existing signs, at the time of permit issuance, with a different legend may be used only if the legend on the sign indicates in both English and Spanish that only authorized personnel are allowed to enter the Facility.

### **D. General Inspection Requirements**

1. The Permittee shall, at a minimum, perform an annual inspection of the Old Landfill to ensure the integrity of the landfill's cap and the security fence and signage. Inspections must be conducted by a licensed engineer and meet all applicable requirements set forth in 40 C.F.R. § 264.15. Extreme weather events or other unusual situations may warrant the performance of additional inspections. A copy of the inspection log form is provided as Attachment 6 to this Permit. Permittee must repair any damage to or deterioration of the inspected structures pursuant to Module III.
2. EPA may require bi-annual or more frequent inspections if it determines annual inspections are not sufficient.

### **E. Manifest System**

1. The Permittee shall not accept any hazardous waste from an off-site source or generator.

2. Whenever a shipment of hazardous waste is shipped/transported from the Facility, the Facility must comply with the requirements of 40 C.F.R. Part 262.

#### F. Record Keeping and Reporting

1. Operating Record. The Permittee shall maintain a written operating record with the Facility's records in accordance with the applicable portions of 40 C.F.R. §264.73.
2. Availability, Retention, and Disposition of Records. All records, including plans, must be made available to EPA in accordance with 40 C.F.R. §264.74(a). The retention period for all records is extended automatically during any unresolved enforcement action regarding the Facility or as requested by the Director, as required by 40 C.F.R. §264.74(b). A copy of records of waste disposal locations and quantities under 40 C.F.R. §264.73(b)(2) must be submitted to the Director and filed as part of a land deed for recordation at entry by the local land authority upon closure of the Facility as required by 40 C.F.R. §264.74(c).
3. Biennial Report. To the extent the Permittee is required to submit a biennial report pursuant to Module I, Paragraph 21 of this Permit, it shall meet the requirements of 40 C.F.R. §264.75, by March 1 of each even numbered year.
4. Un-manifested Waste Report. [NOT APPLICABLE]
5. Inspection Reports: Inspection Reports shall be submitted to EPA annually pursuant to Module III.G.1.a. of this Permit.
6. Recordation of Access Agreement by Registry of Property: Permittee shall notify EPA of the recordation of the Deed of Second Amendment to Deed of Conveyance by the Registry of Property within ten days of such recordation.

#### G. Financial Assurance

1. Closure, Post Closure Care and Corrective Action Financial Assurance. Permittee must maintain financial assurance for any closure, post closure care and/or corrective action work performed pursuant to Module III of this Permit, including for the Old Landfill. (See Module III.I.3) Financial assurance must meet all applicable requirements set forth in 40 C.F.R. Part 264; Subpart H and Module III of this Permit.
2. Liability Financial Assurance.
  - a. As of the effective date of this Permit, liability financial assurance is not required pursuant to 40 C.F.R. § 264.147.
  - b. Permittee shall obtain liability financial assurance pursuant to 40 C.F.R. § 264.147 if corrective action activities at the site trigger this requirement after the effective date of this Permit.

## **H. Unit Specific Requirements**

Permittee does not have hazardous waste tanks, containers nor equipment subject to 40 C.F.R. Part 264; Subparts I, J, AA, BB or CC at its Facility. If this changes, the Permit must be modified before use of these units would be allowed, subject to exemptions set forth in 40 C.F.R. Part 262.

## **I. Closure Plan Implementation – Old Landfill Groundwater Monitoring Wells**

1. Permittee must close the groundwater wells pursuant to the approved Groundwater Monitoring Well Closure Plan set forth in Attachment 8.
2. Permittee shall submit a Closure Plan Implementation Report to EPA for its review and approval within thirty (30) days of completing closure or by an alternative date approved by EPA.

## **J. Compliance with Applicable Hazardous Waste Regulations**

To the extent not specifically referenced in this Permit, Permittee shall comply with all applicable EPA hazardous waste regulations and/or any future EPA authorized Commonwealth hazardous waste regulations, including any modifications to all such regulations.

### III. MODULE III – CORRECTIVE ACTION

#### A. Statutory and Regulatory Framework and Summary of Corrective Action Process

1. Statutes and Regulations. Section 3004(u) of RCRA (42 U.S.C. § 6924(u)) and regulations codified at 40 C.F.R. § 264.101 provide that all permits issued after November 8, 1984 must require corrective action for all releases of hazardous waste or hazardous constituents from any SWMU regardless of when waste was placed in the unit. Section 3004(v) of RCRA (42 U.S.C. § 6924(v)) and 40 C.F.R. 264.101(c) require that corrective action be taken beyond the facility boundary where necessary to protect human health and the environment, unless the permittee demonstrates to the satisfaction of the Administrator that, despite its best efforts, the permittee was unable to obtain the necessary permission to undertake such action. The permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. Pursuant to Section 3005(c) of RCRA, 42 U.S.C. § 6925(c), and its corresponding regulations published in 40 C.F.R. §270.32 (b)(2), the Director may impose terms and conditions as the Director determines necessary to protect human health and the environment.

Areas of Concern (“AOCs”) which are identified pursuant to Section 3005(c)(3) of RCRA, 42 U.S.C. §6925(c)(3), and its corresponding regulation set forth at 40 C.F.R. § 270.32 (b)(2), may also be subject to corrective action pursuant to this module and the process described below.

Assurances of financial responsibility for corrective action must be provided.

2. Summary of Corrective Action Process. The corrective action implementation process consists of a RCRA Facility Assessment (“RFA”), and if necessary, a RCRA Facility Investigation (“RFI”) phase, a Corrective Measures Study (“CMS”) phase, and a Corrective Measures Implementation (“CMI”) phase. The requirements for each of the corrective action phases are set forth in Attachment 5 to this Permit. Permittee, unless otherwise directed by EPA, must adhere to the requirements set forth in this Attachment when implementing corrective action pursuant to this Module.

#### B. Corrective Action Requirements

##### 1. Applicability

- a. The corrective action requirements of this Module apply to:

- i. SWMU #1, which is also known as the Old Landfill. The Old Landfill is an industrial and sanitary waste landfill where facility wastes were disposed of from 1971 until 1981. After receiving its last wastes in 1981, the Old Landfill was capped with four feet of silty clay. It now has a vegetated soil cover.

This unit has been extensively investigated. A RCRA Facility Investigation (RFI) was conducted in 1989. The RFI Report indicated that landfill soils contained levels of toluene in excess of health-based criteria. In 1990, Merck submitted a Corrective Measures Study (CMS) recommending natural bioremediation to address the residual impacts to soil in the landfill. In 2003, a Merck submitted a revised CMS consisting of a Sampling and Analysis Plan (SAP) to Investigate

Intrinsic Biodegradation at the Old Landfill, and field work related to the SAP was conducted. In 2016, additional field work was performed under a further revised and EPA-approved SAP. The resulting May 2016 SAP Implementation Report: i) demonstrated that toluene and other contaminants were not present in excess of EPA's health-based criteria; and ii) contained a recommendation that no further investigation or corrective measures be required. Groundwater monitoring data also indicated no impact to groundwater from toluene or other contaminants associated with the Landfill.

In May 2017, EPA conditionally approved the SAP Implementation Report and in March 2018 determined, based on prior monitoring data, that no further groundwater monitoring is necessary for the Old Landfill. These tentative determinations have been approved with the issuance of this Permit.

Permittee must comply with the conditions/measures set forth in Module G of this Permit for the Old Landfill which include but are not limited to maintaining the landfill cap, securing the area with fencing and appropriate signage, and maintenance of financial assurance for these corrective measures. See Section G of this Module.

- ii. Any newly identified SWMUs, areas of concern, or releases at or from the StarLink Facility or the Original Facility which are discovered during the course of field investigations, environmental audits, or other means.

### **C. Assessment of Newly Identified SWMUS, Areas of Concern, or Releases**

1. The Permittee shall notify the Director, in writing, of any additional SWMUs, areas of concern or releases which are discovered in accordance with Condition III.B.ii above within 15 days of discovery.
2. Within sixty (60) days of written notification from the Director, the Permittee shall prepare an assessment plan with a proposed schedule of implementation and completion for any newly identified SWMU, area of concern or release. The plan shall include methods and specific actions as necessary to determine whether a prior or continuing release of hazardous waste and/or hazardous constituents has occurred or is occurring at each SWMU or area of concern. The plan must also include, at a minimum, the following information for each unit:
  - a. Type of unit or description of area of concern;
  - b. Location of each unit, area of concern or release on a topographic map of appropriate scale;
  - c. Dimensions and capacities of each unit/area of concern;
  - d. Function of unit;
  - e. Dates that the unit was operated in its various capacities, if necessary;

- f. Description of the wastes that were placed in the unit or any other relevant information known about the unit/area of concern; and
  - g. Description of any known releases or spills into the environment (include type of hazardous waste and/or hazardous constituents released, ground water data, soil analyses, and/or surface water data).
3. The Permittee shall report to the Director any imminent or existing hazard to public health or the environment from the present or past release of hazardous constituents from the newly identified SWMU(s), area(s) of concern or release(s) in accordance with the requirements of Conditions I. F.16 – F.18 of this Permit.

**D. RCRA Facility Investigation (RFI) for Newly Identified SWMUs, Areas of Concern, or Releases**

1. RFI Workplan. Within ninety (90) days after completion of the assessment of newly discovered or identified SWMUs, areas of concern or releases pursuant to Condition III.C of this Module, the Permittee shall prepare and submit to the Director a RFI Workplan which includes schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases indicated by the assessment, and the potential pathways of contaminant releases to the environment. The Permittee must provide adequate documentation that a release has not occurred and is not likely to occur if a newly identified or discovered SWMU, area of concern or release is not included in this RFI Workplan.
2. Scope of Work in RFI Workplan. The RFI Workplan required by Condition D.1 above shall at a minimum, unless otherwise directed by EPA, address the requirements of the Scope of Work for an RFI provided in Attachment 5. The Permittee shall specifically mention and provide written justification for any omissions in, or deviation from, the minimum requirements of the before-mentioned Scope of Work. EPA will review the RFI Workplan and provide comments and/or modifications to be incorporated into the RFI Workplan. The Permittee may request a meeting with EPA to discuss EPA's comments within 30 days of receipt of EPA's comments. Permittee shall submit a revised Workplan within 60 days of receipt of EPA's comments, or within 60 days of a meeting if a meeting is timely requested, or pursuant to an alternative time schedule approved by EPA.
3. RFI Workplan Implementation. Within 60 calendar days of receiving written notification of EPA approving the RFI Workplan, Permittee shall begin implementation of the implementation of the RFI according to the schedules specified in the RFI Workplan. The RFI shall be conducted in accordance with the approved RFI Workplan
4. Previously Submitted Information. If any items required by this section or by a Scope of Work have previously been submitted or completed, it shall be so stated in the RFI Workplan. For these items, the RFI Workplan shall include the following information:
  - a. A description of the items previously submitted and/or a summary of the previously completed investigations;
  - b. The date(s) of submission and/or completion; and

- c. Any known changes or new information developed since the previous submissions and/or completion.

EPA will determine the extent to which prior submissions and/or completions satisfy specific items required by this Permit and reserves the right to require the re-submittal of any prior submissions. EPA will notify the Permittee, in writing, if the prior submittals and/or completed items are not satisfactory.

5. Submittal of Plans and Reports. The results of all plans and reports shall be submitted in accordance with a schedule approved by EPA. Extensions of the due date for submittals may be granted by the Director based on the Permittee's demonstration that sufficient justification for the extension exists.
6. Progress Reports. The Permittee shall provide the Director with signed progress reports in accordance with the approved RFI Workplan and schedule.
7. RFI Report. Within sixty (60) days after the completion of the RFI conducted pursuant to Condition III.D, the Permittee shall submit a RCRA Facility Investigation Report to the Director. The RCRA Facility Investigation Report shall be developed in draft form for EPA review. The RFI Report shall be prepared in accordance with the applicable specifications contained in the Scope of Work set forth in Attachment 5. EPA will review the draft RFI Report and provide comments and/or modifications to be incorporated into the RFI Report. The Permittee may request a meeting with EPA to discuss EPA's comments within 30 days of receipt of EPA's comments. Permittee shall submit a revised Report in final form within 60 days of receipt of EPA's comments, or within 60 days of a meeting if a meeting is timely requested.
8. Review of Final RFI Report. The Director shall review the final RFI report conducted and notify the Permittee of the need for further investigative actions and/or the potential need for corrective measures as required under Section 3004 of RCRA, as amended (42 U.S.C. § 6924), and 40 C.F.R. § 264.101.

**E. Corrective Measures Study and Implementation for Newly Identified SWMUs, Areas of Concern, or Releases**

1. Corrective Measures Study and Selection. Upon EPA's determination that corrective action is needed for newly identified SWMUs, areas of concern or releases pursuant to Condition III.D above, the Permittee shall submit to the Director, for approval, a proposed Corrective Measures Study. The proposed Corrective Measures Study must include an evaluation and recommendation of corrective action alternatives using technical, human health and environmental criteria, and media protection standards set by EPA. This must be completed within ninety 90 days or pursuant to an alternative time schedule approved by EPA. EPA will consider a Permittee's preferred corrective measure, other applicable corrective measures (if EPA determines it is appropriate to do so), and, in conformity with then-existing EPA guidance, decide to tentatively approve the preferred remedy, tentatively select a different remedy, or require additional analysis of remedial alternatives. The tentatively selected remedy will undergo public review and comment as a proposed modification to the Permit.
2. Corrective Measures Implementation. Based on the EPA approved selected corrective measure, the Permittee shall submit to the Director, for approval, a proposed Corrective Measures

Implementation (CMI) Plan within ninety (90) days of EPA's selection. The proposed CMI Plan is subject to public notice and comment. Public notice of the CMI plan will occur during the permit modification for remedy selection or during permit modification to incorporate the CMI Plan.

3. Scope of Work. The RCRA Corrective Measures Study and Corrective Measures Implementation Program Plan shall at a minimum, unless otherwise directed by EPA, address the requirements set forth in Attachment 5. The Permittee shall specifically mention and provide written justification for any omissions in, or deviations from the minimum requirements of, this Scope of Work. All submittals are subject to EPA review and/or modification. The Permittee may request a meeting with EPA to discuss EPA's comments within 30 days of receipt of EPA's comments. Permittee shall submit a revised Workplan within 60 days of receipt of EPA's comments or within 60 days of a meeting if a meeting is timely requested, or pursuant to an alternative time schedule approved by EPA.

#### **F. Responsibility for Off-Site Corrective Action and Access Agreement**

1. Pursuant to 40 C.F.R. § 264.101(c), the requirements of Conditions III.C through III.E of this Module shall apply to any newly identified SWMUs, releases or areas of contamination:
  - a. Which result in, or have resulted in, contamination beyond the StarLink Facility boundary; and
  - b. Which have or are likely to have originated:
    - i. From any SWMU, area of concern or release located within the StarLink Facility boundary; or
    - ii. From any SWMU, area of concern or release which was currently or formerly located at the Original Facility and to which a prior iteration of this Permit applied.
2. Permittee must maintain all rights currently in existence granting access to the property currently owned by Merial for the purpose of implementing corrective action necessary to address conditions originating from the StarLink Facility and/or the Original Facility
3. Merial and StarLink have a signed agreement granting StarLink and/or subsequent Permittees and their consultants and/or representatives, as well as EPA, EQB, successor agencies and their representatives: i) access rights to property currently owned by Merial to perform and/or oversee corrective action on the Merial property pursuant to the terms of this Permit; and ii) a temporary use easement to access the StarLink Facility by way of Merial owned property until such time the StarLink Facility is accessible by public road (Access Agreement). The Access Agreement benefits any future owners of the StarLink real property and is binding upon successors in title to the real property underlying the Merial owned property.
4. The Access Agreement has been filed in real estate records as the Second Amendment to the Access Agreement in the Deed of Second Amendment to Deed of Conveyance for recordation upon entry by the local Registry of Property. See Attachment 4. Permittee shall notify EPA of the recordation by the Registry of Property within ten days of such recordation. The Access

Agreement and Deed must be maintained by Permittee pursuant to Condition III.F.2 immediately above.

5. This Permit does not require StarLink to remediate, investigate, or monitor, any releases of hazardous waste or hazardous constituents that occur on or from the property currently owned by Merial as a result of the 2016 subdivision of the Original Facility provided StarLink can demonstrate to EPA's satisfaction that such releases: 1) were not in whole or in part from the StarLink Facility; and 2) occur(ed) after the effective date of this this Permit.

#### **G. Implementation Requirements for Known SWMUs Subject to Corrective Action**

1. SWMU # 1, the Old Landfill. Subject to new information, groundwater monitoring is not required for this unit. The following corrective measures are required:
  - a. Permittee shall maintain the Old Landfill's cap by, at minimum, performing the following:
    - i. Annual inspections by a licensed engineer, except in case of extreme weather events (*i.e.*, after storms) or other situations, including requests by EPA, which may warrant or require the performance of additional inspections;
    - ii. Maintenance repairs as needed;
    - iii. Routine vegetative control on and around the landfill (mowing as needed and application of herbicide along the perimeter security fence);
    - iv. Maintain records of inspection reports, repairs performed, and vegetation and pest control activities (The log inspection form is Attachment 6 to this Permit);
    - v. Submit a copy of each inspection report, including description(s) of any remedial action(s) taken, within thirty days of completion. Submissions must meet the requirements set forth in Module I.G and K of this Permit.
  - b. Permittee shall maintain security as to the Old Landfill pursuant to 40 C.F.R. § 264.14. This shall include inspection of the fencing around the perimeter of the Old Landfill on at least an annual basis, posting of appropriate signage, and maintenance of the fencing and signage as needed.
  - c. Permittee shall comply with the notice requirements set forth in 40 C.F.R. § 264.119(a) and (b), including recording, in accordance with Commonwealth law, a notation in the deed to the StarLink Facility property or in some other instrument which is normally examined during a real estate title search that will, in perpetuity, notify any potential purchaser of the property of the types and concentrations of the waste disposed and remaining in the Old Landfill and that use of the Facility property is currently subject to the restrictions of 40 C.F.R. Part 264, Subpart G.
  - d. Within sixty (60) days of recording, Permittee shall submit a signed certification to the Director indicating it has recorded the notation pursuant to 40 C.F.R § 264.119(b) and provide a copy of the document in which the notation has been placed.

## H. Amendment of RFI, CMS or CMI Plan

1. If, at any time, the Director determines that a RCRA Facility Investigation ("RFI"), Corrective Measures Study ("CMS"), or Corrective Measures Implementation ("CMI") Plan required by this Module, or which have been previously submitted to EPA or performed by the Permittee, no longer satisfy the requirements of Section 3004 of RCRA, as amended (42 U.S.C. § 6924), and 40 C.F.R. § 264.101, or this Permit, for prior or continuing releases of hazardous waste and/or hazardous constituents from SWMUs, the Permittee must submit amended plan(s) to the Director within ninety (90) days of Permittee's receipt of written notice of such determination.

## I. Financial Assurance for Corrective Action

1. Permittee shall comply with the financial assurance requirements for corrective action set forth in 40 C.F.R. § 264.101, Section 3004 of RCRA, as amended (42 U.S.C. § 6924) and this Permit. Upon the effective date of this Permit and within 30 days of the selection of any newly identified corrective measure, unless otherwise directed by EPA, Permittee shall: i) establish financial assurance for corrective action activities required by this Permit; and ii) submit to the Director an updated cost estimate for all such corrective action activities and a demonstration that financial assurance in an amount no less than such cost estimate has been established. Financial assurance mechanisms which Permittee may use are:

- a surety bond unconditionally guaranteeing performance of the corrective action activities required under this Permit or payment at the direction of EPA of such performance costs into a standby trust fund for the benefit of EPA;

- one or more irrevocable letters of credit, payable at the direction of EPA of such performance costs into a standby trust fund for the benefit of EPA;

- a trust fund for the benefit of EPA;

- a written corporate guarantee, by an entity that demonstrates to EPA's satisfaction that it meets the financial test set forth in 40 C.F.R. § 264.143(f), to perform the corrective action activities required by this Permit or establish a trust fund for the benefit of EPA; or

- an insurance policy by a licensed carrier where the insurer shall make payments as EPA directs in writing: (1) to reimburse the Permittee for expenditures made by the Permittee for the corrective action activities; or (2) to pay any other person or entity, including EPA, whom EPA has determined performed or will perform the corrective action activities required under this Permit. The insurance policy must increase annually to cover inflation. The policy must stipulate that the insurer may not cancel, terminate, or fail to renew the policy, unless the Permittee fails to pay the premium, and then only after 120 days' prior written notice sent to the Director by certified mail.

Permittee should refer to 40 C.F.R. Part 264, Subpart H for guidance regarding the acceptable use of the above mechanisms. EPA reserves the right to require modification of the financial assurance instrument(s) submitted (including updated demonstrations submitted pursuant to Condition I.2 immediately below) if EPA finds that Permittee's mechanism(s) do(es) not assure adequate funding or that such funds will not be accessible to EPA, Permittee, or other entity selected by EPA, to complete the corrective action activities deemed necessary and appropriate

by EPA. Such instruments shall remain in force until EPA releases Permittee from the financial assurance obligation in writing, subject to EPA's approval of the completion of the corrective action activity(ies).

2. Cost estimates and financial assurance demonstrations shall be reviewed at least annually and updated as necessary and submitted to EPA as appropriate. At a minimum, the Permittee shall update the cost estimate and the financial assurance demonstration to account for changes in inflation, when requested by EPA, upon the conclusion of the CMS, whenever proposed or selected corrective action plans are modified, or other available information indicates that there may be an increase in the anticipated costs.
3. **Old Landfill:** Permittee must submit a demonstration of financial assurance to EPA for the work identified in Paragraph G.1 of this Module for the Old Landfill within twenty days of the effective date of this Permit, if it has not already been provided. This financial assurance must be maintained and updated as required by EPA, this permit and/or existing RCRA regulations.

#### **J. Access to Financial Assurance**

1. In the event that EPA determines that Permittee has failed to perform approved corrective action, is seriously or repeatedly deficient or late in its performance of corrective action, or is implementing corrective action in a manner that may cause endangerment to human health or the environment, EPA may issue a written notice (Performance Failure Notice) to Permittee.
2. Any Performance Failure Notice issue by EPA (which writing may be electronic), will specify the grounds upon which such a notice was issued and will provide Permittee with a period of 20 days within which to remedy the circumstances giving rise to the issuance of such notice, or such additional time period that EPA may determine reasonable in the existing circumstances.
3. If the Permittee fails to remedy the circumstances giving rise to the Performance Failure Notice to EPA's satisfaction before the expiration of the period to remedy specified in Paragraph J. 2 above, then in accordance with any applicable financial assurance mechanism, EPA is entitled to
  - a. Require that any funds guaranteed by a financial assurance mechanism be deposited into a Standby Trust or newly created trust fund approved by EPA, and
  - b. Permittee shall grant access to the facility site to contractor and/or consultants engaged by the Standby Trust or other EPA approved trust to perform corrective action.
4. Permittee may invoke the procedures for Dispute Resolution set forth in Permit Module I to dispute EPA's determination concerning any circumstances giving rise to EPA's issuance of a Performance Failure Notice specified in Paragraph J. 1. above.

#### **K. Notifications**

1. Notification of Possible Off-Site Groundwater Contamination. If at any time the Permittee discovers that hazardous wastes and/or constituents in groundwater have been released from a SWMU or area of concern at the StarLink Facility, and have migrated, or are migrating, beyond

the StarLink Facility boundary in concentrations that exceed background levels, the Permittee shall:

- a. Within ten (10) calendar days of discovery, provide written notice to EPA of the condition, and implement as required, all requirements given in Conditions III.E. of this Module; and
  - b. If requested by EPA, provide written notice to any person who owns or resides on the land which overlies the contaminated groundwater notifying such persons of the contamination and any other applicable information.
2. Notification of Surface Water Contamination. If at any time the Permittee discovers that hazardous wastes and/or constituents have been released from a SWMU or area of concern at the StarLink Facility to surface waters, and have migrated, or are migrating, to areas beyond the StarLink Facility boundary in concentrations that exceed standards given at 40 C.F.R. §§ 141.61 and 141.62, the Permittee shall:
- a. Within ten (10) calendar days of such discovery, provide written notification to EPA of the condition, and implement, as required, all requirements given in Condition III.E of this Module; and
  - b. If requested by EPA, initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.
3. Notification of Residual Contamination. In addition to the notice to be filed pursuant to Condition G.1.c for the Old Landfill, upon discovery that any hazardous wastes or hazardous constituents in or from SWMUs or areas of concern, or which have been released at or from the StarLink Facility or Original Facility which will remain in or on the land, including groundwater, EPA may require the Permittee to record additional instruments notifying potential purchasers of the remaining contamination. EPA may require such notice as part of the corrective measure(s) selection process.
4. Notification of Air Contamination. If at any time the Permittee discovers that hazardous constituents in the air have been released from a SWMU or AOC at the StarLink Facility and have migrated, or are migrating, to areas beyond the StarLink Facility boundary in concentrations that exceed relevant air standards, and that residences or other places at which continuous, long-term exposure to such constituents might occur are located within such areas, the Permittee shall immediately take measures to protect human health and the environment from such release. The Permittee shall also:
- a. Within ten (10) calendar days of such discovery, provide written notice to EPA; and
  - b. Initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to exposure.

1. The first step in the process is to identify the information that is being requested. This is done by reviewing the request and determining what specific information is being sought.

2. The second step is to determine the source of the information. This is done by reviewing the records and identifying the specific sources that contain the information.

3. The third step is to review the information and determine if it is relevant to the request. This is done by reviewing the information and determining if it contains the information that is being sought.

4. The fourth step is to provide the information to the requester. This is done by providing the information in a format that is accessible to the requester.

5. The fifth step is to provide a response to the requester. This is done by providing a response that explains the results of the search and any actions that were taken.

6. The sixth step is to provide a copy of the records to the requester. This is done by providing a copy of the records in a format that is accessible to the requester.

7. The seventh step is to provide a copy of the records to the requester. This is done by providing a copy of the records in a format that is accessible to the requester.

8. The eighth step is to provide a copy of the records to the requester. This is done by providing a copy of the records in a format that is accessible to the requester.

9. The ninth step is to provide a copy of the records to the requester. This is done by providing a copy of the records in a format that is accessible to the requester.

10. The tenth step is to provide a copy of the records to the requester. This is done by providing a copy of the records in a format that is accessible to the requester.

**PERMIT ATTACHMENTS**

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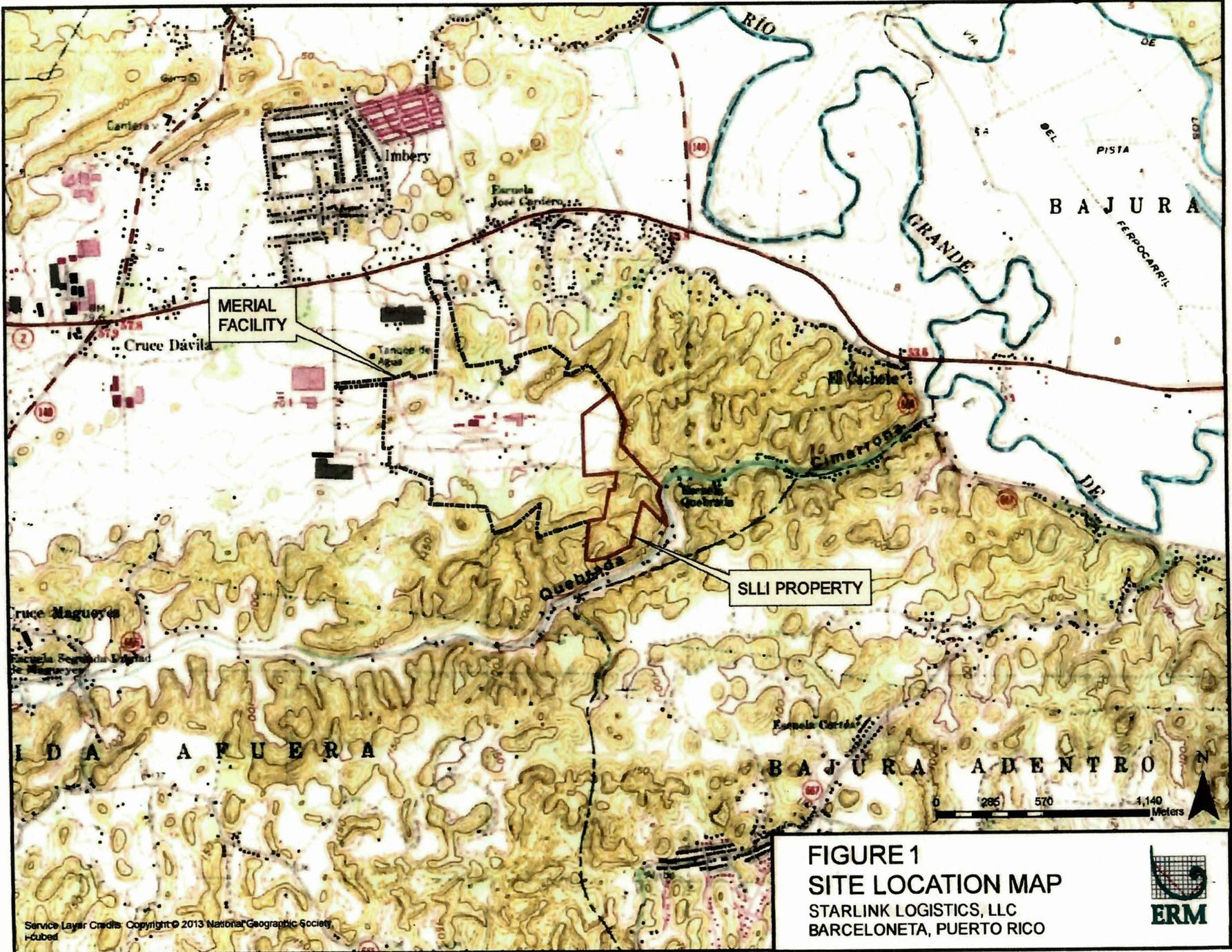
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**ATTACHMENT 1**

**StarLink Logistics Site Location Map**





**FIGURE 1**  
**SITE LOCATION MAP**  
 STARLINK LOGISTICS, LLC  
 BARCELONETA, PUERTO RICO



Service Layer Credits Copyright © 2013 National Geographic Society



THE UNIVERSITY OF CHICAGO  
DIVISION OF THE PHYSICAL SCIENCES  
BIOLOGICAL LABORATORIES  
L1000



**ATTACHMENT 2**

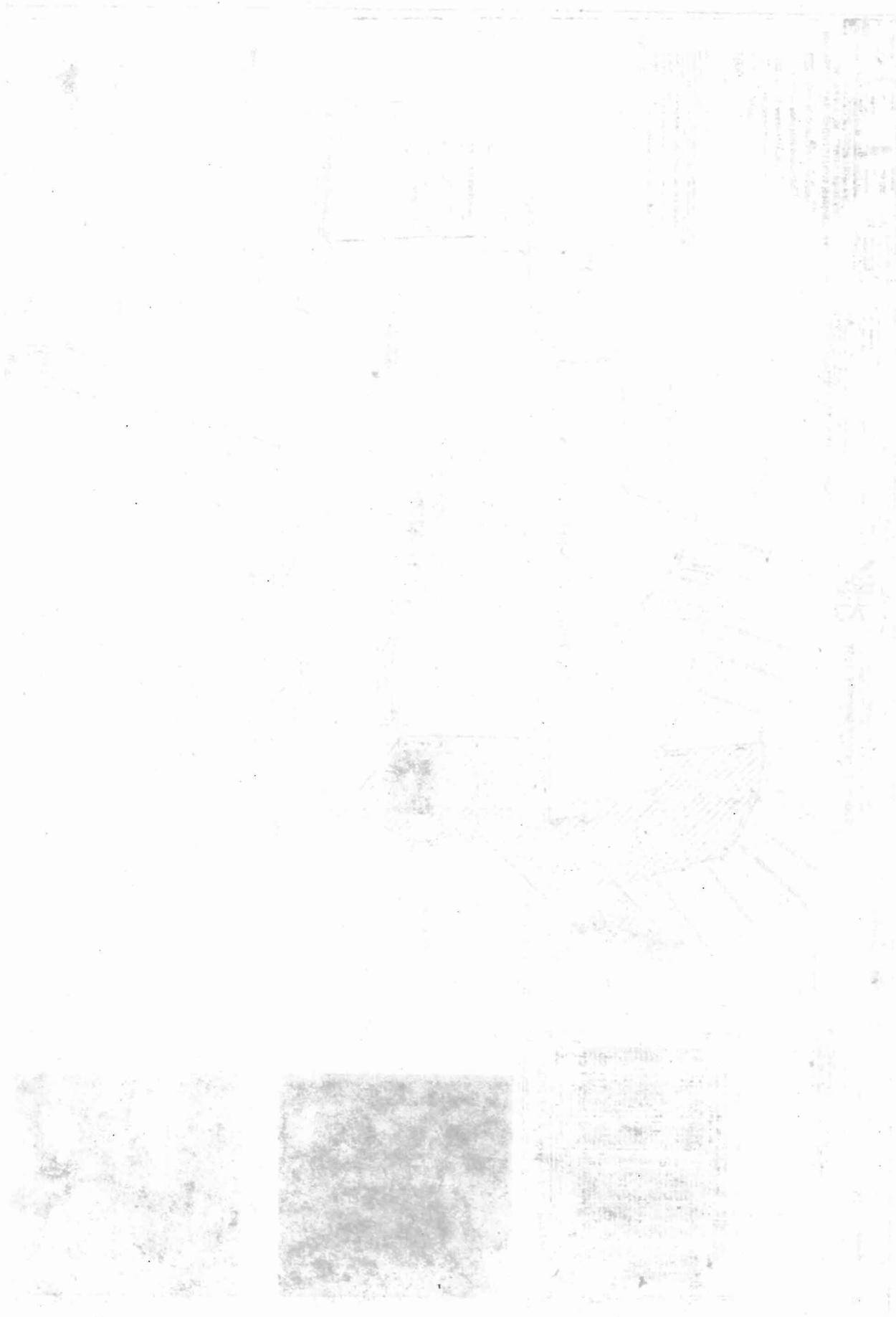
**Layout Diagram and Boundaries of the Permitted StarLink Facility**

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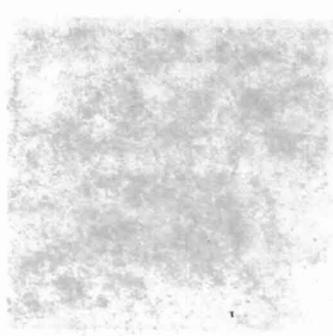
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Technical drawing title block containing text, likely specifications or a title, located in the top right corner of the drawing area.

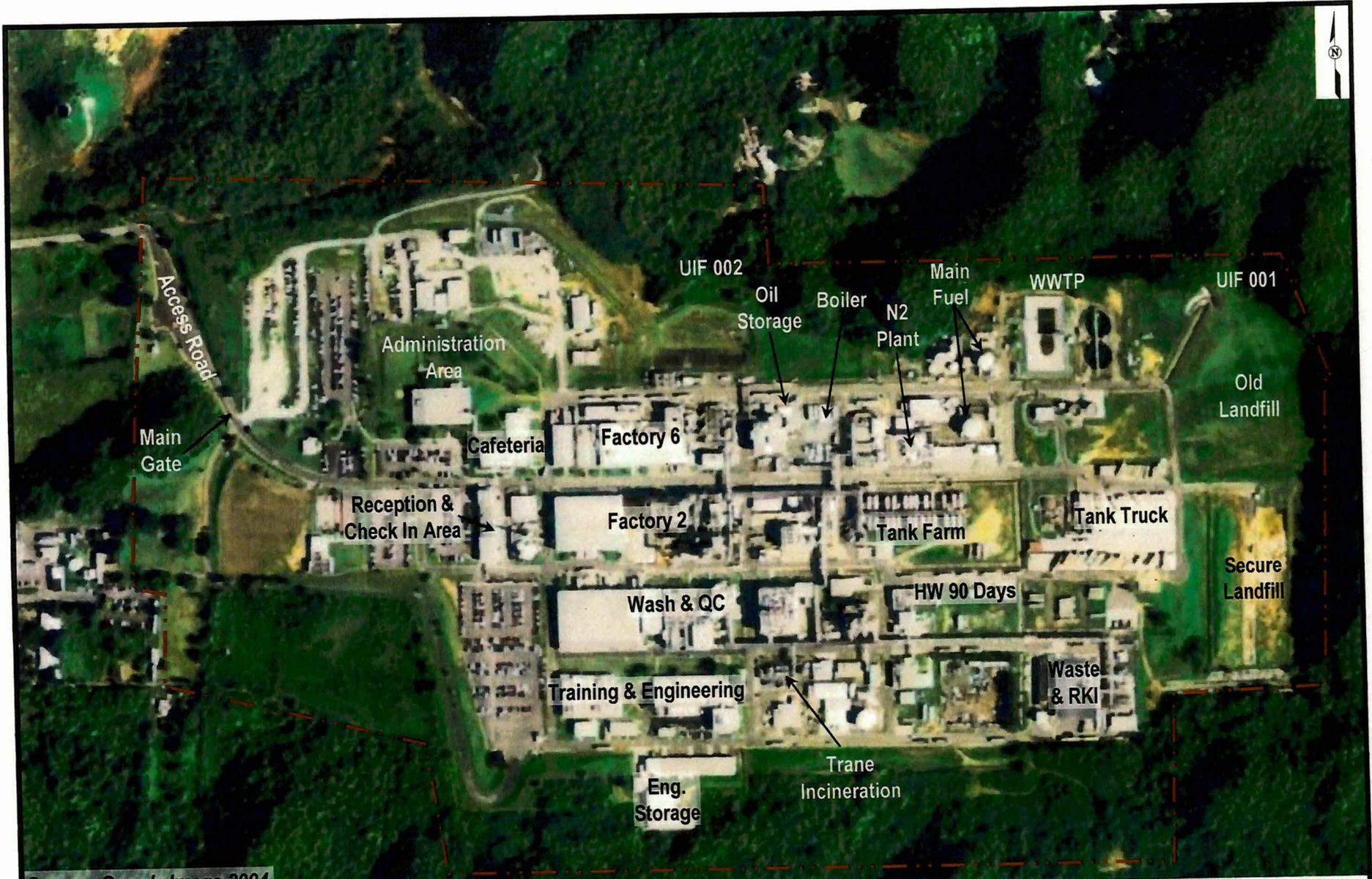


**ATTACHMENT 3**

**Merck Barceloneta Original Facility Layout**

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Source: Google Image 2004



----- Approximate Property Boundary

**SITE LAYOUT MAP**  
**Merck Barceloneta**  
 Carr 2 Km 56.7  
 Barceloneta, PR

ATTACHMENT

**3**





1041-108-01-0000-1000

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1041-108-01-0000-1000

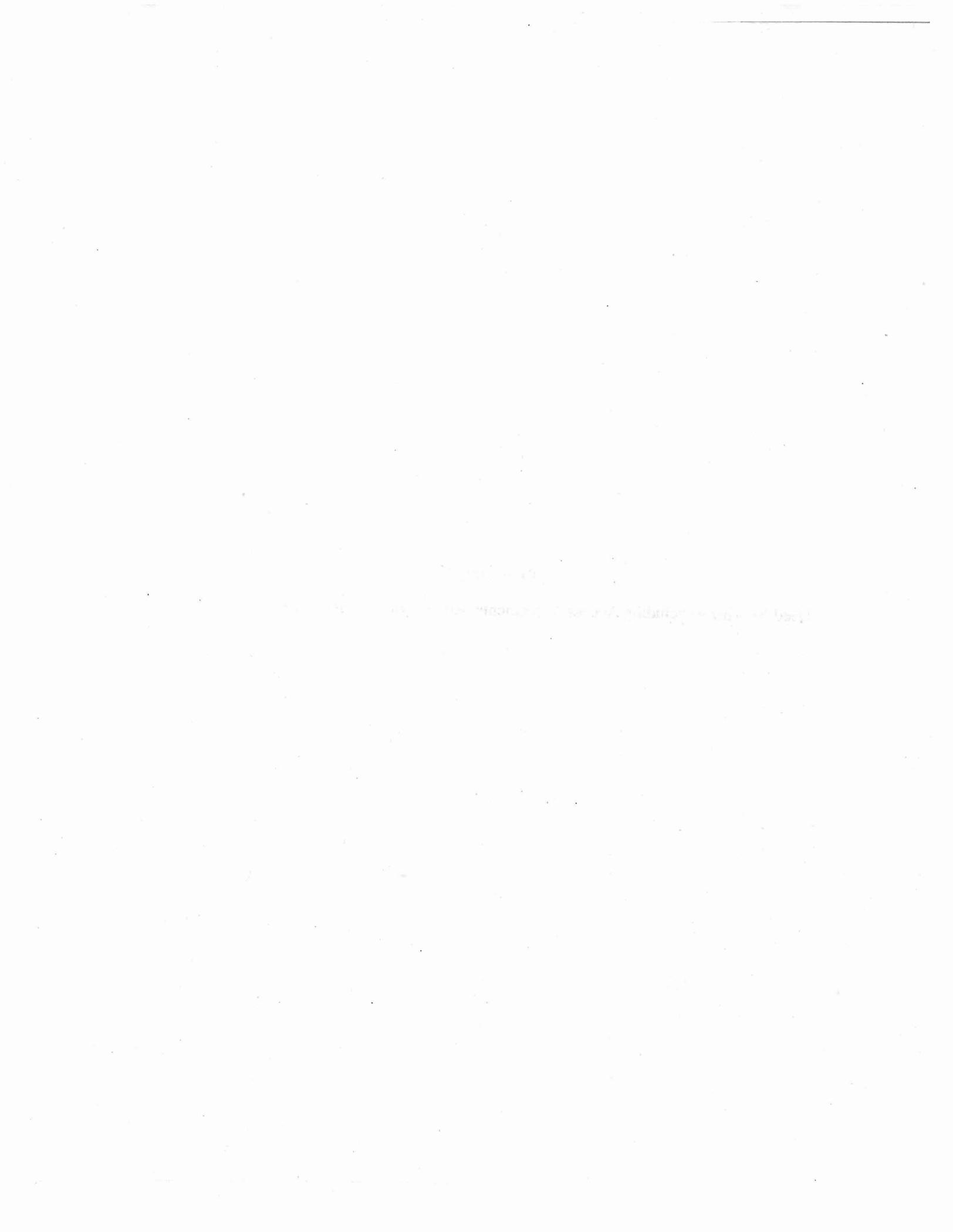
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**ATTACHMENT 4**

**Deed Number 4 including Access Agreements between Boehringer and StarLink Logistics**

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I hereby CERTIFY that on this twenty seventh (27<sup>th</sup>) of August, two thousand and nineteen (2019), I issued the first (1<sup>st</sup>) certified copy of this instrument in favor of Carlos E Serrano Terrón

*[Handwritten Signature]*

ATTEST



*[Handwritten marks: a checkmark, 'enc', and 'V']*



-----  
**NUMBER FOUR (4)**  
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-----  
**DEED OF SECOND AMENDMENT**  
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-----  
---In the City of San Juan, Commonwealth of Puerto Rico, on this twenty seventh (27<sup>th</sup>) day of August, two thousand and nineteen (2019).  
-----

-----  
**BEFORE ME**  
-----

---**CLAUDIA G. MOTTA VELEZ**, Attorney-at-Law and Notary Public in and for the Commonwealth of Puerto Rico, with residence in San Juan, Puerto Rico and offices at Two Hundred and Fifty Five (255) Ponce de Leon Avenue, Tenth (10<sup>th</sup>) Floor, San Juan, Puerto Rico.  
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-----  
**APPEAR**  
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-----  
---AS A PARTY TO THE FIRST PART: **BOEHRINGER INGELHEIM ANIMAL HEALTH PUERTO RICO LLC**, a Puerto Rico limited liability company (formerly "MERIAL BARCELONETA, LLC" and hereinafter referred to as "**BOEHRINGER**"), represented by Edwin Rodriguez, in his capacity as Site Director of BOEHRINGER, of legal age, married, executive and a resident of Toa Baja, Puerto Rico. The authority of the representative to execute this deed on behalf of BOEHRINGER is evidenced by a Statement of Action Taken by Unanimous Written Consent of the Board of Directors of BOEHRINGER dated April twenty four (24), two thousand and nineteen (2019), certified by Notary Public Rachel B. Little, notary public in and for the State of Georgia, duly certified pursuant to a certificate of the Georgia Superior Court, Clerk's Cooperative Authority (Notary and Authentication Division) dated as of April thirtieth (30<sup>th</sup>), two thousand and nineteen, the original of which has been examined by the undersigned notary and shall accompany the original of this Deed. -----

-----  
---AS A PARTY TO THE SECOND PART: **STARLINK LOGISTICS, INC.**, a Delaware corporation (hereinafter referred to as "STARLINK"), represented by Carlos E. Serrano Terrón, in his capacity as agent and Authorized Representative of STARLINK, of legal age, married, attorney and a resident of San Juan, Puerto Rico. The authority of the agent to execute this deed on behalf of STARLINK is evidenced by a certificate of corporate resolution of the Board of Directors of StarLink Logistics Inc., dated March twelve (12), two thousand and nineteen (2019) signed by Stacy  
-----

Apgar, Assistant Secretary of STARLINK before Maribel Mendez, Notary Public in and for the State of New Jersey, duly certified pursuant to a certificate of the Treasurer of the State of New Jersey dated March fourteenth (14<sup>th</sup>), two thousand and nineteen (2019), the original of which has been examined by the undersigned notary and shall accompany the original of this Deed.-----

-----Pursuant to Article Ten (10) of the Registry of Property of the Commonwealth of Puerto Rico Act, Act Number Two Hundred Ten (210) of December eight (8), two thousand fifteen (2015), as amended (the "Registry Act"), I, the Notary, certify that the certificates which attest to the representative capacity of the representatives of the appearing parties, complies with the applicable requirements under Puerto Rico Law.-----

-----I, the Notary, do hereby certify that I personally know the persons appearing herein and, through their statements, I further certify as to their age, civil status, profession, and residence. They assure me that they have, and in my judgment, they do have, the necessary legal capacity to execute this public instrument, and therefore, the appearing parties freely, voluntarily and in their own will **STATE AS FOLLOWS:**-----

-----**RECITALS**-----

-----**WHEREAS**, pursuant to Deed Number Four (4) of Segregation, Grouping, Conveyance and Constitution of Easements by and between BOEHRINGER, as seller, and STARLINK, as purchaser, dated as of December Sixth (6th), two thousand sixteen (2016) ("**Effective Date**") before the undersigned Notary Public, filed and pending recordation at entry 2016-123785-MA01 ("**Deed Number Four**"), of Section I of the Registry of Property of Manatí ("**Registry**"), as clarified pursuant to Deed Number Five (5) of Clarification (*Acta Aclaratoria*) executed by BOEHRINGER, dated as of December twenty first (21st), two thousand and sixteen (2016) before the undersigned Notary Public, filed and pending recordation at entry 2016-129827-MA01 of the Registry ("**Deed Number Five**"), and as further amended pursuant to Deed Number One (1) of Amendment to the Deed of Segregation, Grouping, Conveyance and Constitution of Easements dated as of May third (3rd), two thousand and eighteen before the undersigned Notary Public, filed and pending recordation at entry 2018-042376-MA01 ("**Deed Number One**" and together with Deed Number Four and Deed Number Five, hereinafter referred to as the "**Deed of Conveyance**"), BOEHRINGER (i) segregated a parcel of land of forty eight thousand and twenty four point three thousand three hundred and thirty eight (48,024.3338) square meters, equal to twelve point two thousand one hundred and eighty seven (12.2187) *cuerdas* ("**Segregated Parcel**") from the property filed and pending recordation at Entry One Thousand Six Hundred and Thirty One (1631) of volume Three

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Hundred and Seven (307) of the Book of Daily entries of Barceloneta, Registry of Property of Manatí (“Main Parcel”); (ii) grouped the Segregated Parcel with (a) property number nine thousand and eighty (9080), recorded at page one hundred and three (103) of volume one hundred and thirty (130) of Barceloneta, Registry of Property of Manatí, and (b) the property filed and pending recordation at entry two hundred and nineteen (219) of volume two hundred and ninety four (294) of the Book of Daily Entries of Barceloneta, Registry of Property of Manatí (the grouped parcel, hereinafter “StarLink Property,” as more fully described below); (iii) conveyed the StarLink Property to StarLink, and (iv) constituted a temporary use easement under the provisions of Article Four Hundred and Sixty Six (466) of the Puerto Rico Civil Code (“Civil Code”), 31 L.P.R.A. §1632 and Article Five Hundred and Thirty (530) of the Civil Code, 31 L.P.R.A. §1821 (“Temporary Use Easement”), on, over and across and encumbering the remnant of the Main Parcel in favor of STARLINK, as per the terms of that certain Access Agreement by and between STARLINK and BOEHRINGER dated as of December sixth (6<sup>th</sup>), two thousand and sixteen (2016), as amended on May third (3<sup>rd</sup>), two thousand and eighteen (2018) (“First Amended Access Agreement”), in order to grant STARLINK the right to access the StarLink Property through the remnant of the Main Parcel to allow for the performance of certain environmental work to be conducted by STARLINK, and to provide access to representatives and personnel of government agencies, including the United States Environmental Protection Agency (“USEPA”) and the Puerto Rico Environmental Quality Board (“PREQB”), with authority over such environmental work.-----

-----WHEREAS, on March sixteen (16), two thousand and eighteen (2018), USEPA issued a letter to BOEHRINGER and STARLINK conditioning the issuance of a revised Resource Conservation and Recovery Act Permit and Corrective Action Module in connection with the StarLink Property (as such property is more fully described below), upon a further amendment to the First Amended Access Agreement (and the Temporary Use Easement constituted pursuant to the terms of the Deed of Conveyance) to provide continuing access by STARLINK, USEPA and PREQB to the remnant of the Main Parcel (as such property is more fully described below) in order to conduct any necessary environmental corrective actions in connection with the Main Parcel and/or the StarLink Property.-----

-----WHEREAS, STARLINK and BOEHRINGER wish to further amend the Deed of Conveyance, as requested by USEPA, in order to allow for continuing access by STARLINK, USEPA and PREQB to the remnant of the Main Parcel, as detailed herein;-----

-----NOW THEREFORE, in consideration of the foregoing, the parties

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hereby-----

-----STATE and AGREE:-----

-----**FIRST: Description of STARLINK Property and Title.** STARLINK states that it is the owner of the **StarLink Property** located in the Municipality of Barceloneta, Puerto Rico, and described as follows:

---**RÚSTICA:** Plot of land of irregular shape, located at the Florida Afuera Ward, Quebrada Sector, in the Municipality of Barceloneta, Puerto Rico, with an area of one hundred and sixty five thousand six hundred and three point one thousand nine hundred and sixty eight (165,603.1968) square meters, equivalent to forty two point one thousand three hundred and forty (42.1340) cuerdas; Bounded by the NORTH with Merial Barceloneta, LLC and Succession of Ramon Ortega, by the EAST, with a strip of land dedicated to public use, State Road Road Six Hundred and Sixty Six (PR-666) and with the Succession of Ramon Ortega; by the SOUTH, with Mr. Angel R. Maldonado, Mr. Anfbal Rodriguez, Succession of Nicomedes Caballero, Mr. Anastacio Cabrera and Mr. Pedro Morales; and by the WEST, with Mr. Primitivo Reyes and Merial Barceloneta, LLC.-----

---The StarLink Property was acquired by STARLINK pursuant to the Deed of Conveyance described above in the recitals of this instrument, and has been filed and is pending recordation at entries 2016-123785-MA01, 2016-129827-MA01 and 2018-042376-MA01 of the Karibe System of the registry of Property of Puerto Rico.-----

---The **Starlink Property** has been assigned Property Tax Identification Number ("Número de Catastro") 055-044-631-04-000.-----

-----**SECOND. Description of the Remnant Main Parcel and Title.** BOEHRINGER states that it is the owner of the remnant Main Parcel located in the Municipality of Barceloneta, Puerto Rico, and described as follows:-----

---**RÚSTICA:** Radicada en el Barrio Florida Afuera del término municipal de Barceloneta, Puerto Rico, compuesta de seiscientos veinte mil seiscientos treinta y ocho punto cinco mil cuatrocientos cincuenta y tres (620,638.5453) metros cuadrados equivalentes a ciento cincuenta y siete punto nueve mil setenta y cuatro cuerdas (157.9074 cdas.). En lindes por el NORTE, con Millenium Property Corp., y Merial Barceloneta LLC, por el SUR, Merial Barceloneta LLC, Cándido Maisonet, Sucesión José A. López Sierra, Unión Carbide Borinquen, Inc., Basilio Rodríguez Cancel, Roberto Linares, Sucesión Santos Rodríguez, Primitivo Reyes, Julio Reyes Laureano y camino municipal; por el ESTE, propiedad municipal y la parcela de StarLink Logistics, Inc.; y por el OESTE, con camino municipal, Master Link Acquisitions, Pepsico Caribbean, Inc., y Union Carbide Borinquen, Inc.-----

---The Main Parcel is the remnant resulting from the segregation effected pursuant to Deed of Conveyance of an area of forty eight thousand twenty four point three thousand three hundred and thirty eight square meters (48,024.3338 m.c.), equal to twelve point two thousand one hundred and eighty seven *cuerdas* (12.2187 cdas.) from the parcel of land owned by



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BOEHRINGER, which parcel was acquired by BOEHRINGER (formerly Merial Barceloneta, LLC) pursuant to Deed Number Two (2) of Purchase and Sale before Notary Public Thelma Rivera Laboy dated as of March two (2) two thousand and fifteen (2015), filed and pending recordation at Entry One Thousand Four Hundred and Five (1405) Three Hundred and Twenty Five (325) of the Daily Book of Entries of the Registry.

-----The Main Parcel is subject to the following liens and encumbrances:-----

----- (a) by its origin:-----

----- (i) Easement in favor of the Puerto Rico Electric Power Authority;--

----- (ii) Easement in favor of the Puerto Rico Aqueduct and Sewer System Authority; -----

----- (iii) Easement in favor of Union Carbide; and -----

----- (iv) Easement in favor of Martina Arce.-----

----- (b) by itself:-----

----- (i) Right of Way Easement of seven meters (7.00 m.) in width as servient tenement for the benefit of property seven thousand six hundred and eighty eight (7688) recorded at page one hundred and five (105) of volume one hundred and twenty two (122) of Barceloneta, Registry of the Property of Puerto Rico, Manatí Section, as dominant tenement, which right of way easement was constituted pursuant to Deed Number One (1) dated as of October Twenty Nine (29) Nineteen Eighty Two (1982), before Notary Public Eduardo M. Negron Navas and recorded at Page Sixteen (16) overleaf of Volume one hundred and fifteen (115) of Barceloneta, second (2<sup>nd</sup>) inscription.-----

----- (ii) Right of Way Easement real and permanent of seven meters (7.00 m.), to provide access to: (A) parcel number nine thousand seventy one (9071) recorded at page fifty six (56) of volume one hundred and thirty (130) Barceloneta, Registry of the Property of Puerto Rico, Manatí Section, as dominant tenement, and (B) parcel number nine thousand seventy two (9072) recorded at page sixty one (61) of volume one hundred and thirty (130) Barceloneta, Registry of the Property of Puerto Rico, Manatí Section as dominant tenements, which right of way easement was constituted pursuant to Deed Number One (1) dated as of December twenty eight (28), nineteen eighty four (1984), before Notary Public Eduardo M. Negron Navas and recorded at Page Seventeen (17) of Volume one hundred and fifteen (115) of Barceloneta, third (3<sup>rd</sup>) inscription. -----

----- (iii) Right of Way Easement real and permanent of seven meters (7.00 m.), to provide access to Property Nine Thousand and Eighty (9080), which right of way easement was constituted pursuant to Deed Number One (1)



dated as of March Fourteen (14), nineteen eighty five (1985), before Notary Public Eduardo M. Negron Navas and recorded at Page Seventeen (17) overleaf of Volume one hundred and fifteen (115) of Barceloneta, fourth (4<sup>th</sup>) inscription.

----- (iv) the Temporary Use Easement constituted pursuant to the Deed of Conveyance.

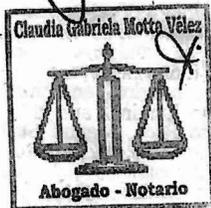
----- The remnant Main Parcel has been assigned Property Tax Identification Number ("Número de Catastro") 055-000-002-20.

----- **THIRD: Amendment to Deed of Conveyance.** As per the letter issued by the USEPA on March sixteenth (16<sup>th</sup>), two thousand and eighteen (2018) ("**Request Letter**"), a copy of which is attached hereto as **Exhibit I**, as a condition of the issuance of a revised RCRA Permit and Corrective Action Module in connection with the **StarLink Property**, USEPA required STARLINK and BOEHRINGER to amend the provisions of the Amended Access Agreement to provide for continuing (not temporary) access by STARLINK, USEPA and PREQB to the remnant of the Main Parcel described in Paragraph SECOND, above.

----- Pursuant to the terms Paragraph FIFTH of the Deed of Conveyance, BOEHRINGER constituted and granted a Temporary Use Easement (as said term is defined in the Deed of Conveyance) pursuant to the provisions of Articles Four Hundred and Sixty Six (466) of the Puerto Rico Civil Code ("**Civil Code**"), 31 L.P.R.A. §1632, and Article Five Hundred and Thirty (530) of the Civil Code, 31 L.P.R.A. §1821, on, over and across the Main Parcel, and encumbering the Main Parcel in favor and for the benefit of STARLINK, to provide physical access by STARLINK, and STARLINK's representatives, and those government agencies with authority over the Environmental Work and Environmental Laws (as said term is defined in the Deed of Conveyance), to perform certain Environmental Work (as said term is defined in the Deed of Conveyance).

----- Therefore, as required under the Request Letter as a condition of the issuance of a revised corrective RCRA Permit and Corrective Action Module in connection with the **StarLink Property**, STARLINK and BOEHRINGER agreed to further amend the First Amended Access Agreement as per the terms of that certain Second Amendment to the Access Agreement dated as of August Twenty Seventh (27<sup>th</sup>), two thousand and nineteen, a copy of which is attached hereto as **Exhibit II** ("**Second Amended Access Agreement**").

----- As a result thereof, STARLINK and BOEHRINGER wish to further amend the terms of the Deed of Conveyance to incorporate the conditions of the Request Letter, as reflected in the Second Amended Access Agreement.



As such, and in accordance with and subject to the terms of the Second Amended Access Agreement, STARLINK and BOEHRINGER hereby amend and restate Paragraph FIFTH of the Deed of Conveyance, to read in its entirety as follows:-----

-----*"FIFTH: Seller hereby confirms the existence of a right of way easement over the Remnant Main Parcel in favor of the GROUPE LANDFILL PARCEL and constitutes a personal real easement, as contemplated under Articles Four Hundred and Sixty Six (466) of the Puerto Rico Civil Code ("Civil Code"), 31 L.P.R.A. §1632, and Article Five Hundred and Thirty (530) of the Civil Code, 31 L.P.R.A. §1821, encumbering the REMNANT MAIN PARCEL in favor and for the benefit of (x) Purchaser, in its capacity as owner in fee simple of the GROUPE LANDFILL PARCEL, and any future owner in fee simple of the GROUPE LANDFILL PARCEL, and (y) the United States Environmental Protection Agency and/or the Puerto Rico Environmental Quality Board and/or any successor agency (each, an "Agency" and together the "Agencies"), subject to the following terms and conditions:-----*

-----*One. As of the time of execution of this Deed, environmental investigation, remediation, closure, corrective action and similar or related activities are or may be required with respect to a certain area within the GROUPE LANDFILL PARCEL, as shown and described in Exhibit B (the "Landfill Area"), and/or the REMNANT MAIN PARCEL pursuant to statute, law, regulation, order, or other authority, including without limitation the Solid Waste Disposal Act, 42 U.S.C. §§ 6901 et seq., and the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq. (all such activities the "Environmental Work" and all such authorities the "Environmental Laws"). For the purpose of facilitating the Environmental Work to the full extent required by the Environmental Laws, but subject always to the terms of the Access Agreement by and between Purchaser and Seller dated as of December sixth (6th), two thousand and sixteen (2016), together with all amendments thereto, a copy of which is attached hereto as Exhibit C (the "Second Amended Access Agreement") (including without limitation the obligation of Purchaser to construct the "SLLI Road" (as such term is defined in the Second Amended Access Agreement) as soon as practicable after the Effective Date (as such term is defined in the Second Amended Access Agreement)), Seller acknowledges and agrees that the REMNANT MAIN PARCEL is and continues to be encumbered by a right of way and access easement ("ROW Easement") on, over and across the REMNANT MAIN PARCEL, as servient parcel, as depicted in the attached Exhibit B, in favor of the GROUPE LANDFILL PARCEL, as dominant parcel. For the avoidance*



of doubt, the function of the ROW Easement shall be to provide physical access by Purchaser, any Purchaser affiliates involved in the Environmental Work, and their respective representatives, including employees, engineers, contractors, subcontractors and consultants (collectively, "Purchaser Representatives"), and by the Agencies and their respective employees, contractors, subcontractors and consultants ("Agency Representatives"), to the GROUPED LANDFILL PARCEL during the period commencing on the date of execution of this Deed and until such time as the SLLI Road (as such term is defined in the Second Amended Access Agreement) becomes available for vehicular traffic to the GROUPED LANDFILL PARCEL ("Access Period"), for the purpose of performing and overseeing the Environmental Work.-----

-----Two. Seller hereby constitutes a permanent personal real property access easement on, over and across the REMNANT MAIN PARCEL, as servient parcel, in favor of (x) Purchaser, in its capacity as owner in fee simple of the GROUPED LANDFILL PARCEL, its successors, assigns and/or future owners of the GROUPED LANDFILL PARCEL, and (y) the Agencies and Agency Representatives (hereinafter, the "Corrective Action Easement"). For the avoidance of doubt, the function of the Corrective Action Easement shall be to provide continuing physical access to the REMNANT MAIN PARCEL for the purpose of performing the Environmental Work in the REMNANT MAIN PARCEL, by Purchaser, any Purchaser affiliates involved in the Environmental Work, and Purchaser Representatives, and any successive owners of the GROUPED LANDFILL PARCEL and their respective representatives, and the Agencies and Agency Representatives, as reasonably necessary to perform or oversee Environmental Work related to contamination at or from the REMNANT MAIN PARCEL.-----

-----Three. The Corrective Action Easement shall be located as described in Exhibit B.-----

-----Four. It is the express intent of the Seller that the Corrective Action Easement created pursuant to the provision of this instrument and granted herein be a personal real property access easement in favor and for the benefit of Purchaser, as fee owner of the GROUPED LANDFILL PARCEL, and the Agencies and Agency Representatives, affecting and encumbering the REMNANT MAIN PARCEL as the servient parcel, as contemplated under Articles Four Hundred and Sixty Six (466) of the Puerto Rico Civil Code ("Civil Code"), 31 L.P.R.A. §1632, and Article Five Hundred and Thirty (530) of the Civil Code, 31 L.P.R.A. §1821. The Corrective Action Easement constituted herein shall encumber the REMNANT MAIN PARCEL, as servient parcel, and shall bind any subsequent owner or owners of REMNANT MAIN PARCEL.-----



-----*Five. Valuation. For recordation purposes only, the aforementioned Corrective Action Easement is valued at One Thousand Dollars (\$1,000.00).*-----

-----**FOURTH: Valuation.** For registration and notarial purposes and for no other purpose, STARLINK and BOEHRINGER value the amendment to the Deed of Conveyance described in Paragraph THIRD of this instrument in the total amount of FIVE THOUSAND DOLLARS (\$5,000.00).-----

-----**FIFTH: Severability.** If any provisions of this Deed or the application of such provision to any person or circumstances shall be held invalid by a court of the application of such provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.-----

-----**SIXTH: Request to the Registrar.** The Honorable Registrar of the Property is hereby respectfully requested to record the amendments to the Deed of Conveyance contemplated in this instrument.-----

-----**SEVENTH: Additional Instruments.** STARLINK and BOEHRINGER hereby agree to obtain, execute and deliver any and all additional instruments, documents and deeds, public or private, which may be reasonably required by applicable laws and regulations to record the easements as described herein.-----

-----**WARNINGS**-----

-----I, the Notary, made to the appearing parties the necessary legal warnings concerning the execution of this Deed and they were fully advised by me thereon, including without limitation as to the advisability of recording this Deed in the corresponding Registry of Property in order to afford the provisions contained herein full effect against third parties.-----

-----I further advised the appearing parties as to their right to read the Deed by themselves, which they did, and to have witnesses present at this execution, which they waived.-----

-----**ACCEPTANCE AND EXECUTION**-----

-----After having read the contents of this Deed, as stated in all preceding paragraphs, the appearing parties fully accept this Deed and ratify and confirm the statements contained herein as the true and exact embodiment of their stipulations, terms and conditions whereupon the appearing parties sign this Deed before me, the authorizing Notary, and sign the initials on each and every page of this Deed.-----

-----The required internal revenue and notarial stamps have been duly canceled



Handwritten initials: "CS", "EM", and "U".

on this Deed. The authorizing Notary has sealed and flourished each page of this Deed.-----

-----Whereupon the appearing parties acknowledge that they have understood this Deed in all its parts, as well as the foregoing legal warnings, and fully ratify and confirm the statements contained herein as the true and exact embodiment of their stipulations, terms, and conditions, sign their initials on the margin of each and every page, and sign the last page hereof.

-----TO ALL WHICH, under my signature, stamp, seal and flourish, I, the undersigned Notary, ATTEST AND GIVE FAITH. -----

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*[Handwritten flourish]*

  
4019-00150561

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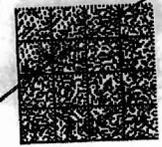


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08/28/2019  
\$4.00

Sello de Rentas Internas  
80004-2019-0826-68082001

  
1018-0078523

Sello



5155  
06/07/2019  
\$1.00

Impuesto Notarial  
80004-2019-0607-23820014

**Exhibit I - USEPA Request Letter**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION  
CITY VIEW PLAZA, SUITE 7000  
#48 165 RD. KM 1.2  
GUAYNABO, PR 00968-8069

MAR 16 2018

CERTIFIED MAIL/RETURN RECEIPT REQUESTED  
Article Number: 7015 0920 0000 8688 5337

Mr. Michael Bogdan  
SLLI C/O Sanofi  
Mailstop A200 - Central HSE  
55 Corporate Drive  
Bridgewater, NJ 08807

Mrs. Denise Moran  
Environmental Compliance Manager  
Merial Barceloneta, LLC  
P.O. Box 601  
Barceloneta, PR 00617-0601

Re: Request for Submission of a Corrective Action Permit Application<sup>1</sup>  
Merial/StarLink Barceloneta, LLC Facility RCRA Permit  
Barceloneta, Puerto Rico  
EPA ID Number: PRD 090028101

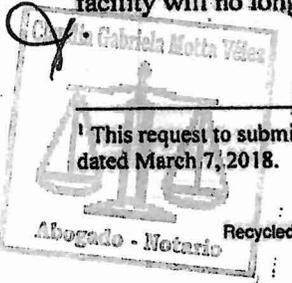
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Dear Mr. Bogdan and Mrs. Moran:

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As you are both aware, on May 18, 2017, EPA sent Merial/StarLink letters conditionally approving the Old Landfill Sampling and Analysis Plan Implementation Report and requesting the submission of a corrective action permit application. On December 5, 2017, the parties met to discuss some of the conditions set forth in EPA's May 2017 letters, including the need for additional groundwater monitoring at the Old Landfill. On December 21, 2017, Merial/StarLink submitted additional groundwater data from the area surrounding the Old and Secure Landfills to EPA for its review. EPA has concluded its review of that groundwater data.

Based on the information provided to EPA during the December 2017 meeting, as supplemented by the additional groundwater data, EPA has determined, subject to public notice and comment, that additional groundwater monitoring is not currently required for the Old Landfill. Additionally, because EPA approved Merial's Closure Certification Report (for all RCRA regulated units) on March 27, 2017, the facility will no longer be required to maintain liability financial assurance. See 40 C.F.R. 264.147(e).



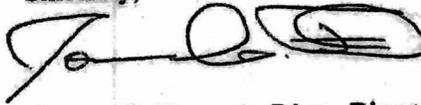
<sup>1</sup> This request to submit a corrective action permit application supersedes and replaces EPA's prior letter regarding the same dated March 7, 2018.

It is EPA's understanding that Merial/StarLink would like to remove the parcel of the property currently owned by Merial so that the proposed permit solely includes property owned by StarLink, which is where the Old and Secure Landfills are sited. Subject to the conditions set forth in EPA's May 18, 2017 letter requesting the submission of a corrective action permit application, EPA is willing to redraw the facility boundary lines as stated.<sup>2</sup>

In short, subject to public notice and comment, the revised corrective permit will contain the Standard and General Conditions typically found in Modules I and II of RCRA Permits and a Corrective Action module which will require deed restrictions, maintaining the cap over the Old Landfill, keeping the area secured (i.e. fencing and posting of appropriate signs), and financial assurance for these corrective measures.<sup>3</sup> It will, also among other things, contain provisions regarding newly discovered solid waste management units, areas of concern or other releases, including any off-site contamination.

The Permittee should submit a renewal application to EPA within 45 days of receipt of this letter. The application should indicate if the Permittees want to modify the Permit's definition to solely reference the property owned by StarLink, making StarLink the sole Permittee. If you have any questions regarding this correspondence, please contact Angel Salgado of my staff at 787 977-5854 or via email at [Salgado.angel@EPA.gov](mailto:Salgado.angel@EPA.gov).

Sincerely,



Carmen R. Guerrero-Pérez, Director  
Caribbean Environmental Protection Division

cc: Manuel O. Claudio Rodriguez, PREQB

<sup>2</sup> EPA understands that the Permittee has initiated necessary steps to build a road which would provide direct access to the property currently owned by StarLink, which contains the Old and Secure Landfills. Until that time, the December 2016 access agreement between Merial and StarLink must be modified to ensure that EPA and EQB have access to StarLink's property via Merial's property. Additionally, the agreement (or an additional agreement) must provide StarLink continuing access to Merial's property to conduct any necessary corrective actions. EPA and EQB must also be granted access to Merial's property.

<sup>3</sup> The public notice will indicate that EPA is tentatively approving, subject to public comment, the closure/capping of the Old Landfill and implementation of the above referenced long term corrective measures as the final remedy for the Old Landfill. EPA approved the clean closure of the Secure Landfill in January 1996.



-----Exhibit II - Second Amendment to Access Agreement-----

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EXHIBIT II

EXECUTION VERSION

SECOND AMENDMENT TO  
ACCESS AGREEMENT

This Second Amendment to Access Agreement ("Second Amendment") is entered into on this 27th day of August, 2019 ("Effective Date"), by and between StarLink Logistics Inc., a Delaware corporation ("SLLI"), and Boehringer Ingelheim Animal Health Puerto Rico LLC, a Puerto Rico *compañía de responsabilidad limitada* ("Boehringer" or "MB")<sup>1</sup> (each a "Party" and together the "Parties").

WHEREAS, on December 6, 2016, Boehringer, then the owner of the Acquired Facility, caused the ownership of the Landfill Parcel to be transferred by deed to SLLI, with Boehringer retaining ownership of the MB Property; and

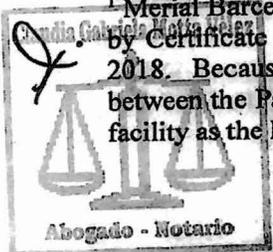
WHEREAS, on December 6, 2016, the Parties entered into that certain Access Agreement ("Access Agreement"), pursuant to which Boehringer agreed to grant SLLI access through the MB Property as necessary for SLLI to conduct the Work (as therein defined) in the Landfill Parcel, with Boehringer simultaneously granting corresponding rights to SLLI in the deed transferring the Landfill Parcel to SLLI; and

WHEREAS, on May 3, 2018, the Parties entered that certain First Amendment to Access Agreement, amending the Access Agreement to grant access, through the MB Property to the Landfill Parcel, to personnel of any government agency with responsibility for enforcement of laws, regulations, or other legal authority regarding the protection of human health and the environment, as necessary for such persons to perform their duties with respect to the Landfill Parcel (the Access Agreement as amended by the First Amendment to Access Agreement, the "First Amended Access Agreement," attached hereto as Exhibit 1), and the Parties simultaneously executed an amendment to the deed that had transferred the Landfill Parcel to SLLI, to reflect the same grant of access; and

WHEREAS, Boehringer has agreed to grant, upon notice to Boehringer, access to SLLI and to the U.S. Environmental Protection Agency and the Puerto Rico Environmental Quality Board and/or any successor agency (each an "Agency" and together the "Agencies"), to enter the MB Property as necessary for SLLI to conduct the Work (as hereinafter redefined) in the MB Property (including without limitation any corrective action required pursuant to a permit or similar authority duly issued by an Agency) and for the Agencies' personnel to perform their duties in the MB Property, and Boehringer has additionally agreed to further amend the deed that had transferred the Landfill Parcel to SLLI, to reflect the same grant of access; and

WHEREAS, Section 12 of the Access Agreement provides that the Parties may amend the Access Agreement by an amendment duly executed in writing;

<sup>1</sup> Merial Barceloneta, LLC was renamed Boehringer Ingelheim Animal Health Puerto Rico LLC by Certificate of Amendment filed with the Department of State of Puerto Rico on October 1, 2018. Because the definition "MB" has been used to refer to Boehringer in prior agreements between the Parties, this Second Amendment will continue to refer to Boehringer as MB and its facility as the MB Property for purposes of further amending the Access Agreement.



NOW THEREFORE, in consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree to this Second Amendment of the Access Agreement as follows:

1. Effect of Amendment. Except as explicitly altered by this Second Amendment, all provisions of the First Amended Access Agreement shall remain in full force and effect. In the event of any conflict between the terms of the First Amended Access Agreement and this Second Amendment, the terms of this Second Amendment shall govern. All capitalized terms in this Second Amendment shall have the meaning ascribed to them in the First Amended Access Agreement unless defined in this Second Amendment.

2. Amendment of Access Agreement.

The third paragraph of the recitals of the Access Agreement, as amended by the First Amendment to the Access Agreement and containing the definition of the word "Work," is hereby deleted and replaced with the following bracketed text: [WHEREAS, MB has agreed to grant SLLI access, upon notice to MB, to and through the MB Property as necessary for SLLI to conduct environmental investigation, remediation, closure, corrective action, and similar or related activities to the extent necessary or required by the U.S. Environmental Protection Agency and/or the Puerto Rico Environmental Quality Board and/or any successor agency (each an "Agency" and together the "Agencies") on the MB Property, on the Landfill Parcel, or both, as appropriate (all such activities in either location, the "Work");].

Further, Section 2(b) of the Access Agreement, as amended by the First Amendment to the Access Agreement, is hereby deleted and replaced with the following bracketed text: [

(b) MB hereby grants (i) to SLLI, any SLLI affiliates involved in the Work, and their respective representatives, including employees, engineers, contractors, subcontractors and consultants (collectively, "SLLI Representatives"), and (ii) to the Agencies and to their respective officials, employees, contractors, subcontractors and consultants (collectively, "Agency Representatives"), the following rights: (x) during the Access Period, a right of access through the MB Property to the Landfill Parcel, along the route described and depicted in Exhibit A, to perform or oversee Work; and (y) a right of access to enter the MB Property to perform or oversee Work related to contamination at or from the MB Property. MB shall designate sufficient space within the MB Property (located proximate to the areas where the Work is to be performed) for (i) the temporary storage and staging of tools, materials and equipment and for the parking of vehicles, temporary construction trailers and facilities reasonably necessary during the Work, and (ii) access for material handling, provided that SLLI shall use commercially reasonable efforts to refrain (and to cause SLLI Representatives to refrain) from storing any hazardous or contaminated materials on the MB Property at any time. Except to the extent reasonably required to implement an Agency-approved investigatory or remedial plan for performance of the Work, SLLI shall not use the MB Property in any manner that would materially damage, devalue, or create a risk to or liability for the MB Property.]

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Further, Section 2(c) of the Access Agreement, as amended by the First Amendment to the Access Agreement, is hereby amended by the deletion of the following bracketed text: [during the Access Period].

Further, Section 2(g) of the Access Agreement, as amended by the First Amendment to the Access Agreement, is hereby amended by the deletion of the following bracketed text: [in the Landfill Parcel].



Further, Section 12 of the Access Agreement, as amended by the First Amendment to the Access Agreement, is hereby amended by the addition of the following bracketed text after the existing text of that Section: [Promptly following each amendment of this Agreement, SLLI shall provide each Agency with a true and correct copy of this Agreement together with all amendments hereto.]

3. Multiple Counterparts. All provisions of Section 8 of the Access Agreement governing execution in counterparts shall apply to this Second Amendment.

*[Signature page follows]*

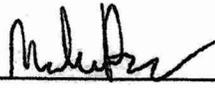
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IN WITNESS WHEREOF, the Parties have caused this Second Amendment to Access Agreement to be duly executed as of the Effective Date.

**STARLINK LOGISTICS INC.**

**BOEHRINGER INGELHEIM ANIMAL  
HEALTH PUERTO RICO LLC**

By:   
Name: MICHAEL BOGDAN  
Title: PRESIDENT

By: \_\_\_\_\_  
Name:  
Title:





[Signature page to Second Amendment to Access Agreement]



# EXHIBIT 1

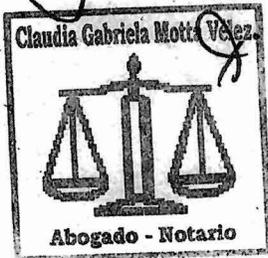
to Second Amendment to Access Agreement:

First Amended Access Agreement

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**EXECUTION VERSION**

**FIRST AMENDMENT TO  
ACCESS AGREEMENT**

This First Amendment to Access Agreement ("First Amendment") is entered into on this 3rd day of May, 2018 ("Effective Date"), by and between StarLink Logistics Inc., a Delaware corporation ("SLLI"), and Merial Barceloneta, LLC, a Puerto Rico *compañía de responsabilidad limitada* ("MB") (each a "Party" and together the "Parties").

**WHEREAS**, on December 6, 2016, MB, then the owner of the Acquired Facility, caused the ownership of the Landfill Parcel to be transferred by deed to SLLI, with MB retaining ownership of the MB Property; and

**WHEREAS**, on December 6, 2016, the Parties entered into that certain Access Agreement ("Access Agreement"), pursuant to which MB agreed to grant SLLI access to and through the MB Property as necessary for SLLI to conduct the Work in the Landfill Parcel, with corresponding rights being granted in the deed transferring the Landfill Parcel to SLLI; and

**WHEREAS**, MB has agreed to further grant similar access to personnel of any government agency with responsibility for enforcement of laws, regulations, or other legal authority regarding the protection of human health and the environment, as necessary for such persons to perform their duties; and

**WHEREAS**, Section 12 of the Access Agreement provides that the Parties may amend the Access Agreement by an amendment duly executed in writing;

**NOW THEREFORE**, in consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree to this First Amendment of the Access Agreement as follows:

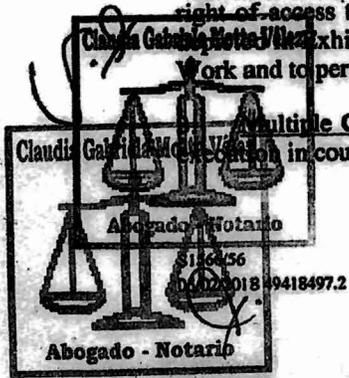
*Handwritten initials and scribbles:*  
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1. **Effect of Amendment.** Except as explicitly altered by this First Amendment, all provisions of the Access Agreement shall remain in full force and effect. In the event of any conflict between the terms of the Access Agreement and this First Amendment, the terms of this First Amendment shall govern. All capitalized terms in this First Amendment shall have the meaning ascribed to them in the Access Agreement unless defined in this First Amendment.

2. **Amendment of Access Agreement.** The first sentence of Section 2(b) of the Access Agreement is hereby deleted and replaced with the following bracketed text: [During the Access Period, MB hereby grants to (i) SLLI, any SLLI affiliates involved in the Work, and their respective representatives, including employees, engineers, contractors, subcontractors and consultants (collectively, "SLLI Representatives"); and (ii) any personnel of any government agency with responsibility for enforcement of laws, regulations, or other legal authority regarding the protection of human health and the environment ("Agency Representatives"), a right of access through the MB Property to the Landfill Parcel, along the route described and set forth in Exhibit A, as necessary or convenient to permit SLLI Representatives to perform the Work and to permit Agency Representatives to perform their duties.]

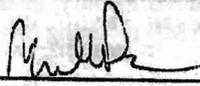
**Multiple Counterparts.** All provisions of Section 8 of the Access Agreement governing counterparts shall apply to this First Amendment.

*[Signature page follows]*

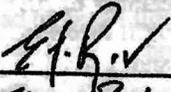


IN WITNESS WHEREOF, the Parties have caused this First Amendment to Access Agreement to be duly executed as of the Effective Date.

**STARLINK LOGISTICS INC.**

By:   
Name: MICHAEL BOGDAN  
Title: PRESIDENT

**MERIAL BARCELONETA, LLC**

By:   
Name: Edwin Rodriguez  
Title: Site Director  
Merial Barcelona, LLC

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are  
J*



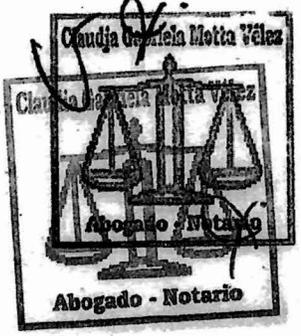
[Signature page to First Amendment to Access Agreement]



# EXHIBIT A

Access Agreement  
dated December 6, 2016

*S*  
*km*  
*J.*



ACCESS AGREEMENT

This Access Agreement ("Agreement") is entered into on this 6th day of December, 2016 ("Effective Date") by and between StarLink Logistics Inc., a Delaware corporation ("SLLI"), and Merial Barceloneta, LLC, Puerto Rico *compañía de responsabilidad limitada* ("MB") (each a "Party" and together the "Parties").

WHEREAS, on or about March 2, 2015, MB became the owner of certain real property located at State Road PR 2, Km 56.7, in Barceloneta, Puerto Rico, including the facility thereon (all such real property the "Acquired Facility");

WHEREAS, MB has caused or will cause the ownership of certain areas of real property near the eastern portion of the Acquired Facility, described as the "Area to be Grouped" on that certain Boundary and Segregation Survey Map of Tract of Lands Property, Merial Barceloneta, LLC, dated May 2, 2016, filed by MB with the *Oficina de Gerencia de Permisos* on September 16, 2016 and attached to this Agreement as Exhibit A, to be transferred to SLLI (the "Landfill Parcel"), with MB retaining ownership of all portions of the Acquired Facility not so transferred (the "MB Property");

*EMC*  
*B*

WHEREAS, MB has agreed to grant SLLI access to and through the MB Property as necessary for SLLI to conduct environmental investigation, remediation, closure, and similar or related activities in the Landfill Parcel ("Work");

NOW THEREFORE, in consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **SLLI Road and Fence.** As soon as practicable after the Effective Date, and at SLLI's sole expense, SLLI shall use commercially reasonable efforts to construct: (a) a road (including obtaining all necessary regulatory and government approvals for such road) through real property owned by SLLI and make it available for use by vehicular traffic for the purpose of performing the Work in the Landfill Parcel (the "SLLI Road"); and (b) a reasonably appropriate fence consistent with the site's existing boundary fence, to be maintained by SLLI, located along the property boundary between the Landfill Parcel and the MB Property for the purpose of providing a physical barrier between these two properties.

2. **Access Rights.** (a) For purposes of this Agreement, the term "Access Period" means the period from the Effective Date until such time as the SLLI Road becomes available for vehicular traffic to the Landfill Parcel for the purpose of performing the Work.

(b) During the Access Period, MB hereby grants to SLLI, any SLLI affiliates involved in the Work, and their respective representatives, including employees, engineers, contractors, subcontractors and consultants (collectively, "SLLI Representatives"), a right of access through the MB Property to the Landfill Parcel, along the route described and depicted in Exhibit A, as necessary or convenient to permit SLLI Representatives to perform the Work. MB shall designate sufficient space, located proximate to the Retained Area and within the MB Property, for the temporary storage and staging of tools, materials and equipment by SLLI and for the parking of SLLI Representatives' vehicles, temporary construction trailers and facilities as may be necessary during the Work, and (ii) access for material handling, provided that SLLI

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*EMC*  
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Execution Version

shall not (and procure that SLLI Representatives do not) store any contaminated materials on the MB Property at any time.

(c) The right of access granted by this Section 2 shall continue during the Access Period notwithstanding any transfer by MB of the MB Property or any portion thereof to any other person or entity, and this Agreement shall be binding on any subsequent owners or holders of any interest in the MB Property. SLLI shall record this Agreement with the Registry of Property of Manati within five days of the Effective Date hereof.

(d) SLLI shall notify MB at least two (2) days in advance of any future access needs, provided that, where emergency access is required, SLLI shall provide notice as promptly as feasible. Any such notice may be by telephone call at (678) 638 3904 or electronic mail to [marshall.berton@gmail.com](mailto:marshall.berton@gmail.com) or other designated MB personnel.

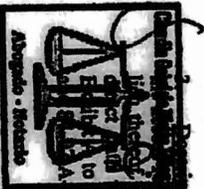
(e) MB shall be required to provide access pursuant to this Agreement only during the normal business hours of MB, unless MB otherwise approves in writing on notice to SLLI, in a manner that minimizes inconvenience to and interference with the use of the MB Property by MB, its agents, employees, contractor, guests, invitees and other occupants of the MB Property; provided, however, that if emergency access is needed, then SLLI shall be permitted to access the Landfill Parcel as reasonably necessary to address the emergency.

(f) Neither SLLI nor any SLLI Representatives shall interfere unreasonably with the use, occupancy or enjoyment rights of MB or any employee, agent, contractor, visitor, guest or tenant or other occupant of the MB Property or such agent's, contractor's, visitor's, guest's or tenant's or occupant's employees, contractors, customers or guests.

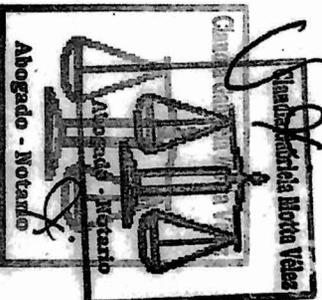
(g) While SLLI Representatives are on the MB Property, they shall comply with MB's environmental, health, safety and security policies and procedures as delivered to SLLI in writing ("Policies and Procedures"), as may be amended from time to time by MB, as may be applicable to SLLI's access to and through the MB Property for purposes of performing the Work in the Landfill Parcel. MB agrees to provide SLLI copies of all applicable Policies and Procedures in effect as of the Effective Date and to provide copies of all modifications, changes or revised Policies and Procedures as soon as practicable (but in no event later than 5 business days) after the effective date of publication.

(h) After each instance of SLLI's access to the MB Property according to the terms provided in this Section 2, SLLI shall be responsible for the removal of all personal property of the SLLI Representatives from the MB Property and shall leave the MB Property in substantially its condition prior to that instance of access. Any area of the MB Property used by SLLI for temporary storage as provided in Section 2(f) shall be returned to its original condition, except for ordinary wear and tear. All costs and expenses related to the provisions of this Section 2(h) shall be for the account of SLLI.

(i) Description of Access. The Parties acknowledge that a precise geographical description of the MB Property is not available through the MB Property has not been and shall not be developed, and that in lieu thereof, the access route provided pursuant to this Agreement shall proceed on the MB Property from the MB Property and from the Landfill Parcel through the following easements depicted on the attached map to this Agreement: Access Easement Case Nos. 81-07-D895-APL, 84-07-F-589-APL, 81-07-D895-APL.



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4. **Indemnification.** MB shall indemnify and hold harmless SLLI from and against any claim, demand, suit or action, and any liability, loss, damage, or judgment which may arise therefrom, as well as against any fees including attorney's fees, costs, charges or expenses which SLLI incurs in the defense of any such claim, suit, action or similar such demand made or filed by any third party against SLLI to the extent same arises out of or relates to the actions or omissions of MB, or its representatives, including employees, engineers, contractors, subcontractors and consultants, in connection with SLLI's access on the MB Property. SLLI shall indemnify and hold harmless MB from and against any claim, demand, suit or action, and any liability, loss, damage, or judgment which may arise therefrom, as well as against any fees including attorney's fees, costs, charges or expenses which MB incurs in the defense of any such claim, suit, action or similar such demand made or filed by any third party against MB to the extent same arises out of or relates to actions or omissions of SLLI or SLLI Representatives in connection with SLLI's access on the MB Property (other than ordinary wear and tear caused by such access).

*MB*

5. **Representations.** Each Party represents and warrants to the other Party that (i) it has been duly authorized to enter into this Agreement by all necessary corporate action, (ii) it will not be in default under any agreement to which it is a party as a result of entering into this Agreement, (iii) this Agreement has been duly executed and delivered by each respective Party, and (assuming due authorization, execution and delivery by such Party) this Agreement constitutes a legal, valid and binding obligation of such Party enforceable against the other Party in accordance with its terms.

6. **No Waiver.** No waiver of any default by any Party hereto shall be implied from any omission by any other Party hereto to take any action with respect to such default. No express waiver of any default shall affect any default or cover any period of time other than the default and period of time specified in such express waiver. A waiver of any default in the performance of any provision contained in this Agreement shall not be deemed to be a waiver of any subsequent default in the performance of the same provision or any other provision contained herein.

7. **Notices.** Unless otherwise provided herein, any notice required pursuant to this Agreement shall be hand delivered, sent by registered or certified U.S. Mail, postage prepaid, or by commercial overnight delivery service, or transmitted by electronic mail and shall be deemed delivered to the addressee or its office when received at the address for notice specified on the signature page hereof when hand delivered, upon sending when sent by electronic mail (if sent during normal business hours or the next business day if sent at any other time), on the business day after being sent when sent by overnight delivery service (Saturdays, Sundays and legal holidays excluded), or five business days after deposit in the mail when sent by U.S. mail.

*EM*  
*U*

Notices to MB shall be sent to:

MERIAL BARCELONETA LLC  
Road #2, Km. 56.7  
Barceloneta, PR 00617

With a copy to:

Merial, Inc.  
3239 Satellite Blvd



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Execution Version

Duluth, GA 30096  
Attn: General Counsel

Notices to SLLI shall be sent to:

StarLink Logistics, Inc.  
Attn: Michael Bogdan  
55 Corporate Drive  
Bridgewater, New Jersey 08807

With a copy to:

Sanofi US  
Attn: Michelle C. Sullivan, Esq.  
55 Corporate Drive  
Bridgewater, New Jersey 08807

*BB*

8. **Multiple Counterparts.** This Agreement may be executed in as many counterparts as may be convenient or required. It shall not be necessary that the signature of, or on behalf of, each Party, or that the signature of all persons required to bind any Party, appear on each counterpart. All counterparts shall collectively constitute a single instrument. It shall not be necessary in making proof of this instrument to produce or account for more than a single counterpart containing the respective signatures of, or on behalf of, each of the parties hereto. A signature page to any counterpart may be detached from such counterpart without impairing the legal effect of the signatures thereon and thereafter attached to another counterpart identical thereto except having attached to it additional signature pages.

9. **Invalid Provisions.** If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement.

10. **Governing Law.** This Agreement shall be construed and enforced in accordance with the laws of the Commonwealth of Puerto Rico.

11. **Further Assurances.** Upon the receipt of a written request from the other Party, each Party shall execute such additional documents, instruments and assurances and take such additional actions as are reasonably necessary to carry out the terms and intent of this Agreement. Neither Party shall unreasonably withhold, condition or delay its compliance with any reasonable request made pursuant to this section.

12. **Entire Agreement.** This Agreement constitutes the sole agreement between the Parties with respect to the rights granted herein and cannot be changed, modified or extended, except through an amendment duly executed, in writing, between the Parties.

*S*  
*em*  
*J.*



Execution Version

13. **Successors.** The terms and conditions of this Agreement and the rights and obligations created as a result thereof shall be binding upon and inure to the benefit of the Parties hereto, their officers, directors, agents, employees, successors, transferees, permitted assigns, heirs, designees, and contractors.

14. **Headings.** Section heading are for convenience only and shall not affect the interpretation of this Agreement.

[Signature page follows]

*Handwritten initials: GML*

*Handwritten signature: S. GML*



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**PRIVILEGED AND CONFIDENTIAL  
ATTORNEY-CLIENT COMMUNICATION  
DRAFT FOR DISCUSSION**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the Effective Date.

**STARLINK LOGISTICS INC.**

**MERIAL BARCELONETA, LLC**

By: *[Signature]*  
Name: Michael Prodzas  
Title: Director

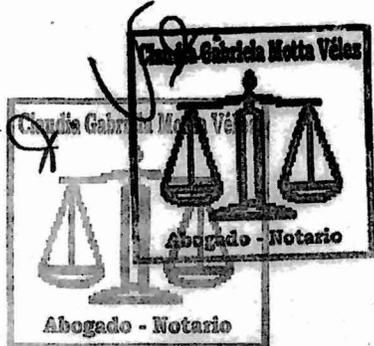
By: *[Signature]*  
Name: Edwin Rodriguez Chan  
Title: Site Director

*MB*  
*em*

*S*  
*em*  
*S.*



[Signature Page to Access Agreement]



Execution Version

**EXHIBIT A**

**Boundary and Segregation Survey Map of Tract of Lands Property,  
Merial Barceloneta, LLC. dated May 2, 2016**

The route of access through the MB Property as provided in Section 2 of this Agreement shall be along the most direct path to and from the Landfill Parcel through the following easements depicted on the following pages:

Access Easement Case # 81-07-D895-APL, connecting the westernmost area of the MB Property with the access easement described immediately below;

Access Easement Case # 84-07-F-589-APL, connecting the access easement described immediately above with the access easement described immediately below;

Access Easement Case # 84-07-A-147-APL, connecting the access easement described immediately above with the Landfill Parcel.

*EM*  
*MB*

*S*  
*J. [Signature]*

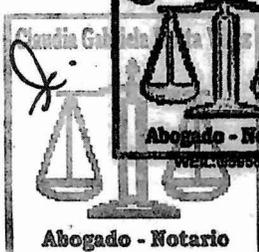
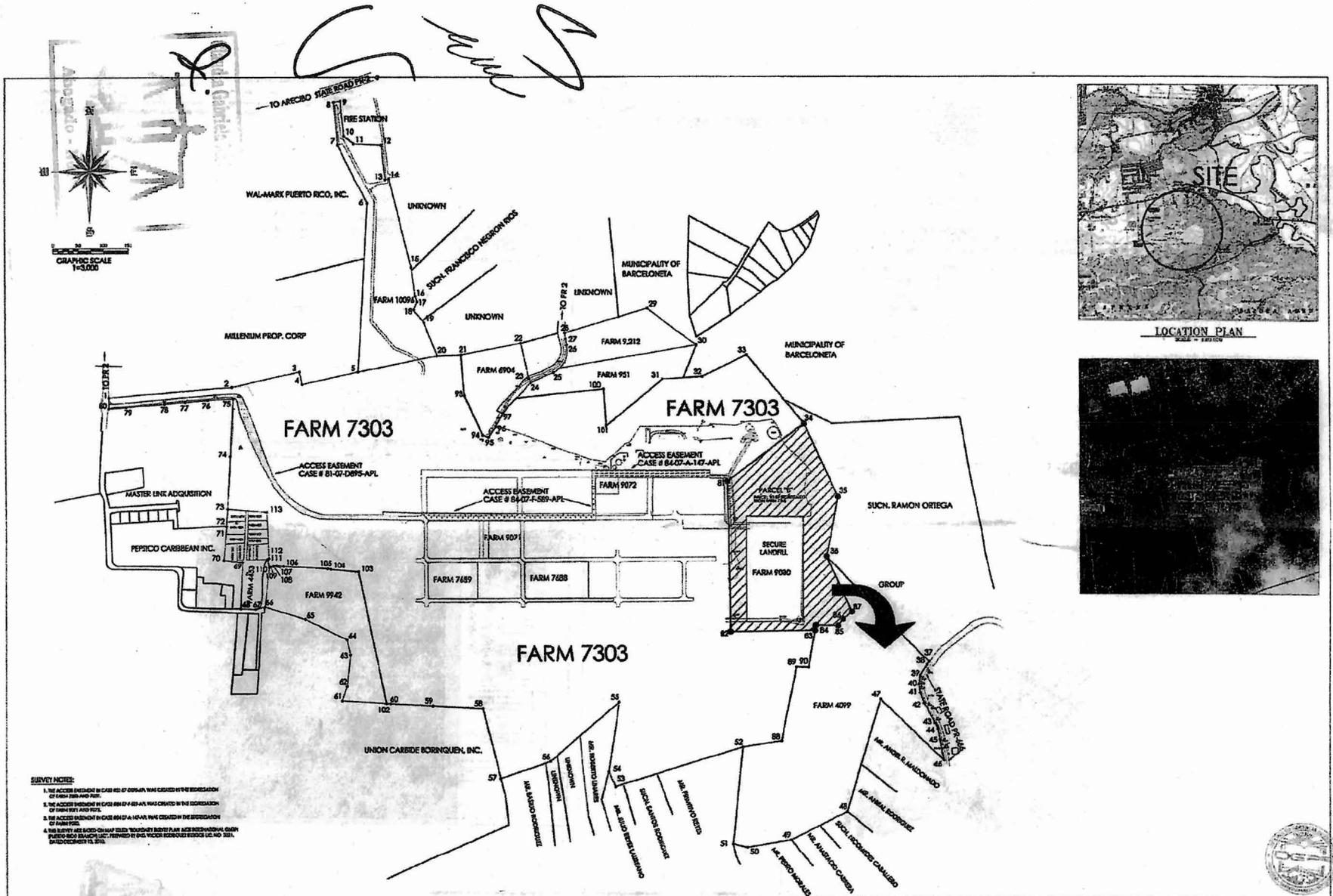


Exhibit A





**SURVEY NOTES:**

1. THE ACCESS EASEMENT IN CASE #81-07-D885-APL WAS CREATED BY THE REGISTRATION OF THE PLAN 2118-13.
2. THE ACCESS EASEMENT IN CASE #84-07-A-147-APL WAS CREATED BY THE REGISTRATION OF THE PLAN 2118-13.
3. THE ACCESS EASEMENT IN CASE #84-07-F-569-APL WAS CREATED BY THE REGISTRATION OF THE PLAN 2118-13.
4. THIS SURVEY WAS CONDUCTED TO DETERMINE THE BOUNDARY LINE BETWEEN FARM 7303 AND FARM 9072. THE BOUNDARY LINE WAS ESTABLISHED BY THE REGISTRATION OF THE PLAN 2118-13.

**NOTES:**

1. THE HORIZONTAL CONTROL DATA TO THIS MAP ARE REFERRED TO THE LATEST REGISTRATION OF THE PLAN 2118-13.
2. ALL DIMENSIONS ARE IN METERS.
3. THE FIELD WORK WAS CONDUCTED USING TOTAL STATION INSTRUMENT SET ON THE NORMAL SEA LEVEL.
4. ALL DIMENSIONS ARE SHOWN IN METERS AND ARE REFERRED TO THE NORMAL SEA LEVEL.

**INSCRIPTION SURVEY MAP OF TRACT OF LANDS PROPERTY MERIAL BARCELONETA, LLC**

PROJECT NO: 2118-13  
DATE: 2/14/14  
SCALE: 1:40,000  
SHEET: 2 OF 3

PROPERTY ADDRESS: 104, 842, 5000 ST. JUAN, PUERTO RICO, 00918, P.R.	CLIENT: MERIAL BARCELONETA, LLC
DATE: 2/14/14	PROJECT NO: 2118-13
SCALE: 1:40,000	DATE: 2/14/14
SHEET: 2 OF 3	

**ALBY ROBERTO-RODRIGUEZ & ASSOC.**

1000 ALBY STREET, PUERTO RICO, PUERTO RICO 00906  
TEL: (787) 763-8848 FAX: (787) 763-8848

ALBY ROBERTO-RODRIGUEZ & ASSOC.  
REGISTERED PROFESSIONAL ENGINEERS  
NO. 90 11767

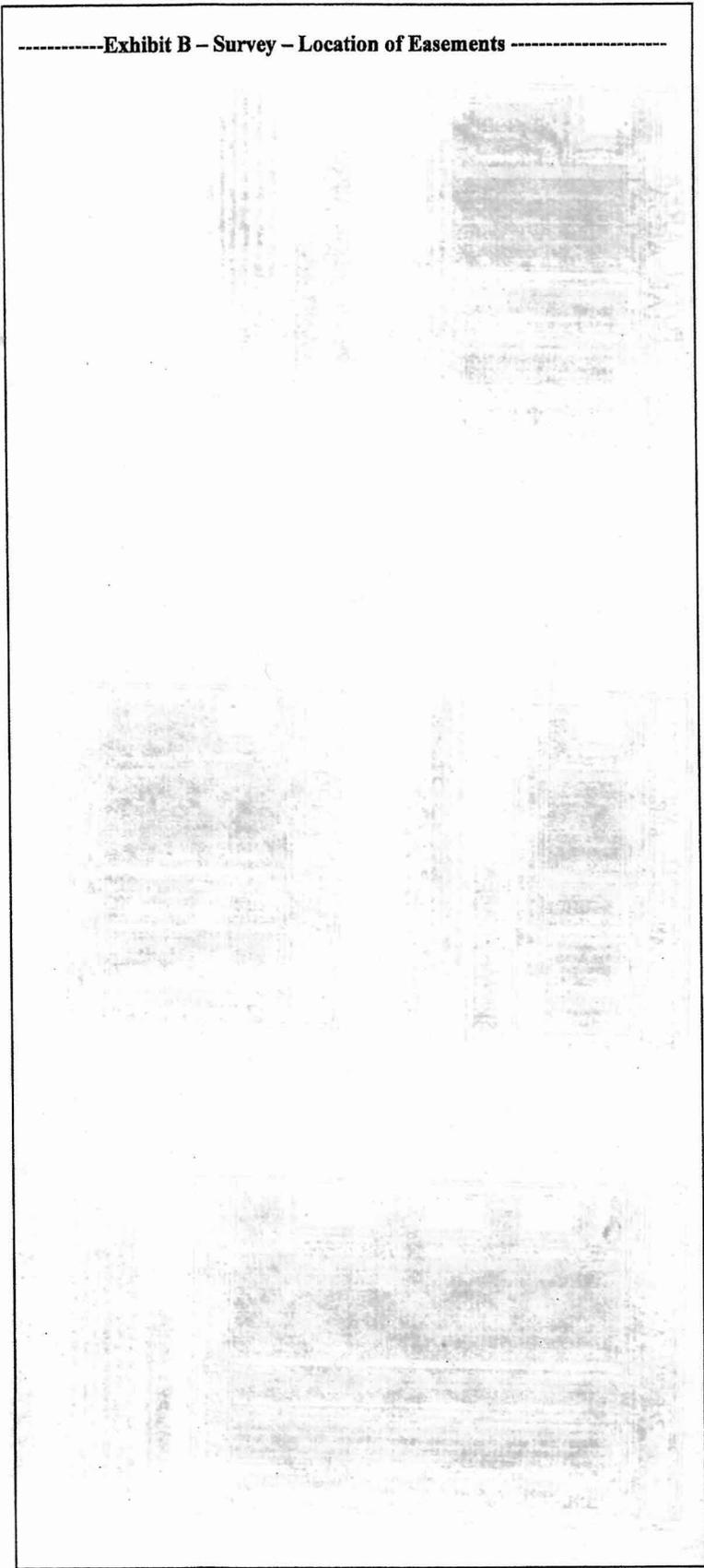
NO.	DESCRIPTION	DATE	BY
01	UPDATED DRAWING	04/09/14	

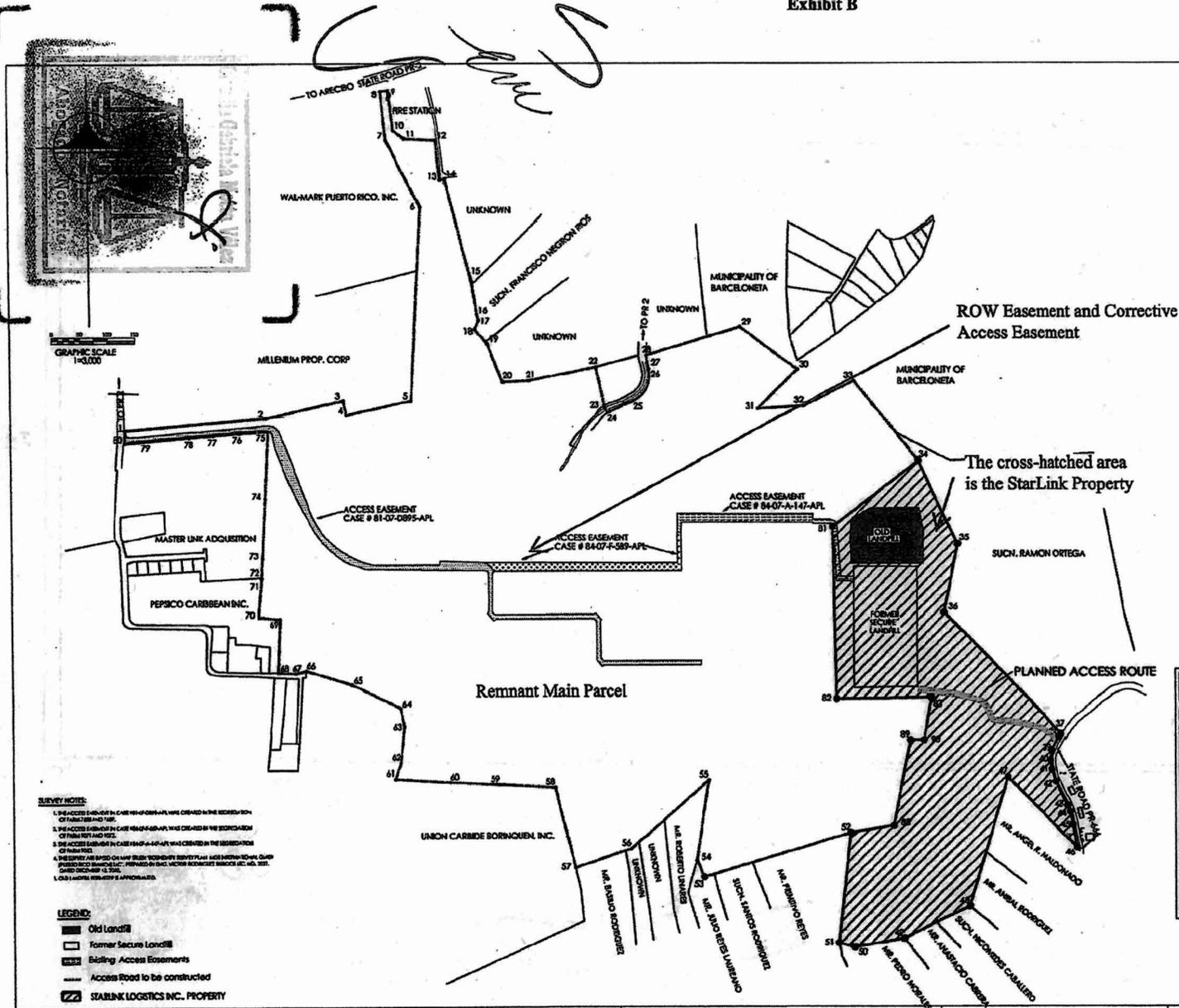
REVISIONS



-----Exhibit B - Survey - Location of Easements-----

S  
ave  
V.





**SURVEY NOTES:**

1. THE ACCESS EASEMENT IN CASE #81-07-0895-APL WAS CREATED IN THE REGISTRATION OF FOLIO 728 AND 748.
2. THE ACCESS EASEMENT IN CASE #84-07-A-147-APL WAS CREATED IN THE REGISTRATION OF FOLIO 871 AND 872.
3. THE ACCESS EASEMENT IN CASE #84-07-A-147-APL WAS CREATED IN THE REGISTRATION OF FOLIO 871.
4. THE EASEMENT AND EASEE ARE SUBJECT TO THE SUBSEQUENT SURVEY PLAN AND METROLOGICAL DATA PROVIDED BY STARLINK LOGISTICS INC. PROPERTY AND ACCESS EASEMENT SURVEY INC. AND DATED OCTOBER 13, 2010.
5. OLD LANDFILL APPROXIMATE.

**LEGEND:**

- Old Landfill
- Former Secure Landfill
- Existing Access Easements
- Access Road to be constructed
- STARLINK LOGISTICS INC. PROPERTY



LOCATION PLAN  
SCALE = 1:10,000



The cross-hatched area is the StarLink Property

COORDENADAS	COORDENADAS	COORDENADAS	PTO	NUMERO	COORDENADAS	DESCRIPCION
1000000	1000000	1000000	1	1	1000000	1000000
1000000	1000000	1000000	2	2	1000000	1000000
1000000	1000000	1000000	3	3	1000000	1000000
1000000	1000000	1000000	4	4	1000000	1000000
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1000000	1000000	1000000	99	99	1000000	1000000
1000000	1000000	1000000	100	100	1000000	1000000

AREA = 165,683,787 SQUARE METERS = 42,1340 HECTARES  
 AREA = 1,782,528,636 SQUARE FEET = 40,9212 ACRES

**BOUNDARY AND SEGREGATION SURVEY MAP OF TRACT OF LANDS PROPERTY STARLINK LOGISTICS INC.**

**NOTES:**

1. THE BOUNDARY SURVEY WAS MADE ON THE DAY AND AT THE PLACE INDICATED IN THE METROLOGICAL DATA.
2. ALL DIMENSIONS ARE IN METERS.
3. THE FIELD WORK WAS REALIZED USING TOTAL STATION LEICA SET 54.
4. ALL DIMENSIONS ARE GIVEN IN METERS AND ARE REFERRED TO THE MEAN SEA LEVEL DATUM (MSLD).

**AR** ALEX RODRIGUEZ-RODRIGUEZ & ASSOC.  
 8100 ALPES STREET, PUERTO RICO, PUERTO RICO 00926  
 TEL. (787) 703-0540 & 703-0945 FAX (787) 703-8025

PROJECT NO. 2015-10 APP NUMBER 2015-10 SHEET 1  
 DRAWING NO. 2015-10-01  
 SCALE 1:3,000 DATE 5/10/2015 1 OF 1

ALEX RODRIGUEZ SURVEYOR LIC. NO. 11747

NO.	DESCRIPTION	BY	DATE	SM	DESCRIPTION	BY	DATE
01	UPDATED DRAWING	A/R	05/07/14				
02	UPDATED DRAWING	A/R	04/20/14				
03							
04							

**REVISIONS**

-----Exhibit C - Second Amendment to Access Agreement-----

-----See attached Exhibit II, above-----

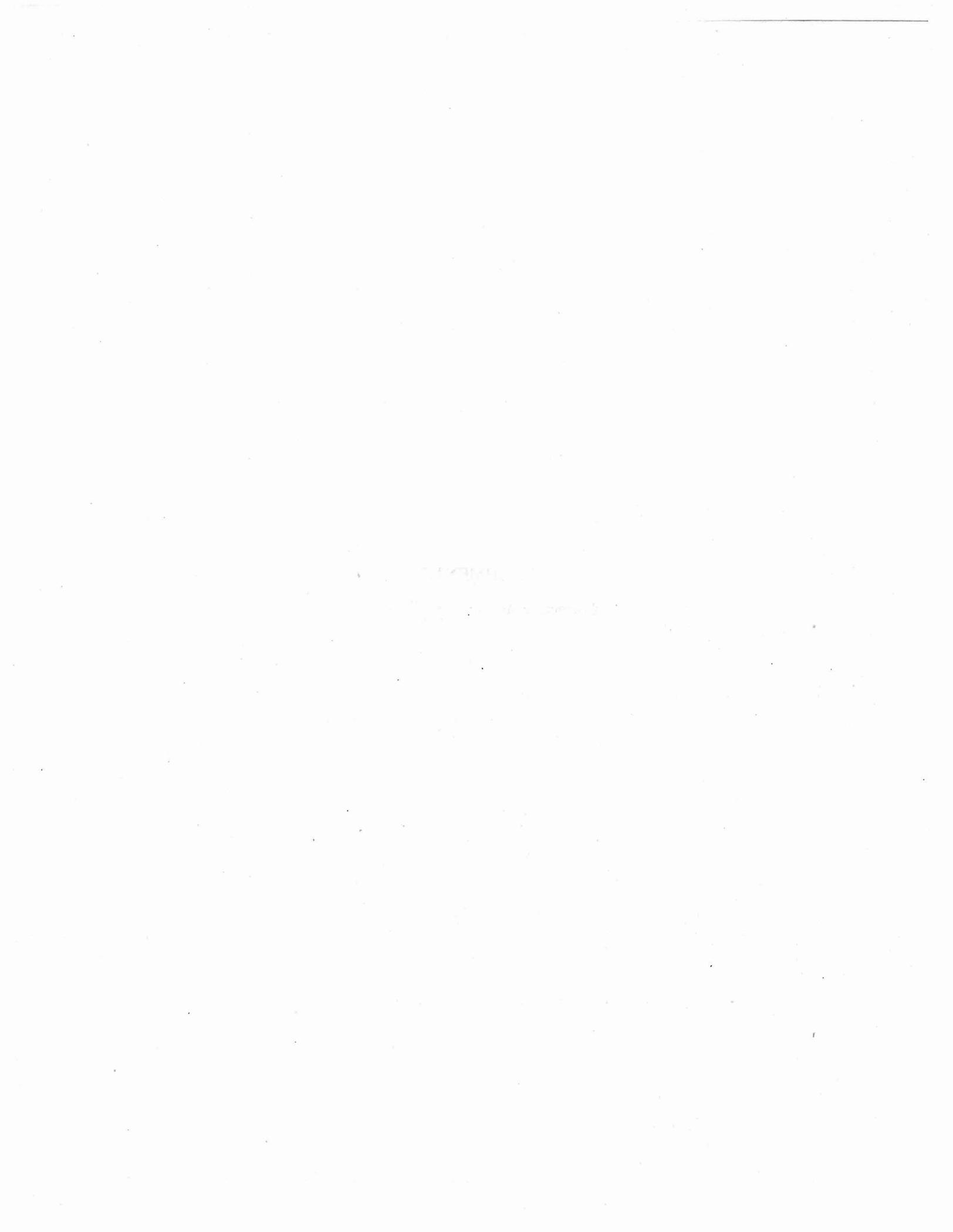
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**ATTACHMENT 5**  
**Corrective Action Work Plans**

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## ATTACHMENT 5

### **RCRA FACILITY INVESTIGATION SCOPE OF WORK**

#### **PURPOSE**

The purpose of this RCRA Facility Investigation ("RFI") is to determine the nature and extent of releases of hazardous wastes or hazardous constituents from regulated units, solid waste management units, and other source areas at the facility, and to gather all necessary data to support the environmental indicator determinations and a Corrective Measures Study. The RFI includes the collection of site specific data to evaluate any human health and/or ecological impacts of contamination from the site. The Respondent shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA facility investigation.

#### **SCOPE**

The RCRA Facility Investigation consists of four tasks:

#### **TASK I: DESCRIPTION OF CURRENT CONDITIONS**

- A. Facility Background
- B. Nature and Extent of Contamination
- C. Implementation of Interim Measures
- D. Environmental Indicator Assessment

#### **TASK II: RFI WORKPLAN REQUIREMENTS**

- A. Project Management Plan
- B. Data Collection Quality Assurance Project Plan
- C. Data Management Plan
- D. Community Relations Plan

#### **TASK III: RCRA FACILITY INVESTIGATION**

- A. Environmental Setting
- B. Source Characterization
- C. Contamination Characterization
- D. Potential Receptor Identification
- E. Risk Assessment
- F. Data Analysis

**TASK IV: REPORTS**

- A. Description of Current Conditions
- B. RFI Workplan
- C. RFI Report
- D. Progress Reports

**TASK I: DESCRIPTION OF CURRENT CONDITIONS**

The Respondent shall submit for EPA approval a report providing the background information pertinent to the facility. This report shall include information gathered during any previous investigations, inspections, interim measure activities and any other relevant data, which helps to identify potential sources of contamination and characterize the current site conditions. In addition, this report shall include an environmental indicator assessment to evaluate potential current human exposures to contamination and to assess whether any contaminated groundwater plumes are migrating.

**A. Facility Background**

The Respondent's report shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage, or disposal of solid and hazardous waste. The Respondent's report shall include:

1. Map(s) depicting the following:
  - a. General geographic location;
  - b. Property lines, with the owners of all adjacent property clearly indicated;
  - c. Topography (with a contour interval of 10 feet and a scale of 1 inch = 100 feet), waterways, all wetlands, floodplains, water features, drainage patterns;
  - d. All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;
  - e. All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980;
  - f. All known past solid or hazardous waste treatment, storage, or disposal areas and all known spill, fire, or other accidental release locations

regardless of whether they were active on November 19, 1980;

- g. All known past and present product and waste underground tanks or piping;
- h. Surrounding land uses (residential, commercial, agricultural, recreational); and
- i. Location of all production and ground water monitoring wells at and in the vicinity of the site. These wells shall be clearly labeled. Ground and top of casing elevations shall be included (these elevations may be included as an attachment).

All maps shall be consistent with the requirements set forth in 40 C.F.R. Section 270.14 and be of sufficient detail and accuracy to locate and report all current and future work performed at the site;

- 2. History and description of ownership and operation; solid and hazardous waste generation; and treatment, storage, and disposal activities at the facility;
- 3. Approximate dates or periods of past product and waste spills, identification of the materials spilled, the amount spilled, the location of the spills, and a description of the response actions conducted (local, state, or Federal response units or private parties), including any inspection reports or technical reports generated as a result of the response; and
- 4. Summary of past permits requested and/or received, any enforcement actions and their subsequent responses.

B. Nature and Extent of Contamination

The Respondent's report shall describe the existing information on the nature and extent of contamination.

- 1. The Respondent's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spill areas, and other suspected source areas of contamination. For each area, the Respondent shall identify the following:
  - a. Location of unit/area (which shall be depicted on a facility map);
  - b. Quantities of solid and hazardous wastes;

- c. Hazardous waste or hazardous constituents, to the extent known; and
  - d. Identification of areas where additional information is necessary.
2. The Respondent shall prepare an assessment and description of the existing degree and extent of contamination. This should include:
- a. Available monitoring data and qualitative information on locations and levels of contamination at the facility;
  - b. All potential migration pathways including information on geology, soils, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and
  - c. Potential impact(s) on human health and the environment, including demography, ground water and surface water use, and land use.

C. Implementation of Interim Measures

The Respondent's report shall document interim measures which were, or are, being undertaken at the facility. This report shall include:

1. Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
2. Design, construction, operation, and maintenance requirements;
3. Schedules for design, construction, and monitoring; and
4. Schedule for progress reports.

D. Environmental Indicator Assessment

The Respondent shall assess whether the current data supports achievement of EPA's Environmental Indicators. The Respondent shall complete EPA's Environmental Indicator Assessment Forms which are included as Attachment G, and identify any information needed to complete the forms.

**TASK II: RFI WORKPLAN REQUIREMENTS**

The Respondent shall prepare a RCRA Facility Investigation Workplan. This RFI Workplan shall include several components described below. During the RCRA Facility Investigation, it

may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility-specific situation. The RFI Workplan shall include the following:

A. Project Management Plan

The Respondent shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, and personnel. The Project Management Plan will also include at a minimum:

1. a description of personnel qualifications performing or directing the RFI, including contractor personnel.
2. the overall management approach to the RCRA Facility Investigation
3. a proposed strategy to meet the Environmental Indicator goals.

B. Data Collection Quality Assurance Project Plan

The Respondent shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

1. The Data Collection Strategy section of the Data Collection Quality Assurance Project Plan shall include, but not be limited to, the following:
  - a. Description of the intended uses for the data and of the necessary level of precision and accuracy for these intended uses;
  - b. Description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;
  - c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Examples of factors which shall be considered and discussed include:
    - i) Environmental conditions at the time of sampling;
    - ii) Number of sampling points;

- iii) Representativeness of selected media; and
  - iv) Representativeness of selected analytical parameters.
- d. Description of the measures to be taken to assure that the following data sets can be compared to each other:
- i) RFI data generated by the Respondent over some time period;
  - ii) RFI data generated by an outside laboratory or consultant versus data generated by the Respondent;
  - iii) Data generated by separate consultants or laboratories; and
  - iv) Data generated by an outside consultant or laboratory over some time period.
- e. Details relating to the schedule of and information to be provided in quality assurance reports. The reports should include, but not be limited to:
- i) Periodic assessment of measurement data accuracy, precision, and completeness;
  - ii) Results of performance audits;
  - iii) Results of system audits;
  - iv) Significant quality assurance problems and recommended solutions; and
  - v) Resolutions of previously stated problems.
2. The Sampling section of the Data Collection Quality Assurance Project Plan shall discuss:
- a. Selecting appropriate sampling locations, depths, etc.;
  - b. Providing a statistically sufficient number of sampling sites;
  - c. Measuring all necessary ancillary data;

- d. Determining conditions under which sampling should be conducted;
  - e. Determining which media are to be sampled (e.g., ground water, air, soil, sediment, etc.);
  - f. Determining which parameters are to be measured and where;
  - g. Selecting the frequency of sampling and length of sampling period;
  - h. Selecting the types of sample (e.g., composites vs. grabs) and number of samples to be collected;
  - i. Documenting field sampling operations and procedures, including:
    - i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters and adsorbing reagents);
    - ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
    - iii) Documentation of specific sample preservation method;
    - iv) Calibration of field devices;
    - v) Collection of replicate samples;
    - vi) Submission of field-biased blanks, where appropriate;
    - vii) Potential interferences present at the facility;
    - viii) Construction materials and techniques associated with monitoring wells and piezometers;
    - ix) Field equipment listing and sample containers;
    - x) Sampling order; and
    - xi) Decontamination procedures.
  - j. Selecting appropriate sample containers;
  - k. Sample preservation; and
-

1. Chain-of-custody, including:
  - i) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
  - ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.
  
3. The Field Measurements section of the Data Collection Quality Assurance Project Plan shall discuss:
  - a. Selecting appropriate field measurement locations, depths, etc.;
  - b. Providing a statistically sufficient number of field measurements;
  - c. Measuring all necessary ancillary data;
  - d. Determining conditions under which field measurement should be conducted;
  - e. Determining which media are to be addressed by appropriate field measurements (e.g., ground water, air, soil, sediment, etc.);
  - f. Determining which parameters are to be measured and where;
  - g. Selecting the frequency of field measurement and length of field measurement periods; and
  - h. Documenting field measurement operations and procedures, including:
    - i) Procedures and forms for recording raw data and the exact location, time, and facility-specific considerations associated with the data acquisition;
    - ii) Calibration of field devices;
    - iii) Collection of replicate measurements;
    - iv) Submission of field-biased blanks, where appropriate;
    - v) Potential interferences present at the facility;
    - vi) Construction materials and techniques associated with

monitoring wells and piezometers used to collect field data;

- vii) Field equipment listing;
- viii) Order in which field measurements will be made; and
- ix) Decontamination procedures.

4. The Sample Analysis section of the Data Collection Quality Assurance Project Plan shall specify the following:

- a. Chain-of-custody procedures, including:
    - i) Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, to obtain documents of shipment, and to verify the data entered onto the sample custody records;
    - ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
    - iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersment for analysis.
  - b. Sample storage;
  - c. Sample preparation methods;
  - d. Analytical procedures, including:
    - i) Scope and application of the procedure;
    - ii) Sample matrix;
    - iii) Potential interferences;
    - iv) Precision and accuracy of the methodology; and
    - v) Method detection limits.
  - e. Calibration procedures and frequency;
-

- f. Data reduction, validation, and reporting;
- g. Internal quality control checks, laboratory performance and systems audits, and frequency, including:
  - i) Method blank(s);
  - ii) Laboratory control sample(s);
  - iii) Calibration check sample(s);
  - iv) Replicate sample(s);
  - v) Matrix-spiked sample(s);
  - vi) "Blind" quality control sample(s);
  - vii) Control charts;
  - viii) Surrogate samples;
  - ix) Zero and span gases; and
  - x) Reagent quality control checks.

A performance audit may be conducted by EPA on the laboratories selected by the Respondent. If EPA requires, this audit must be completed and approved prior to the facility investigation.

- h. Preventive maintenance procedures and schedules;
- i. Corrective action (for laboratory problems); and
- j. Turnaround time.

C. Data Management Plan

The Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This Plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. The data record shall include the following:
    - a. Unique sample or field measurement code;
    - b. Sampling or field measurement location and sample or measurement type;
    - c. Sampling or field measurement raw data;
    - d. Laboratory analysis identification number;
    - e. Property or component measured; and
    - f. Result of analysis (e.g., concentration).
  2. Tabular displays shall be used to present the following data:
    - a. Unsorted (raw) data;
    - b. Results for each medium, or for each constituent monitored;
    - c. Data reduction for statistical analysis;
    - d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
    - e. Summary data.
  3. Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.) shall be used to present the following data:
    - a. Display sampling location and sampling grid;
    - b. Indicate boundaries of sampling area and areas where more data are required;
    - c. Display levels of contamination at each sampling location for each sampling event;
    - d. Display geographical extent of contamination;
    - e. Display contamination levels, averages, and maxima;
-

- f. Illustrate changes in concentration in relation to distance from the source, time, depth, or other parameters; and
- g. Indicate features affecting intramedia transport and show potential receptors.

D. Community Relations Plan

The Respondent shall prepare a plan for the dissemination of information to the public regarding investigation activities and results. It shall also include a summary fact sheet for EPA to post on EPA's web site. At a minimum, Respondent shall provide EPA with an update to the fact sheet annually.

**TASK III: FACILITY INVESTIGATION**

The Respondent shall conduct investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of contamination (Contamination Characterization); identify actual or potential receptors, and determine the impact(s) of contamination on human health and/or ecological receptors (Risk Assessment). For reporting of the ecological assessment refer to "The Risk Assessment Volume II Manual," [EPA/540/1-89/002 and 001, March 1989].

The investigation should result in data of adequate technical quality to support an environmental indicator determination and the development and evaluation of the corrective measures alternative(s) during the Corrective Measures Study.

The site investigation activities shall follow the plans set forth in Task II. All sampling and analyses shall be conducted in accordance with the Data Collection Quality Assurance Project Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

The Respondent shall prepare an analysis and summary of the RCRA Facility Investigation. The report shall describe the nature and extent of contamination, potential threat(s) to human health and/or the environment, and shall support the Corrective Measures Study.

A. Environmental Setting

The Respondent shall collect information to supplement and verify existing information on the environmental setting at the facility. The Respondent shall characterize the following:

1. Hydrogeology - The Respondent shall conduct a program to evaluate hydrogeologic conditions at the facility. Such characterization typically includes, but is not limited to, the following information:

- a. **Description of the regional and facility-specific geologic and hydrogeologic characteristics affecting ground water flow beneath the facility, including:**
    - i) **Regional and facility-specific stratigraphy: description of strata, including strike and dip, and identification of stratigraphic contacts;**
    - ii) **Structural geology: description of local and regional structural features (e.g., folding, faulting, jointing);**
    - iii) **Depositional and erosional history;**
    - iv) **Identification and characterization of recharge and discharge areas;**
    - v) **Regional and facility-specific ground water flow patterns;**
    - vi) **Facility-specific ground water flow patterns in the saturated soil horizon, the shallow bedrock aquifer, and the deep bedrock aquifer systems; and**
    - vii) **Characterization of seasonal variations in each ground water flow regime.**
  - b. **Analysis of any topographic features that might influence the ground water flow system.**
  - c. **Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:**
    - i) **Hydraulic conductivity and porosity (total and effective);**
    - ii) **Lithology, grain size, sorting, and degree of cementation;**
    - iii) **Interpretation of hydraulic interconnections between saturated zones; and**
    - iv) **Attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).**
-

- d. Based on field studies and cores, structural geology and hydrogeologic cross sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways, identify:
- i) Sand and gravel deposits in unconsolidated deposits;
  - ii) Zones of fracturing or channeling in unconsolidated deposits;
  - iii) Zones of high permeability or low permeability that might direct and/or restrict the flow of contaminants;
  - iv) The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs; and
  - v) Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration, including perched zones of saturation.
- e. Based on data obtained from ground water monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source(s), a representative description of water level or fluid pressure monitoring, including:
- i) Water-level contour and/or potentiometric maps;
  - ii) Hydrologic cross-sections showing vertical gradients;
  - iii) The flow system, including the vertical and horizontal components of flow; and
  - iv) Any temporal changes in hydraulic gradients, for example, due to seasonal influences.
- f. Description of man-made influences that may affect the hydrogeology of the site, identifying:
- i) Active and inactive local water supply and production wells with an approximate schedule of pumping; and
  - ii) Man-made hydraulic structures (pipelines, french drains,

ditches, unlined ponds, septic tanks, NPDES outfalls, retention areas, etc.).

2. Soils - The Respondent shall conduct a program to fully characterize the soil and rock units at the site. Such characterization typically includes, but is not limited to, the following information:
    - a. Soil Conservation Service (SCS) soil classification;
    - b. Surface soil distribution;
    - c. Soil profile, including American Standard Test Method (ASTM) classification of soils;
    - d. Transects of soil stratigraphy;
    - e. Hydraulic conductivity (saturated and unsaturated);
    - f. Relative permeability;
    - g. Bulk density;
    - h. Porosity;
    - i. Soil sorptive capacity;
    - j. Cation exchange capacity (CEC);
    - k. Soil organic content;
    - l. Soil pH;
    - m. Particle size distribution;
    - n. Depth of water table;
    - o. Moisture content;
    - p. Effect of stratification on unsaturated flow;
    - q. Infiltration;
    - r. Evapotranspiration;
-

- s. Storage capacity;
  - t. Vertical flow rate; and
  - u. Mineral content.
3. Surface Water and Sediment - The Respondent shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterization typically includes, but is not limited to, the following information:
- a. Description of the temporal and permanent surface water bodies including:
    - i) For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
    - ii) For impoundments: location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment;
    - iii) For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, and flooding tendencies (i.e., 100-year event); and
    - iv) Drainage patterns.
  - b. Description of the chemistry of the natural surface water and sediments (e.g. pH, total organic carbon).
  - c. Description of sediment characteristics, including:
    - i) Deposition area(s);
    - ii) Thickness profile; and
    - iii) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH)
4. Air - The Respondent shall provide information characterizing the climate in the vicinity of the facility. Such characterization typically includes, but is not limited to, the following information:
- a. Description of the following parameters:

- i) Annual and monthly rainfall averages;
  - ii) Monthly temperature averages and extremes;
  - iii) Wind speed and direction; and
  - vi) Evaporation data.
- b. Description of topographic and man-made features which affect air flow and emission patterns, including:
- i) Ridges, hills, or mountain areas;
  - ii) Canyons or valleys;
  - iii) Surface water bodies (e.g., rivers, lakes, bays, etc.);
  - iv) Wind breaks and forests; and
  - v) Buildings.

**B. Source Characterization**

The Respondent shall collect analytical data to supplement and update the description prepared pursuant to Task I.B. herein. The data shall completely characterize the wastes and the areas where wastes have been placed or released. This information shall include quantification of the following specific characteristics at each source area and documentation of the procedures used to make the determinations.

1. Source Area Characteristics:
- a. Location of unit/disposal or source area;
  - b. Type of unit/disposal area or cause of source/release;
  - c. Design features;
  - d. Operating practices (past and present);
  - e. Period of operation;
  - f. Age of unit/disposal area;
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- g. General physical condition; and
- h. Method used to close the unit/disposal area.

2. Waste Characteristics:

a. Type of waste/product:

- i) Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing, or reducing agent);
- ii) Quantity; and
- iii) Chemical composition.

b. Physical and chemical characteristics:

- i) Physical form and description (e.g., powder, oily sludge);
- ii) pH;
- iii) General chemical class (e.g., acid, base, solvent);
- iv) Density;
- v) Viscosity;
- vi) Solubility in water;
- vii) Cohesiveness of the waste; and
- viii) Vapor pressure.

c. Migration and dispersal characteristics of the waste/product:

- i) Sorption;
- ii) Biodegradability, bioconcentration, biotransformation; and
- iii) Chemical transformations.

C. Contamination Characterization

The Respondent shall collect analytical data on ground water, soils, surface water, sediment, and vapor contamination in the vicinity of the facility. This data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Respondent shall address the following types of contamination at the facility:

1. Ground Water Contamination - The Respondent shall conduct a ground water investigation to fully characterize all plumes of contamination at the facility and document the procedures used to characterize contaminant plume(s), (e.g., geophysics, modeling, pump tests, slug tests, nested piezometers). This investigation shall, at a minimum, provide the following information:
  - a. Specific origin (source) of each contaminant plume;
  - b. Description of the full horizontal and vertical extent of each immiscible or dissolved plume(s) originating from the facility;
  - c. Horizontal and vertical direction of contaminant movement;
  - d. Velocity of contaminant movement;
  - e. Horizontal and vertical concentration profiles of hazardous constituents;
  - f. Evaluation of factors influencing the plume movement; and
  - g. Extrapolation of future contaminant movement.
2. Soil Contamination - The Respondent shall conduct and document the procedures used to investigate and characterize the contamination of the soil and rock units in the vicinity of any contaminant release. The investigation shall include the following information:
  - a. Specific origin (source) of each soil contamination area;
  - b. Description of the full vertical and horizontal extent of contamination;
  - c. Description of contaminant and soil chemical properties within the contaminant source area and plume (e.g. contaminant solubility, adsorption, leachability) that might affect contaminant migration and transformation;

- d. Specific contaminant concentrations;
  - e. Velocity and direction of contaminant movement; and
  - f. Extrapolation of future contaminant movement.
3. Surface Water and Sediment Contamination - The Respondent shall conduct and document the procedures used to investigate and characterize contamination in surface water bodies and sediments resulting from contaminant releases at the facility. The investigation shall include, but not be limited to, the following information:
- a. Specific origin (source) of each contaminant release to surface water and sediments;
  - b. Description of likely discharge locations of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in sediments and surface water;
  - c. Horizontal and vertical direction of contaminant movement;
  - d. Evaluation of the physical, biological, and chemical factors influencing contaminant movement;
  - e. Extrapolation of future contaminant movement; and
  - f. Description of the chemistry of the contaminated surface waters and sediments (e.g. pH, total dissolved solids, specific contaminant concentrations).
4. Vapor Contamination - The Respondent shall conduct and document procedures used to investigate and characterize the particulate and gaseous contaminants released into the atmosphere and gases emitted from any hazardous waste and hazardous constituents in the soils and ground water. This investigation shall provide the following information:
- a. Specific origin (source) of each contaminant release to the air;
  - b. Description of the horizontal and vertical extent and velocity of contaminant movement;
  - c. Rate and amount of the release; and

- d. Chemical and physical composition of the contaminants(s) released, including horizontal and vertical concentration profiles.

D. Potential Receptor Identification

The Respondent shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be obtained. The following characteristics shall be identified:

1. Local uses and possible future uses of ground water:
  - a. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
  - b. Location of ground water users, including wells and discharge areas.
2. Local uses and possible future uses of surface waters near the facility:
  - a. Type of use(s) (e.g. domestic municipal, recreational, agricultural) (e.g., potable and lawn/garden watering); and
  - b. Location of designated use area relative to the site and the contamination.
3. Current and potential human use of or access to the facility and adjacent lands, including, but not limited to:
  - a. Types of current and potential uses (e.g. residential, commercial, zoning/deed restrictions); and
  - b. Any use restrictions relative to the site and the contamination.
4. A description of the ecology overlying and in proximity to the facility including, but not limited to:
  - a. Location and size of each identified habitat (e.g., streams, wetlands, forested areas).
  - b. Description and complete species listing of each habitat's plant and animal (both resident and transient) communities.
  - c. Non-jurisdictional delineation of any wetlands present.

- d. Database searches for the potential presence of any federal or state listed threatened, endangered, or rare species.
5. An evaluation of the pollutant impacts on the ecosystems/populations potentially exposed to contamination. This evaluation may be accomplished through the use of toxicity test (acute and chronic) population surveys and literature reviews.
6. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age, sex, and sensitive subgroups.
7. A description of the significance, uniqueness, or protected status of potentially exposed ecosystems.

E. Risk Assessment

The baseline risk assessment is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases (under the assumption of no action). The baseline risk assessment contributes to the site characterization and subsequent development, evaluation, and selection of appropriate response alternatives. There are several steps in the risk assessment process:

1. Human Health
    - a. Determine contaminants of concern: Data collection and evaluation involves gathering and analyzing the site data relevant to the human health evaluation and identifying the substances present at the site that are the focus of the risk assessment process.
    - b. Exposure assessment: Using the procedure outlined in Section D for determining potential receptors, estimate the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways by which humans are potentially exposed. In the exposure assessment, reasonable maximum estimates of exposure are developed for both current and future land- and groundwater-use assumptions.
    - c. Toxicity assessment: This component of the risk assessment considers the types of adverse health effects associated with chemical exposures and the relationship between the magnitude of exposure and adverse effects.
    - d. Risk Characterization: This summarizes and combines outputs of the exposure and toxicity assessments to characterize baseline risk, both in
-

quantitative expressions and qualitative statements. An analysis of uncertainties that affect the level of confidence in the risk estimates should also be included. The analysis should specify the uncertainties associated with each of the four risk assessment steps, and should identify areas where a moderate amount of additional data might significantly improve the basis for selection of a remedial alternative.

## 2. Ecological

- a. **Problem Formulation:** The establishment of the goals, breadth, and focus of the ecological risk assessment, resulting in the ecological conceptual model. The conceptual model describes how the preliminary contaminants of concern might affect the potential ecological receptors, and identifies assessment and measurement endpoints. The problem formulation step is used both for screening purposes and to refine the baseline ecological risk assessment.
- b. **Analysis Phase:** This phase is a combination of the ecological effects assessment and the exposure assessment. The ecological effects assessment includes a final determination of the contaminants of concern, coupled with a compilation of the available toxicity information. The exposure assessment can include estimates of likely exposure scenarios for potential ecological receptors. Alternatively or in addition, the analysis phase may include field measurements of potentially affected populations compared to reference populations, and/or toxicity testing of contaminated media.
- c. **Risk Characterization:** A weight-of-evidence approach is used to interpret results of the field studies and risk estimates for the assessment endpoints. The risk characterization includes a qualitative and quantitative evaluation of the risk results and associated uncertainties.

## F. Data Analysis

The Respondent shall analyze all facility investigation data outlined in this Task and prepare a report. The objective of the data analysis section is to summarize the investigation and demonstrate that a sufficient amount of data in quality (e.g., quality assurance procedures have been followed) and quantity has been collected to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support the Corrective Measures Study.

**TASK IV: REPORTS**

At a minimum, Respondent shall prepare a draft and final reports for the following submissions, except Progress Reports. These reports shall present the results of Tasks I through III. These reports and any others shall be submitted in accordance with the schedule contained in the Administrative Order and the RFI Workplan, upon its approval:

- A. Description of Current Conditions (Task I)
- B. RFI Workplan (Task II)
- C. RFI Report (Task III)
- D. Progress Reports

The Respondent shall, at a minimum, provide the EPA with signed, bimonthly progress reports containing:

1. Description and estimate of the percentage of the RFI and any Interim Measures completed;
2. Summaries of all findings;
3. Summaries of all changes made in the RFI or IMs during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups, or state government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

## ATTACHMENT 5

### **CORRECTIVE MEASURES STUDY SCOPE OF WORK**

#### **PURPOSE**

The purpose of this Corrective Measures Study (CMS) is to develop and evaluate the corrective action alternative(s) and to recommend the corrective measure(s) be taken at the facility. The Respondent shall furnish the personnel, materials, and services necessary to prepare the Corrective Measures Study, except as otherwise specified.

#### **SCOPE**

The Corrective Measures Study consists of four tasks:

#### **TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURES ALTERNATIVE(S)**

- A. Description of Current Situation
- B. Establishment of Media Clean Up Objectives
- C. Identification of the Corrective Measures Alternative or Alternatives

#### **TASK II: EVALUATION OF THE CORRECTIVE MEASURES ALTERNATIVE(S)**

- A. Long-term Effectiveness
- B. Reduction in the Toxicity, Mobility or Volume of Wastes
- C. Short-term Effectiveness
- D. Implementability
- E. Community Acceptance
- F. State Acceptance
- G. Cost

#### **TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE(S)**

#### **TASK IV: REPORTS**

- A. Corrective Measures Report
  - B. Progress Reports
-

**TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURES ALTERNATIVE(S)**

Based on the results of the RCRA Facility Investigation, Respondent shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment, and/or other remediation of the contamination based on the media clean up objective established for the corrective action.

A. Description of Current Situation

Respondent shall submit a summary of, and if necessary an update to, the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. In addition to summarizing the environmental conditions, this section should describe any interim actions implemented or ongoing.

B. Establishment of Media Clean Up Objectives

Respondent, in conjunction with the EPA, shall establish site specific media clean up objectives for the corrective action. These objectives shall be based on EPA guidance, public health and environmental criteria, information gathered during the RCRA Facility Investigation, and the requirements of any applicable Federal statutes. Media clean up objectives include the following components:

1. clean up levels which are the site-specific concentrations in a given media that a final remedy must achieve for the remedy to be considered complete;
2. points of compliance which represents where the media clean up levels are to be achieved; and
3. remediation time frame which is the site-specific schedule for a remedy. It includes both the time frame to construct the remedy and estimate of the time frame to achieve the clean up levels at the point of compliance.

At a minimum, all corrective actions concerning groundwater releases from RCRA regulated units must be consistent with, and as stringent as, those required under 40 C.F.R. 264.100.

C. Identification of the Corrective Measures Alternative(s)

Respondent shall identify the corrective measure alternative or alternatives that are applicable to the facility and that will achieve the media clean up objectives. Technologies can be combined to form the overall corrective action alternative(s). The

alternative or alternatives developed should represent a workable number of option(s). These alternatives should be screened against RCRA's threshold criteria which are:

1. protection of human health and the environment;
2. attainment of media clean up objectives; and
3. controlling the sources.

Alternatives which do not meet these threshold criteria do not warrant further consideration.

## **TASK II: EVALUATION OF THE CORRECTIVE MEASURES ALTERNATIVE(S)**

Respondent shall describe each corrective measures alternative that passes through the initial screening in Task I and evaluate each corrective measures alternative and its components relative to the following evaluation/balancing criteria: long-term effectiveness; implementability; short-term effectiveness; toxicity, mobility and volume reduction; community acceptance; state acceptance; and cost.

### **A. Long-term Effectiveness**

Respondent shall demonstrate the expected effectiveness, reliability and risk of failure of the alternative(s). In this demonstration, Respondent should discuss the following:

1. The effectiveness of the alternative under analogous site conditions;
2. The potential impact resulting from a failure of the alternative, including failures from uncontrollable changes at the site (e.g. heavy rain storms, induced groundwater flow changes from off-site pumping wells); and
3. Estimates of the projected useful life of the overall alternative and of its component technologies.

### **B. Reduction in the Toxicity, Mobility or Volume of Wastes**

As a general goal, EPA prefers remedies which employ techniques, such as treatment technologies, that are capable of eliminating or substantially reducing the inherent potential for the wastes in the contaminated media to cause future environmental releases or other risks to human health and the environment. There may be some situations where achieving substantial reductions in toxicity, mobility or volume may not be practical or even desirable. Examples include large, municipal-type landfills, or wastes such as

unexploded munitions which would be extremely dangerous to handle, and for which short-term risks of treatment outweigh potential long-term benefits.

To the extent practical, Respondent shall estimate how much the corrective measures alternatives will reduce the waste, toxicity, volume and/or mobility. Respondent should complete this assessment through a comparison of initial site conditions to expected post-corrective measure conditions.

C. Short-term Effectiveness

The short-term effectiveness may be particularly relevant when Respondent will be conducting remedial activities in densely populated areas, or where waste characteristics are such that risks to workers or to the environment are high and special protective measures are needed. The Respondent shall consider the following types of factors: fire, explosion, exposure to hazardous substances and potential threats associated with treatment, excavation, transportation and redisposal, or containment of waste material.

D. Implementability

Respondent shall describe the implementability of each corrective measure, including the relative ease of installation (constructability) and the time required to achieve a given level of response. Respondent should include the following type of information:

1. The administrative activities needed to implement the corrective measure alternative (e.g. permits, off-site approvals) and the length of time these activities will take;
2. The constructability, time for implementation, and time for beneficial results;
3. The availability of adequate off-site treatment, storage capacity, disposal services, needed technical services and materials; and
4. The availability of prospective technologies for each corrective measure alternative.

E. Community Acceptance

Respondent is responsible for including community involvement as an ongoing part of the corrective action. This section shall include a discussion of any concerns raised by the community during the investigation. It also shall discuss any aspects associated with an alternative, in which there is a potential for community objections.

F. State Acceptance

The Respondent shall include a discussion of how the specific corrective measures activities will be conducted in compliance with all applicable State regulations (i.e. permit requirements).

G. Cost Estimate

Respondent shall develop an estimate of the cost of each corrective measures alternative. Cost estimates shall include costs for engineering, site preparation, construction, materials, labor, sampling/analysis, waste management/disposal, permitting, health and safety measures, training, operation and maintenance etc.

**TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE(S)**

Respondent shall justify and recommend a corrective measures alternative based on an evaluation of the balancing criteria. Such a recommendation shall include a description and supporting rationale for the proposed remedy, including how it will achieve the media clean up objectives and the proposed remedy's relationship to the decision factors discussed above. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. The Respondent shall highlight tradeoffs among the balancing factors for the alternatives under consideration. EPA will select the corrective measures alternative to be implemented, based on the results of Tasks I and II.

**TASK IV: REPORTS**

A. Corrective Measures Report

Respondent shall prepare a draft and final Corrective Measures Study Report presenting the results of Tasks I through III and recommending a corrective measures alternative.

B. Progress Reports

Respondent will continue to submit bimonthly progress reports. The bimonthly progress reports shall, at a minimum contain the following information:

1. Description and estimate of the percentage of the CMS completed;
2. Summaries of all findings;
3. Summaries of all changes made in the CMS during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups, or state government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

## ATTACHMENT 5

### **CORRECTIVE MEASURES IMPLEMENTATION SCOPE OF WORK**

#### PURPOSE

This Scope of Work ("SOW") sets forth the requirements for the implementation of the design, construction, operation, maintenance, and monitoring of the corrective measure or measures pursuant to the Final Administrative Order on Consent ("Consent Order" or "Order") to which this SOW applies. The work performed under this Order will implement the corrective measures that have been selected by EPA in the Final Decision and Response to Comments ("FDRTC") and any amendments thereto. The Respondent(s) will furnish all personnel, materials, and services necessary for the implementation of the corrective measure or measures.

#### SCOPE

The Corrective Measures Implementation consists of four tasks:

Task I: Corrective Measures Implementation Work Plan

- A. Management Plan
- B. Community Relations Plan
- C. Sampling and Analysis Plan
- D. Corrective Measures Permitting Plan
- E. Supplemental Field Investigation Work Plan

Task II: Corrective Measure Design

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Cost Estimate
- D. Construction Quality Assurance Plan
- E. Health and Safety Plan
- F. Sampling and Analysis Plan/Performance Monitoring Plan
- G. Design Phases

Task III: Corrective Measure Construction

- A. Project Review Meetings
- B. Inspections
- C. CMI Report

Task IV: Reports

- A. Progress Reports and Corrective Measures Assessment Reports
- B. CMI Work Plan
- C. CMI Design Report (Preliminary and Final)
- D. CMI Report

Further specifications of the work outlined in this SOW will be provided in the Corrective Measures Implementation Work Plan and subsequent plans to be reviewed and approved by EPA. Variations from the SOW will be made, if necessary, to fulfill the objectives of the Corrective Measures set forth in the FDRTC and any amendments thereto.

Additional studies may be needed as part of the Corrective Measures Implementation to supplement the available data. At the direction of EPA for any such studies required, the Respondent(s) shall furnish all services, including field work, materials, supplies, plant, labor, equipment, investigations, and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the operation of the required treatment, disposal, containment and/or monitoring system.

#### TASK 1: CORRECTIVE MEASURE IMPLEMENTATION WORK PLAN

The Respondent shall prepare a Corrective Measure Implementation ("CMI") Work Plan. The CMI Work Plan shall outline the design, construction, operation, maintenance and monitoring of all actions taken to implement the Corrective Measures as defined in the Order and the FDRTC and any amendments thereto. This CMI Work Plan will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as necessary during the performance of this Order. The CMI Work Plan shall include the following:

A. Management Plan- The Respondent shall prepare a Management Plan which will address the following items, as necessary and appropriate:

1. Documentation of the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s);
2. Description of the responsibility and authority of all organizations and key personnel involved with the implementation;
3. Description of the qualifications of key personnel directing the CMI, including contractor personnel;
4. Conceptual design of the treatment and/or disposal system or any corrective measures to be installed as set forth in the FDRTC;
5. An outline of proposed field activities necessary to complete the CMI Design including

proposed locations of groundwater monitoring wells and a detailed well development plan;

6. Proposed discharge options for treated groundwater, with a preferred option upon which the CMI Design will be based;
7. Proposed detailed performance criteria for groundwater treatment;
8. A description of how the conceptual design is expected to meet the technical requirements of the FDRTC and any amendments thereto; and
9. Schedule of work including sequence of activities to be performed during the CMI and proposed timing for submittals required during the CMI.

**B. Community Relations Plan -** The Respondent shall submit and/or revise the Community Relations Plan to include any material changes in the level of concern or information needs of the community during design and construction activities. The following activities shall be completed, as necessary and appropriate based on site-specific considerations:

1. The facility Community Relations Plan shall be revised to reflect knowledge of citizen concerns and involvement at this stage of the process, and;
2. Prepare and distribute a public notice and an updated fact sheet at the completion of engineering design, and;
3. Conduct group meetings or information sessions to convey updates on the technical status.

**C. Sampling and Analysis Plan -** Respondent shall submit and/or revise the Sampling and Analysis Plan describing work to be performed during Corrective Measures Design which shall be comprised of:

1. A Quality Assurance Project Plan (QAPjP) including data quality objectives for design phase activities;
2. A Field Sampling Plan describing the sample collection techniques and protocols to be used for any design phase data collection;
4. A Data Management Plan describing the steps to be followed in compiling, organizing, reviewing and reporting data collected in accordance with the Sampling and Analysis Plan, and;

5. A Supplemental Field Investigation Work Plan describing the rationale, protocols and methodologies for any additional hydrogeologic investigations or other field work that may be necessary for the proper design of the remedial systems set forth in the FDRTC. The work plan shall include an expeditious schedule for the completion and reporting of any such supplemental field work.

D. Corrective Measures Permitting Plan - Respondent shall submit a Corrective Measures Permitting Plan identifying all federal, state, interstate, regional and local permits and approvals required for the implementation of the Corrective Measures required by the Consent Order, and for the implementation of any institutional controls required by the Consent Order. The plan shall also identify all agreements or other arrangements with adjoining landowners, if any, known by Respondent to be necessary for the implementation of the Corrective Measures, including, but not limited to, site access and easement agreements. The plan shall include a schedule indicating the time needed to obtain all such approvals and permits and to enter into such agreements and arrangements. This schedule may be integrated with the design/implementation schedule items.

## TASK II: CORRECTIVE MEASURE DESIGN

The Respondent shall prepare preliminary and final construction plans and specifications to implement the corrective measures at the facility as set forth in the FDRTC and any amendments thereto.

A. Design Plans and Specifications - The Respondent shall develop clear and comprehensive design plans and specifications (in both preliminary and final forms) which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including: (a) compliance with all applicable or relevant environmental and public health standards; (b) minimization of environmental and public health impacts, and; (c) updated schedules, if necessary, from commencement through completion of construction of the CMI.
2. Discussion of the technical factors of importance including: (a) use of currently accepted environmental control measures and technology; (b) the constructibility of the design, and; (c) use of currently accepted construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions.
4. Detailed drawings of the proposed design including qualitative flow sheets and quantitative flow sheets.
5. Tables listing equipment and specifications;

6. Appendices including: (a) sample calculations (one example presented and explained clearly for significant or unique design calculations); (b) results of laboratory or field tests; (c) list of specifications to be provided in full in the Final Design submittal, and; (d) list (and outline/table of contents) of documents and plans to be prepared and submitted with Final Design.

**B. Operation and Maintenance Plan** - The Respondent shall prepare or revise the Operation and Maintenance ("O&M") Plan to cover both the implementation and long term maintenance of the corrective measure(s). The O&M Plan shall identify and describe the processes to occur, submissions required during O&M, and schedule for O&M activities consistent with remedial objectives set forth in the FDRTC and any amendments thereto. The O & M Plan shall include, but not be limited to the following elements:

1. Description of routine O&M including tasks required to operate and maintain treatment system or other components of corrective measures and a schedule showing frequency and duration of each O & M task.

2. Description of potential operating problems including the procedures to be used to analyze and diagnose potential operation problems, sources of information regarding problems, and common or anticipated trouble-shooting steps and remedies.

3. Description of routine monitoring and laboratory testing including a description of specific monitoring tasks required for the corrective measures, a description of required laboratory tests and their interpretation/reporting, a description of required QA/QC activities and, a schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of alternate O&M to be used should systems fail including alternate procedures to be used to prevent undue hazard and, an analysis of vulnerability and additional resource requirements should a failure occur.

5. Safety plan including description of precautions for specific equipment, etc., for site personnel and, safety tasks required in the event of systems failure.

6. Description of equipment including the identification, lay out and installation of monitoring components, maintenance of site equipment and, replacement schedule for equipment and installed components.

7. Records and reporting mechanisms including daily operating logs, laboratory records and test results, operating and maintenance cost records, mechanism for reporting emergencies, personnel and maintenance records, and progress reports to State and Federal agencies.

An initial O&M Plan shall be submitted simultaneously with the Preliminary (30%) Design

submission, and the Final O&M Plan shall be submitted with the Final Design documents.

C. Cost Estimate - The Respondent shall develop cost estimates of the Corrective Measures set forth in the FDRTC for the purpose of assuring that the Respondent has the financial resources necessary to construct, implement and maintain the corrective measures. The cost estimate developed in the Corrective Measure Study shall be refined and updated to reflect, in current dollars, the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs, as well as any necessary long term monitoring costs.

D. Construction Quality Assurance Plan - The Respondent shall identify and document the framework and components of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection and testing activities; sampling and testing requirements; and documentation and reporting.

E. Health and Safety Plan - The Respondent shall prepare a Health and Safety Plan or modify the Health and Safety Plan developed for the RCRA Facility Investigation and/or Interim Measures activities to address all work to be performed at the facility to implement the corrective measures set forth in the FDRTC.

F. Sampling and Analysis Plan/Performance Monitoring Plan - Respondent shall update the Sampling and Analysis Plan, including the QAPjP, during each phase of Design, as necessary and appropriate, to reflect changes in the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and, documentation and reporting. Additional revisions shall be made, or a separate document prepared (Performance Monitoring Plan) to describe the performance monitoring program that will be used to measure the effectiveness of the corrective measures set forth in the FDRTC. The performance monitoring plan shall describe all sampling, monitoring, data analysis and reporting activities that will be completed to demonstrate the effectiveness of the corrective measures.

G. Design Phases - The design of the corrective measures set forth in the FDRTC should include the phases outlined below:

1. Preliminary (30%) CMI Design

a. The Respondent shall submit the 30% CMI Design Report when the design effort is approximately 30% complete. At this stage the Respondent shall have field verified the existing conditions of the facility. The 30% design shall reflect a level of effort such that the specifications may be reviewed to determine if the final design will provide effective, operable and usable corrective measures. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program. The 30% construction drawings shall reflect organization and clarity.

b. Correlating plans and specifications - The plans and specifications to be included in the 30% CMI Design Report shall demonstrate that the Respondent has coordinated and cross-checked the specifications and drawings and, completed the proofing of the edited specifications and required cross-checking of all drawings and specifications.

c. Equipment start-up and operator training - The Respondent shall prepare and include in the technical specifications governing treatment and/or disposal systems, contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been successfully accomplished.

## 2. Final (90%) CMI Design

The Final CMI Design Report shall consist of the Final Design Plans and Specifications (90 - 100% complete), the Respondent's Final Cost Estimate, the Final Operation and Maintenance Plan, Final Construction Quality Assurance Plan, Final Project Schedule, and Final Health and Safety Plan. The quality of the design documents should be such that the Respondent could include them in a bid package and invite contractors to submit bids for the construction project.

### TASK III: CORRECTIVE MEASURE CONSTRUCTION

Following EPA approval of the Final CMI Design Report, the Respondent shall implement construction in accordance with procedures, specifications, and schedules in the EPA-approved Final CMI Design Report and the EPA approved CMI Work Plan. During the Construction Phase, Respondent will continue to submit periodic progress reports. The Respondent shall also implement the elements of the approved Construction Quality Assurance Plan, Sampling and Analysis Plan, and O&M plan, as necessary and appropriate.

The Respondent shall conduct the following activities during construction:

A. Preconstruction Inspection and Meeting - The Respondent shall conduct a preconstruction inspection and meeting to:

1. Review methods for documenting and reporting inspection data;
2. Review methods for distributing and storing documents and reports;
3. Review work area security and safety protocol;
4. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
5. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

## B. Inspections

1. Respondent will conduct inspections to monitor the construction and/or installation of components of the corrective measure. Inspections shall verify compliance with all environmental requirements and include, but not limited to, review of air quality and emissions monitoring records, waste disposal records (e.g. RCRA transportation manifests), etc, as applicable. Inspections will also ensure compliance with all health and safety procedures. Treatment and/or disposal equipment will be operationally tested by the Respondent. The Respondent will certify that the equipment has performed to meet the purposes and intent of the specifications. Retesting will be completed where deficiencies are revealed.

2. When all construction is complete, the Respondent shall notify EPA for the purposes of conducting a final inspection. The final inspection will consist of a walk through inspection of the project site. The inspection is to determine whether the project is complete and consistent with contract documents and the EPA approved corrective measures. Any outstanding construction items will be identified and noted. If necessary, Respondent shall notify EPA upon completion of any outstanding construction items and another final inspection consisting of a walk-through inspection of the project site to confirm all outstanding items have been resolved.

C. CMI Report - Upon completion of construction and an initial period of performance monitoring, and in accordance with the schedule included in the EPA-approved CMI Workplan and the EPA-approved Final CMI Design Report, Respondent will prepare and submit a CMI Report. The CMI Report shall describe activities performed during construction, provide actual specifications of the implemented remedy, and provide a preliminary assessment of CMI performance.

## TASK IV: REPORTS

The Respondent shall prepare plans, drawings, specifications, and reports as set forth in Tasks I through III to document the design, construction, operation, maintenance, and monitoring of the corrective measure. The documentation shall include, but not be limited to the following:

### A. Progress Reports and Corrective Measures Assessment Reports

Quarterly - The Respondent shall provide the EPA with signed, quarterly progress reports containing:

1. A description of the work performed during the preceding monitoring interval and estimate of the percentage of the CMI completed;

2. Summaries of all findings;
3. Summaries of all changes made in the CMI during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;
5. Summaries of system performance during the reporting period including a summary of all problems or potential problems encountered or anticipated during the reporting period;
6. Actions taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

**Annual** - The Respondent shall provide EPA with signed annual progress reports and/or Corrective Measures Assessment Reports (including 5 Year Assessment Report) containing:

1. A narrative summary of principal activities conducted during the reporting period;
2. Graphical or tabular presentations of monitoring data, including but not limited to average monthly system pumping rates and throughput, efficiency, groundwater levels and flow direction, and groundwater quality;
3. A schedule of sampling and field activities to be performed and reported in the following year, and
4. An O&M Evaluation or Corrective Measures Assessment Report assessing the performance of the corrective measure over time. The O & M Evaluation/Assessment Report shall include:
  - a. Summarized data representing corrective measure performance during respective two-year intervals;
  - b. Any proposed changes to the corrective measure and summary of previous changes;
  - c. Iso-concentration maps for each contaminant of concern listed in the FDRTC;
  - d. Statistical assessment of the progress of the corrective measure towards achievement of media clean-up standards; and,
  - e. When appropriate, notification that corrective action media clean-up standards have been achieved.

An Annual Progress Report shall not be required for any year in which the Respondent is required to submit a Corrective Measures Five Year Assessment Report.

**B. CMI Work Plan** - The Respondent shall submit a CMI Work Plan as outlined in Task I. The QAPP, included with the CMI Work Plan, will be revised, as appropriate, throughout the CMI.

**C. The Preliminary (30%) CMI Design Report** - The Respondent shall submit a Preliminary (30%) CMI Design Report as outlined in Task II to this SOW.

The 30% CMI Design Report shall include:

1. Draft Design Plans and Specifications reflecting 30% of design work completed to date;
2. Draft O&M Plan, Construction Quality Assurance Plan, and Health and Safety Plan;
3. A preliminary cost estimate; and
4. A revised project schedule.

D. The Final (90%) CMI Design Report - The Respondent shall submit a Final (90%) CMI Design Report as outlined in Task II of this SOW.

The 90% CMI Design Report shall include:

1. A summary of activities performed and data generated during Corrective Measure Design, including results and interpretation of treatability and/or pilot studies;
2. Draft detailed Corrective Measure Design Plans and Specifications reflecting 90% of design work completed to date;
3. Final performance criteria for the corrective measures, consistent with comments to have been provided by EPA on the conceptual design;
4. Proposal of means to evaluate system performance against media cleanup standards listed in the FDRTC and any amendments thereto;
5. A Final O&M Plan, Construction Quality Assurance Plan, and Health and Safety Plan;
6. A revised cost estimate;
7. Revision to the Sampling and Analysis Plan, including the QAPP, to address sampling and performance monitoring activities to be completed during the Corrective Measures Construction Phase, including the sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems; and,
8. Proposed changes to the Project Schedule, if appropriate, with emphasis on the short-term construction schedule.

#### E. CMI Report

The Respondent shall submit the CMI Reports as outlined in Task III to this SOW. The CMI Report shall describe all activities performed during construction, provide actual specifications and as-built drawings of the constructed or implemented remedy, and provide a preliminary assessment of CMI performance. The CMI Report shall include, but not be limited to, the following elements:

1. Synopsis of the corrective measure and certification of the design and construction;
2. Explanation of any modifications to the EPA-approved construction and/or design plans and why these were necessary for the project;
3. Listing of the criteria, established in the EPA-approved CMI Work Plan, for judging whether the corrective measure is functioning properly, and also explaining any modification to

these criteria;

4. Certification by registered professional engineer that the construction is complete, consistent with contract documents and the EPA-approved Final CMI Design, and that the equipment performs to meet the intent of the specifications;

5. Results of Facility monitoring, assessing the likelihood (and approximate time frame) that the corrective measure will meet the media clean-up standards set forth in the FDRTC and any amendment thereto.

This report should include a summary of the daily inspection reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings, unless otherwise agreed to by EPA.

These studies have shown that the...  
1. The first study...  
2. The second study...  
3. The third study...  
4. The fourth study...  
5. The fifth study...

The results of these studies...  
1. The first result...  
2. The second result...  
3. The third result...  
4. The fourth result...  
5. The fifth result...

**ATTACHMENT 6**  
**Site Inspection Log Form**

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**SLLI Barceloneta, Puerto Rico  
Old Landfill  
Annual Inspection Log**



Date: \_\_\_\_\_ Time: \_\_\_\_\_ Weather: \_\_\_\_\_

Component/Potential Concerns	Comments and Recommendations (dimensions, location on map, observations, etc.)	Date and Nature of Repair/Maintenance
<b>Cover System:</b>  Settlement, subsidence, surface water ponding, erosion, rills/gullies, bare areas, cracks, animal burrows, odors.		
<b>Vegetation:</b>  Bare areas, poor vegetation, stressed vegetation, large woody growth, areas of large invasive species, insect/pest disturbance.		
<b>Runoff Conveyance Features:</b>  Erosion, clogging, obstructions, sedimentation, deterioration, subsidence.		
<b>Site Security:</b>  Non-functioning/broken/lost locks, damage to fence, damage to gates, illegible signs, damage to signs, lost signs.		
<b>Site Access Roads:</b>  Erosion, cracks, deterioration, excessive rutting, obstructions, loss of aggregate, sloughing, settlement/potholes.		

Inspector to attach a photographic log with date/time stamp as applicable

Inspector Name: \_\_\_\_\_

Inspector Signature: \_\_\_\_\_

Inspector P.E. No.: \_\_\_\_\_

\_\_\_\_\_  
P.E. SEAL



**ATTACHMENT 7**

**Updated Part A Permit Application (Form 8700-12)**

**Revised August 22, 2019**

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<p><b>United States Environmental Protection Agency</b>  <b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b></p>	
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**1. Reason for Submittal (Select only one.)**

<input type="checkbox"/>	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	Site was a TSD facility and/or generator of $\geq 1,000$ kg of non-acute hazardous waste, $> 1$ kg of acute hazardous waste, or $> 100$ kg of acute hazardous waste spill cleanup in <b>one or more months of the reporting year</b> (or State equivalent LQG regulations)
<input type="checkbox"/>	Notifying that regulated activity is no longer occurring at this Site
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
<input checked="" type="checkbox"/>	Submitting a new or revised Part A Form

**2. Site EPA ID Number**

P	R	D	0	9	0	0	2	8	1	0	1
---	---	---	---	---	---	---	---	---	---	---	---

**3. Site Name**

<b>StarLink Logistics Inc. Facility</b>
---

**4. Site Location Address**

Street Address <b>Bo. Trinidad State Road #2, KM 56.7</b>		
City, Town, or Village <b>Barceloneta</b>	County <b>Barceloneta</b>	
State <b>Puerto Rico</b>	Country <b>United States of America</b>	Zip Code <b>00617</b>

**5. Site Mailing Address**

Same as Location Address

Street Address <b>55 Corporate Drive</b>		
City, Town, or Village <b>Bridgewater</b>		
State <b>New Jersey</b>	Country <b>United States of America</b>	Zip Code <b>08807</b>

**6. Site Land Type**

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> County	<input type="checkbox"/> District	<input type="checkbox"/> Federal	<input type="checkbox"/> Tribal	<input type="checkbox"/> Municipal	<input type="checkbox"/> State	<input type="checkbox"/> Other
---	---------------------------------	-----------------------------------	----------------------------------	---------------------------------	------------------------------------	--------------------------------	--------------------------------

**7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)**

A. (Primary) <b>N/A</b>	C.
B.	D.

**8. Site Contact Information**

Same as Location Address

First Name <b>Michael</b>	MI	Last Name <b>Bogdan</b>
Title <b>President, StarLink Logistics Inc. (SLLI)</b>		
Street Address <b>55 Corporate Drive</b>		
City, Town, or Village <b>Bridgewater</b>		
State <b>New Jersey</b>	Country <b>United States of America</b>	Zip Code <b>08807</b>
Email <b>michael.bogdan@sanofi.com</b>		
Phone <b>(908) 981-5271</b>	Ext	Fax <b>N/A</b>

**9. Legal Owner and Operator of the Site**

**A. Name of Site's Legal Owner**

Same as Location Address

Full Name <b>StarLink Logistics Inc.</b>	Date Became Owner (mm/dd/yyyy) <b>12/6/2016</b>
Owner Type <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other	
Street Address <b>55 Corporate Drive</b>	
City, Town, or Village <b>Bridgewater</b>	
State <b>New Jersey</b>	Country <b>United States of America</b> Zip Code <b>08807</b>
Email <b>michael.bogdan@sanofi.com</b>	
Phone <b>(908) 981-5271</b>	Ext   Fax <b>N/A</b>
Comments	

**B. Name of Site's Legal Operator**

Same as Location Address

Full Name <b>StarLink Logistics Inc.</b>	Date Became Operator (mm/dd/yyyy) <b>12/6/2016</b>
Operator Type <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other	
Street Address <b>55 Corporate Drive</b>	
City, Town, or Village <b>Bridgewater</b>	
State <b>New Jersey</b>	Country <b>United States of America</b> Zip Code <b>08807</b>
Email <b>michael.bogdan@sanofi.com</b>	
Phone <b>(908) 981-5271</b>	Ext   Fax <b>N/A</b>
Comments	

**10. Type of Regulated Waste Activity (at your site)**

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input type="checkbox"/>	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
<input type="checkbox"/>	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
<input type="checkbox"/>	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. <i>Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.</i>	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5. Recycler of Hazardous Waste	
<input type="checkbox"/>	a. Recycler who stores prior to recycling	
<input type="checkbox"/>	b. Recycler who does not store prior to recycling	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/>	a. Small Quantity On-site Burner Exemption	
<input type="checkbox"/>	b. Smelting, Melting, and Refining Furnace Exemption	

**B. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

None						

**C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

None						

**11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**

**A. Other Waste Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Transporter of Hazardous Waste—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Underground Injection Control
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Recognized Trader—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter

**B. Universal Waste Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If “Yes” mark all that apply. Note: Refer to your State regulations to determine what is regulated.
<input type="checkbox"/>	a. Batteries
<input type="checkbox"/>	b. Pesticides
<input type="checkbox"/>	c. Mercury containing equipment
<input type="checkbox"/>	d. Lamps
<input type="checkbox"/>	e. Other (specify) _____
<input type="checkbox"/>	f. Other (specify) _____
<input type="checkbox"/>	g. Other (specify) _____
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

**C. Used Oil Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Used Oil Transporter—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Used Oil Processor and/or Re-refiner—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Processor
<input type="checkbox"/>	b. Re-refiner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. Off-Specification Used Oil Burner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Used Oil Fuel Marketer—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
<input type="checkbox"/>	b. Marketer Who First Claims the Used Oil Meets the Specifications

**D. Pharmaceutical Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals—if “Yes”, mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
<input type="checkbox"/>	a. Healthcare Facility
<input type="checkbox"/>	b. Reverse Distributor
<input type="checkbox"/> Y <input type="checkbox"/> N	2. Withdrawing from operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is no longer an LQG or SQG.

**12. Eligible Academic Entities with Laboratories**—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR 262 Subpart K.

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	A. Opting into or currently operating under 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories— If “Yes”, mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
<input type="checkbox"/>	1. College or University
<input type="checkbox"/>	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/>	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/> Y <input type="checkbox"/> N	B. Withdrawing from 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories.

**13. Episodic Generation**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If “Yes”, you must fill out the Addendum for Episodic Generator?
--	---

**14. LQG Consolidation of VSQG Hazardous Waste**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If “Yes”, you must fill out the Addendum for LQG Consolidation of VSQGs hazardous waste.
--	--

**15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
A. <input type="checkbox"/> Central Accumulation Area (CAA) or <input type="checkbox"/> Entire Facility	
B. Expected closure date: _____ mm/dd/yyyy	
C. Requesting new closure date: _____ mm/dd/yyyy	
D. Date closed : _____ mm/dd/yyyy	
<input type="checkbox"/>	1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)
<input type="checkbox"/>	2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

**16. Notification of Hazardous Secondary Material (HSM) Activity**

<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.
----------------------------	---------------------------------------	---

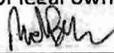
**17. Electronic Manifest Broker**

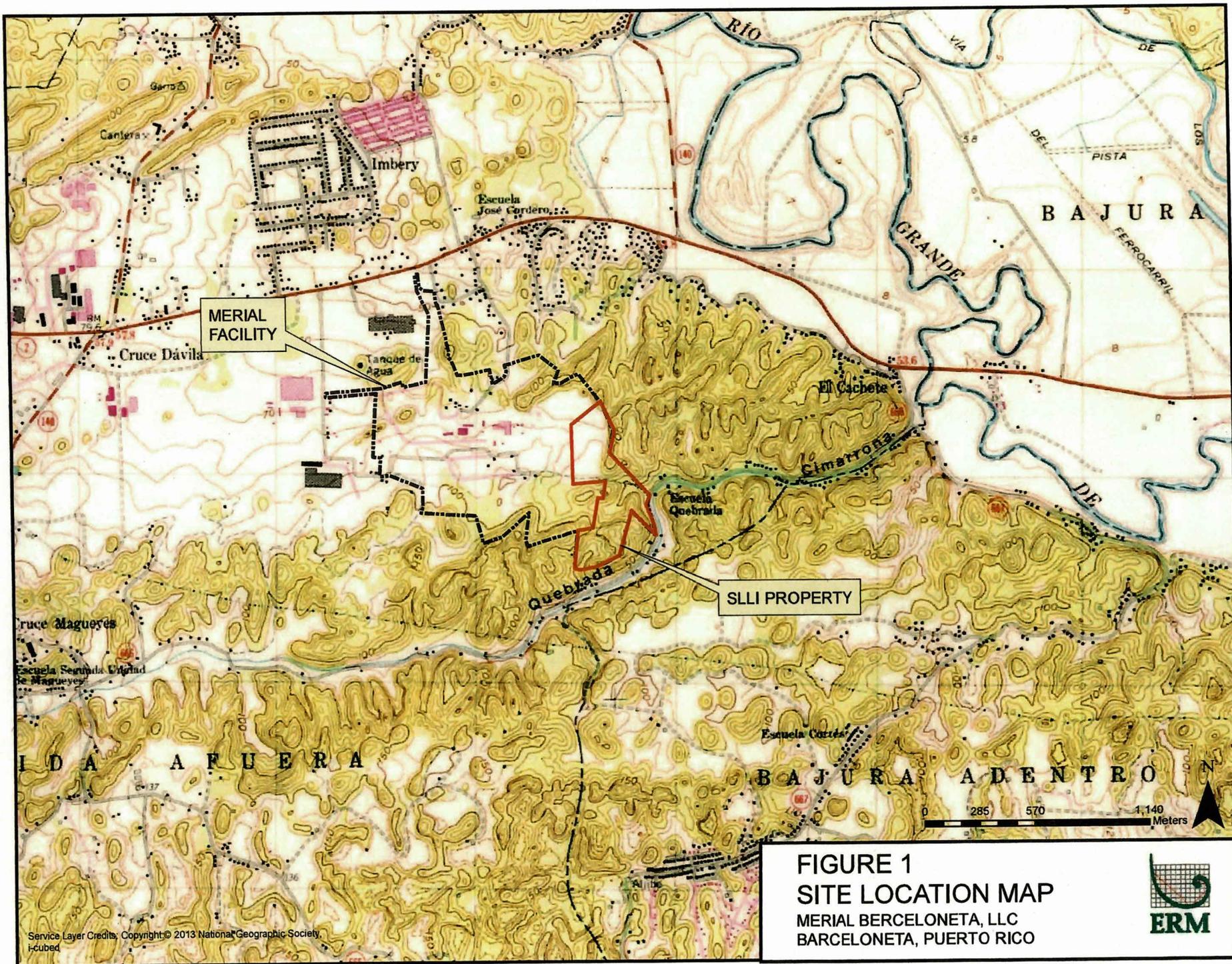
<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?
----------------------------	---------------------------------------	--

**18. Comments** (include item number for each comment)

**Detailed information as to this facility's current and historical operations, current use, and permit status is set forth in detail in Item 11, "Comments," of this facility's Hazardous Waste Permit Part A previously submitted to the Environmental Protection Agency. In brief, this facility does not treat, store, or dispose of hazardous waste. This facility's sole SWMU is a landfill known as the Old Landfill. The Old Landfill last received waste in 1981, and it was permanently closed with a soil cover/cap at that time. The Old Landfill remains subject to certain corrective action requirements in connection with the facility's permit.**

**19. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative 	Date (mm/dd/yyyy) <b>8/22/2019</b>
Printed Name (First, Middle Initial Last) <b>Michael Bogdan</b>	Title <b>President</b>
Email <b>michael.bogdan@sanofi.com</b>	
Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	



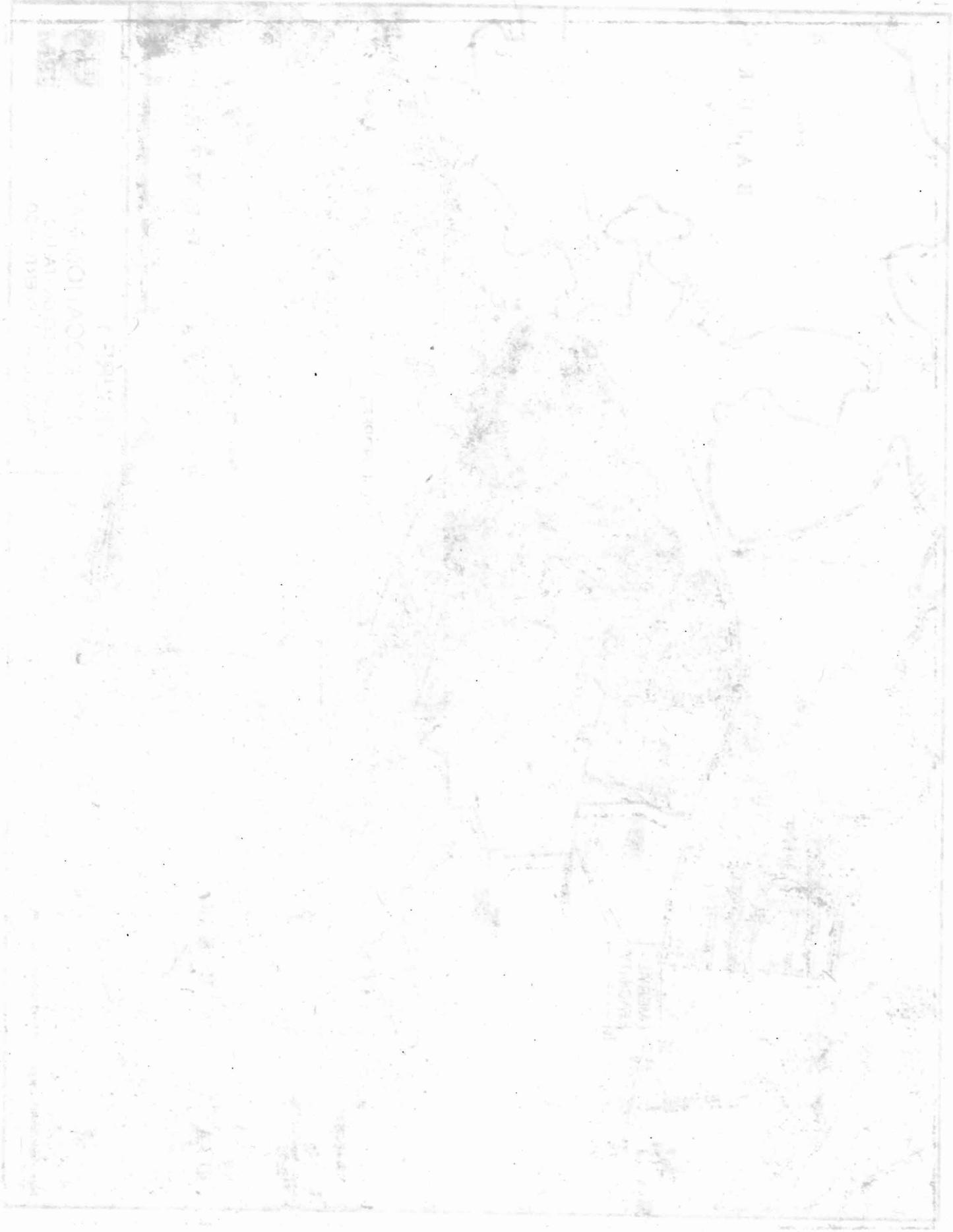
**FIGURE 1**  
**SITE LOCATION MAP**  
 MERIAL BERCELONETA, LLC  
 BARCELONETA, PUERTO RICO



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1914

THE NATIONAL GEOGRAPHIC SOCIETY  
WASHINGTON, D. C.



**ATTACHMENT 8**

**Old Landfill Groundwater Monitoring Wells Closure Plan**

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StarLink Logistics, Inc. (SLLI)  
Barceloneta, Puerto Rico

## Monitoring Well Abandonment and Closure Plan

September 2018  
(Revised July 2019)

**Environmental Resources Management**  
250 Ponce de León Ave.  
City Tower, Suite 1002  
San Juan, PR 00918

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StarLink Logistics, Inc. (SLLI)  
Barceloneta, Puerto Rico

## Monitoring Well Abandonment and Closure Plan

September 2018  
(Revised July 2019)



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**Gary Walters**  
*Partner Senior*



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**Noel Marrero**  
*Project Manager*



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**Vilma Pérez**  
*Geologist*

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## INTRODUCTION, BACKGROUND AND OBJECTIVES

StarLink Logistics, Inc. (SLLI) is in the process of renewing the Resource Conservation and Recovery Act (RCRA) Part B Permit (Permit) previously issued to Merck Sharp & Dohme Quimica de Puerto Rico in July 2006 with respect to the former manufacturing facility located at Trinidad ward, PR-2 Km 56.7 Interior, Barceloneta, Puerto Rico. Since the former manufacturing facility is no longer operational, the Permit renewal is limited to establishing the regulatory framework and operation and maintenance requirements for the post-closure care obligations relating to the closed "Old Landfill" located within the eastern portion of the former Merck facility, now owned by SLLI.

As a result of multiple transactions involving the Barceloneta facility that have occurred since the original RCRA permit was last renewed in 2006, the SLLI property which is the subject of the Permit is limited to that area shown on **Appendix A - Site Location Plan**.

The Barceloneta facility was historically a RCRA hazardous waste treatment, storage and disposal facility (TSDF) operating under EPA ID Number PRD090028101. Permitted hazardous waste management units included an on-site landfill (aka "Secure Landfill") along with other hazardous waste storage or treatment units. Subsequent to the Hazardous and Solid Waste Amendments of 1984 (HSWA), the facility was also subject to RCRA Corrective Action requirements. The Secure Landfill was permanently closed in 1994 by excavation and off-site disposal of all wastes (i.e., "clean closure"). Following extensive decommissioning and decontamination activities in accordance with approved closure plans, all other permitted hazardous waste management units at the facility were granted final "closure" by EPA in correspondence dated March 27, 2017. With respect to the facility's Corrective Action obligations, 37 solid waste management units (SWMUs) were identified in the facility's RCRA Facility Assessment (RFA; EPA, 1986). Through subsequent assessments and investigations, all but the Old Landfill were determined to warrant No Further Action (NFA). The Old Landfill, due to elevated levels of toluene in soil (no groundwater impacts were ever identified) was the only SWMU that was recommended for further evaluation through the RCRA Corrective Measures Study (CMS) process. Operation of the Old Landfill ceased in 1981 and it was permanently closed with a soil cover/cap at that time. The CMS recommended natural bioremediation as the most appropriate remedy for the Old Landfill. Sampling performed in 2016 confirmed the efficacy of natural bioremediation by demonstrating that no contaminants exist within the Old

Landfill at levels in excess of EPA's current health-based criteria. EPA approved the results from the 2016 sampling of the Old Landfill in correspondence dated May 18, 2017.

On December 5, 2017, SLLI representatives met with USEPA personnel to discuss the 2006 Permit renewal conditions. As part of the discussion, SLLI requested to eliminate any further Old Landfill groundwater monitoring requirements. In support of this request, it presented monitoring data showing concentrations below target limits in the groundwater of toluene or other contaminants associated with the Old Landfill operations. By letter dated March 16, 2018, USEPA determined that, subject to public notice and comment, additional groundwater monitoring would not be required for the Old Landfill.

Accordingly, and by means of this written plan which is intended to be included in the public notice for the Permit renewal, SLLI is requesting permanent closure and abandonment of all groundwater monitoring wells associated with the Old Landfill and former Secure Landfill.

## 1.1

### **OBJECTIVES**

The goal of this plan is to describe the procedures to be followed in the formal closure and permanent abandonment of all groundwater-monitoring wells associated with the Old Landfill and former Secure Landfill (**Appendix A**).

Following EPA's approval of this Closure Plan, all monitoring wells associated with the Old Landfill, former Secure Landfill, and the two monitoring wells located inside the BI property will be permanently closed in accordance with applicable regulatory requirements and the procedures described herein.

## 2 *PROPERTY INFORMATION*

### 2.1 *PERSONNEL RESPONSIBLE FOR THE MONITORING WELLS*

For all monitoring wells to be abandoned:

Name: Michael Bogdan  
Title: Director, REM, StarLink Logistics, Inc. (SLLI)  
Telephone: (908) 981-5271  
Location Address: 55 Corporate Drive  
Bridgewater, NJ 08807

### 2.2 *EXISTING CONDITIONS*

A visual inspection conducted on June 28, 2018 by ERM documented 10 monitoring wells in the general vicinity of the Old Landfill and former RCRA landfill and two monitoring wells in the mogotes area (beyond the SLLI property boundary to the south). **Appendix B** includes a figure depicting the location of all wells that are the subject of this Plan and Table 1 (within Appendix B) presents a summary of the construction details for each of the wells to the extent that information is available. From ERM's inspection of the wells in June 2018, the following information was obtained:

- All monitoring wells were secured with a padlock;
- Inner casing is a 2-inches diameter PVC and the outer pipe is metal and is corroded;
- Casing plugs were deteriorated and hardly sealed the casing;
- Six of the monitoring wells were equipped with dedicated submersible pumps;
- Attempts to gauge the total depth of the wells was restricted because the submersible pumps precluded the insertion of the measuring device below the pump location;
- Estimated depths were between 258 ft to  $\pm$  410 ft. (the maximum length of the water logger was 300 feet);
- The only logged well was MW-2A with a total depth of 258 feet;
- The static water level ranged between eight (8) and 20 feet.

**Appendix C** provides a Photo Log with photographic documentation of each of the monitoring wells to be closed (except for MW-6 and MW-7 which have yet to be field-verified)<sup>1</sup>.

---

<sup>1</sup> A contractor involved in the design of the dedicated access road to the SLLI property recently identified one of the wells located atop of the mogote, south of the SLLI property. Access to the area is restricted due to the amount of fallen trees caused by Hurricane Maria. Wells MW-6 and MW-7, assuming their existence can be field-verified, will be abandoned as part of this Plan.

## MONITORING WELLS

### 3.1

#### MONITORING WELL CONSTRUCTION DETAILS

Construction and operation at the Barceloneta facility began in the early 1970s and ownership of the facility has changed multiple times. Both the Old Landfill and former Secure Landfill have been closed (in terms of operations) for over 30 years. Environmental investigations and/or monitoring associated with the two landfills, which resulted in the installation of the groundwater monitoring wells, occurred during the 1980s and 1990s by former facility owners. Consequently, complete well construction logs and other information relating to the wells is limited and presented in a document developed by The Earth Technology Corporation (1987) obtained during a review of EPA's files.

During a visit to the facility on June 28, 2018 ERM performed a field reconnaissance of the area of the two landfills to identify and located all the monitoring wells. For the wells confirmed remaining on site, ERM also evaluated the physical condition of each of the wells and attempted to ascertain well depth and construction details, to the extent possible. In general, all wells had an elevated double casing above the ground: inner and outer pipes. The inner casing consisted of a 2-inch diameter, Schedule-40 PVC. The outer casing (manhole) was metal with a padlock secured cover. The shape of the outer casing were of two forms: rounded and squared. All monitoring wells had a plug, which in most cases had deteriorated and was no longer providing a good seal for the well casing.

### 3.2

#### CAMERA EXPLORATION

Details on the construction of the wells are needed for the permit application for closure as required by DNER. ERM suggests a study with a 'downhole' camera to obtain information for three of the monitoring wells in the immediate vicinity of the landfills (N-1; E-2; and MW-2A) for which details on the construction is not available and the two monitoring wells located offsite within the mogotes (MW-6 and MW-7; assuming they can be located) where groundwater level is not documented. The camera will be introduced slowly into the well casing with a connector attached to a monitor registering the image in details of the inner conditions of the well casing. It is assumed that the well casing is free of obstacles and the camera lens reaches the bottom of each borehole.

There are limitations for the uses of a camera: 1) if the submersible pump is hanging inside the casing and prevents the camera to lower the lens, or 2) the PVC pipe is bent due to telluric movement, or 3) the collapse of the well casing at joints. In those circumstances, the length of the screen, the bottom of the well and groundwater level can be calculated after removing the PVC.

## 4.1

## MONITORING WELLS DESCRIPTION

Monitoring wells at the landfill area consist of PVC well casing of 2-inch diameter constructed to monitor groundwater in the vicinity of the landfills. The last sampling event occurred in 2014 with results below reporting limits for all potential contaminants (i.e., constituents of concern (COCs))<sup>2</sup>. **Appendix D** includes a table with the laboratory results from the 2014 sampling event (note that all detected compounds were 'tentatively identified compounds (TICs); no COCs were detected). Six of the 12 wells appeared to be used for routine monitoring (likely associated with the former Secure Landfill) since they have dedicated equipment installed within the wells (e.g., submersible pumps, slings and tubing). All wells were elevated off the ground and the inner casing was PVC while the outer casing was metal (rounded or squared). Based on ERM's visual assessment, the metal casing was deteriorated and oxidized. Additionally, the dedicated equipment did not appear to be in working condition. To prevent potential contamination from external sources, ERM recommends permanent closure of all these wells in accordance with guidelines for well abandonment from the *Manual of Water Well Construction Practices*, Office of Water Supply, USEPA. These procedures are discussed in greater detail in the sections that follow.

## 4.1.1

## PERMITTING

As required by the DNER, water wells that are abandoned and represent a threat to the safety and public health, and threaten the integrity of any water source, need to be properly and permanently closed and sealed. Prior to implementing a closure plan for the monitoring wells described herein and in compliance with DNER regulations, the Application Form for a Permit to Obliterate and Close Wells or Facilities (Solicitud de Permiso de Sellado de Pozo o Cierre de Facilidades) will be completed and submitted with the application fee to the DNER office. Once the permit is granted, the closure plan will be implemented as approved.

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<sup>2</sup> Reference is to a "Phase II Environmental Site Assessment" report prepared for Merial Limited and Sanofi Retained Environmental Matters by Environ, dated October 2014.

#### 4.1.2

#### *GAUGING MONITORING WELLS*

During the June 28, 2018 reconnaissance of the landfill area, ERM's Project Geologist counted 10 monitoring wells (two additional wells, MW-6, MW-7 were reported to have been identified during the access road survey activity in April 2019). Each of the wells had the top cover secured with a padlock. Six of the 12 wells have dedicated equipment used to perform routine sampling. This dedicated equipment must be removed before measuring the total depth of the well and the groundwater level of each monitoring well. All monitoring wells will be gauged prior to commencing the formal closure procedures. Gauging will provide the total height/length of the water column and the depth to where the sealing material will be injected.

#### 4.1.3

#### *REMOVAL OF SUBMERSIBLE PUMP*

Six of the monitoring wells have dedicated pumping equipment inside. To remove these submersible pumps and ancillary equipment, a winch installed on the drill rig will extract the pump using the metal cable attached to the pump. Extra care is required to handle the pump since they have been out of operation for a long period of time, have likely oxidized/corroded due to age, and both the cable and pump may be fragile. In the event a submersible pump cannot be retrieved from inside the well using conventional methods (pulling the pump), a drill rig deployed during the closure process will be used to open the borehole down to where the submersible pump is located. Regardless, every attempt will be made to remove any dedicated equipment that remains in the wells prior to closure.

#### 4.1.4

#### *REMOVAL OF MANHOLE AND CONCRETE SLAB*

Construction of the monitoring wells consists of an outer metal casing elevated above the ground, a top cover secure with a padlock and sealed with concrete. The outer casing will be demolished, first using an electric saw to cut the metal. Once the outer casing is removed from the stand, the driller will cut the inner PVC pipe with a hand or reciprocating saw.

After removing both inner and outer casings, the concrete slab will be removed using a jackhammer to cut through the concrete. The bentonite grout will also be removed completely. Piles of concrete and bentonite debris will be collected with a shovel and placed in drums for proper disposal.

#### 4.1.5

#### *REMOVAL OF MONITORING WELL CASING*

Total depth of the monitoring wells is variable. Table 1 (Appendix B) provides the total depth for all but one of the monitoring wells. It is expected that the well screens have an extension of at least ten feet above the groundwater table. It is intended to remove the casing completely. For that purpose, a winch will anchor to the upper casing and pull up using a tripod spear. Each piece of PVC casing will be taken apart and staged near the well site for proper disposal. The well screen will be used to confirm the column of the groundwater and to determine the thickness of the sand pack.

#### 4.2

#### *FIELD PROCEDURE FOR MONITORING WELLS ABANDONMENT*

#### 4.2.1

#### *BOTTOM SCREENED-PIPE SAND-PACK*

Monitoring wells in the vicinity of the landfills were installed in the heart of the karst topography. The karst in northern Puerto Rico contains productive groundwater aquifers. The bottom of the monitoring well is where the well screen was installed and reached groundwater. This screened casing length will be used to calculate the thickness of the sand pack to use as a filter material in the water-bearing zone (aquifer). Calculation of the approximate amount of sand is based on the screen length X the diameter of the borehole X ten feet above the groundwater table.

Once the amount of sand is calculated, a clean sand will be injected into the borehole from the bottom to about 10 feet above the groundwater table to protect the groundwater from any contaminant intrusion. Ten feet of sand above the groundwater table will cover the groundwater column, vadose zone and any groundwater fluctuations. The calculated depth of the sandpack will be measured to confirm it seals the borehole and no groundwater is flowing up.

#### 4.2.2

#### *PERMANENT BRIDGE-SEAL*

The non-producing zone above the groundwater table will be filled with a mix of bentonite and cement. This mixture forms a permanent seal upon which fill material may be safely deposited. It will also prevent any water migration vertically within the borehole.

The calculated length of the borehole to be filled with bentonite-cement will be the top of the ten feet sand-pack up to five feet below the ground surface. A manual mixer will produce the bentonite-cement grout. A plastic hose

will be used to introduce the mixture at the bottom of the borehole; and progressively pour it upward to within approximately five (5) feet of the top of the borehole.

#### **4.2.3**      *UPPERMOST SEAL*

The uppermost five (5) feet of the borehole to land surface level will be filled with a material appropriate for and consistent with the intended use of the land. For the wells in the landfill area, ERM recommends completing the seal with clean fill material (sand and gravel) and the upper foot with a mix of cement and gravel.

Appendix E presents a diagram of the complete borehole seal.

#### **4.2.4**      *ADDITIONAL CONSIDERATIONS*

This plan assumes that all scheduled activities will be conducted with no difficulties. However, the wells that are the subject of this closure plan have not been accessed or used for four years or longer; therefore, the possibility exists that part of the casing may break during the closure activities. In addition, the dedicated submersible pumps inside the monitoring wells may be difficult or impossible to remove due to deterioration of its parts (slings and tubing). In the event that removal of the submersible pump is unsuccessful, the driller will attempt to remove whatever parts from the submersible pump that can be removed and leave the remainder of the pump in the well and seal the borehole with the pump/pump remnants at the bottom of the borehole. If the PVC casing breaks while pulling it up, field staff will perform a 'blind seal' consisting of filling the groundwater area with clean sand and measuring frequently the sand column until no water is detected. Then, the borehole/casing will be filled with sand 10 feet more to cover the vadose zone and any potential fluctuation in groundwater level above the groundwater table. Once the water-bearing zone is covered, the rest of the well seal procedure as described above will be implemented.

#### **4.3**      *GENERAL ON-SITE SAFETY RULES*

In addition to the specific requirements of the project, general safety rules shall be in effect on the site at all times.

The following Personal Protective Equipment (PPE) level D is required during all fieldwork.

- Safety Glasses
- Work clothes
- Safety Boots
- Hi Vis Vest
- Hard Hat
- Work Gloves

#### 4.4

#### ACTIVITIES RECORDING

The team leader during all fieldwork will maintain a bound field logbook. A fieldwork Supervisor will act as an observer recording all pertinent data. Recorded data in the notebook will include:

- Monitoring Well Location;
- Date;
- Time (24 hours system);
- Weather conditions;
- Work performing;
- Monitoring well depth;
- Groundwater table;
- Screen length;
- Calculated sand-pack;
- Remarks;
- Name and title of personnel performing well abandonment;
- Chronology of daily events; nad
- Records of project safety.

The logbook will be suitable for field use, similar to notebooks used by surveyors or fieldworkers. The notebook can be filed with the project records after completion of a given stage, thus serving as additional documentation of project activities.

## 5

### *OTHER PROCEDURES*

#### 5.1

##### *MANAGEMENT AND DISPOSAL OF MATERIAL AND SOLID WASTES*

ERM assumes that no investigation derived waste will be generated since only dedicated materials and equipment will be used for the obturation and sealing. PVC casing removed from the boreholes will be staged in the landfill area (on SLLI property), transported and disposed of properly to a facility previously approved by SLLI. The garbage generated during the activity will be placed in garbage bags and disposed of at a proper dumpster facility. Any soil cuttings extracted during the activities will be spread out in the field on SLLI property.

#### 5.2

##### *REPORTING*

Following completion of the closure activities described herein at all of the monitoring well locations, a closure activities report will be prepared and certified by a Professional Engineer. The certification will be part of the report to be submitted to EPA and DNER and will provide formal documentation that the monitoring wells were closed and sealed in accordance with the approved Closure Plan. The closure activities report will include the following information:

- Summary of the activities conducted;
- Brief description of materials management and final disposal of waste;
- Certification confirming that closure procedures were performed in accordance with the EPA-approved Closure Plan; and
- Copies of the DNER closure permits/certification.

The final closure report will be submitted to EPA and DNER within 30 working days after the closure activities are completed. BI will be provided with a copy of the final report approved by the EPA and copies of the certifications of the two wells closed on their property.

#### 4.5

#### *DECONTAMINATION PROCEDURE*

The activities in this project do not require decontamination of equipment. However, equipment introduced in the borehole that may reach the groundwater will be decontaminated to avoid the potential of introducing contaminants in the aquifer. The decontamination procedure that will be implemented consists of the following sequential steps:

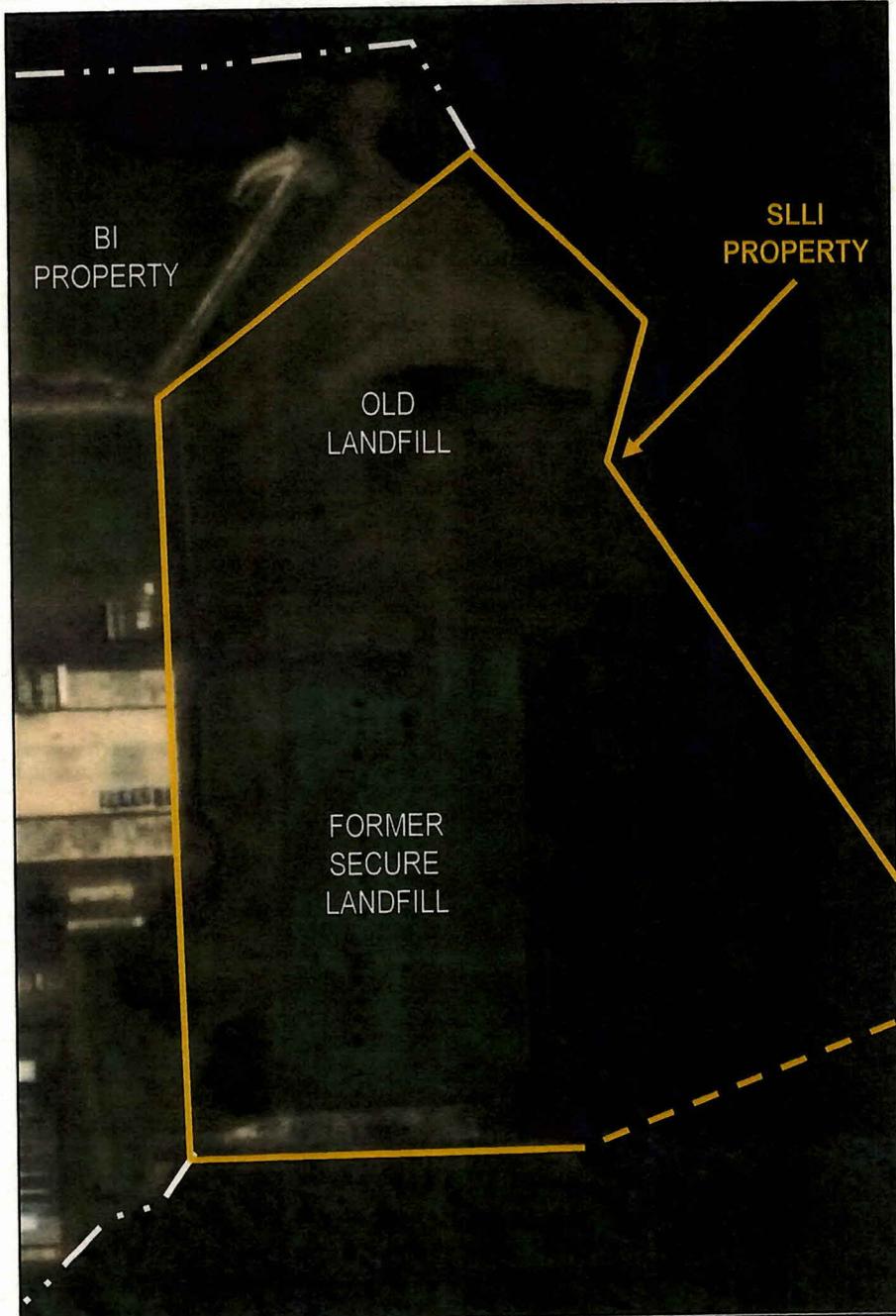
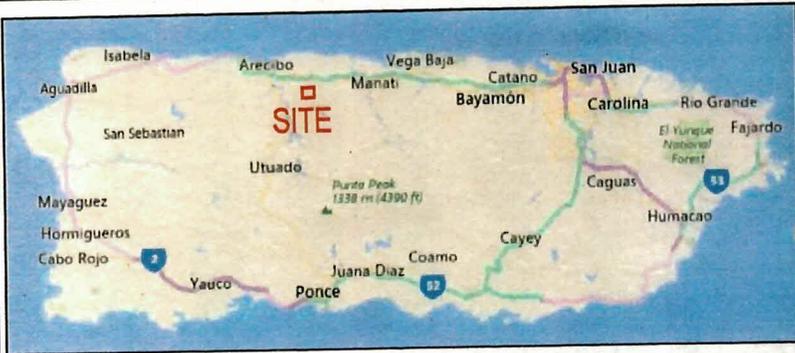
1. Rinse with tap water.
2. Wash using a brush with a phosphate free detergent such as Alconox®.
3. Rinse with tap water.
4. Air dry.

#### 4.6

#### *REFERENCING AND IDENTIFICATION*

Before the well casing is removed from each of the monitoring well locations, the exact location of the abandoned well or borehole will be surveyed and recorded, "tying in" the location with permanent reference points. All information relative to the abandonment procedures and the location of the abandoned well will be documented and assembled as required in the *Solicitud De Permiso De Sellado De Pozo O Cierre De Facilidades (Application for Closure and Abandonment of Wells or a Facility)* of the Department of Natural and Environmental Resources (DNER).

*Appendix A*  
*Site Location Plan*

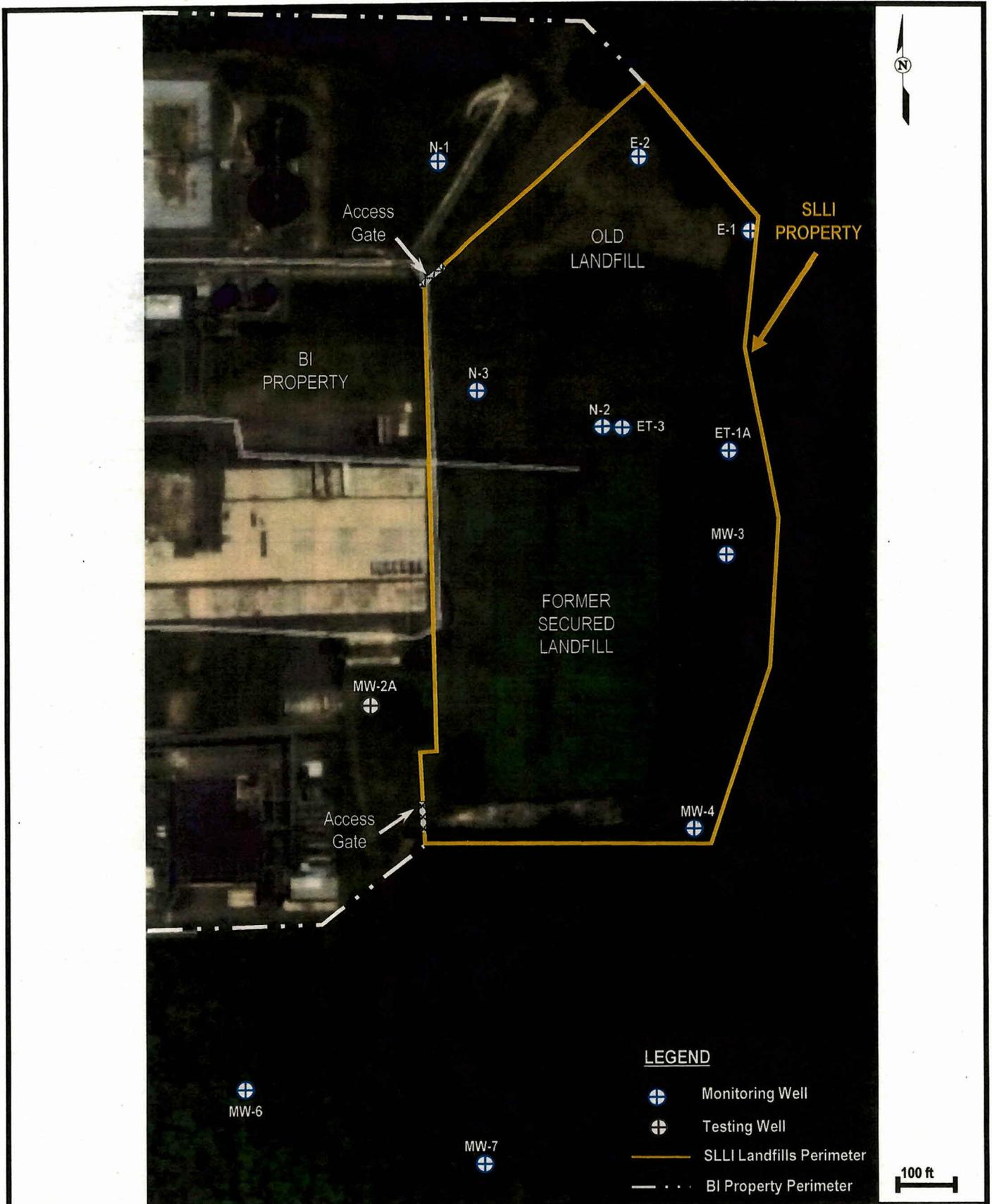


**SITE LOCATION MAP**  
**SLLI Property**  
**Florida Afuera Ward, Road PR-2, Km. 56.7**  
**Barceloneta, PR**

**Figure**  
**1**

*Appendix B  
Monitoring Wells Location and  
Well Construction Details*





**LEGEND**

-  Monitoring Well
-  Testing Well
-  SLLI Landfills Perimeter
-  BI Property Perimeter



**MONITORING WELLS LOCATION**  
**StarLink Old Landfill**  
**Florida Afuera Ward, Road PR-2, Km. 56.7**  
**Barceloneta, PR**

**Figure**  
**2**

**APPENDIX B**  
**TABLE 1 - MONITORING WELLS DATA<sup>1</sup>**

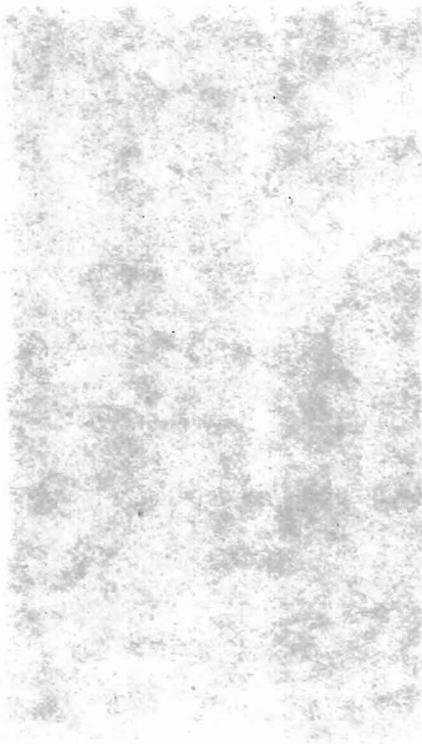
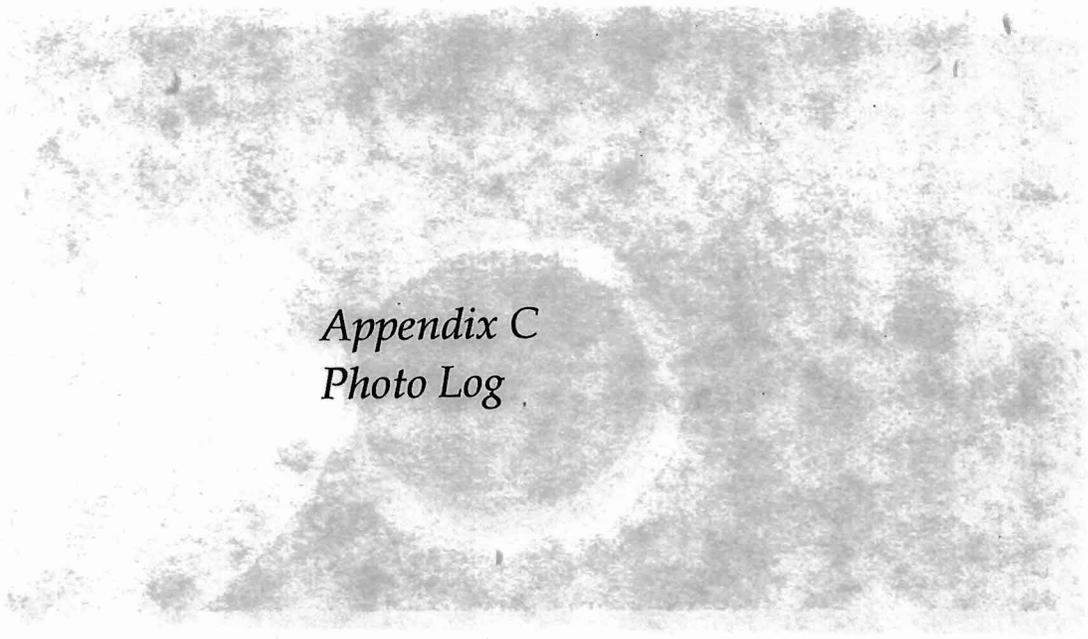
WELL ID	CONSTRUCTION DATE	TOTAL DEPTH	GW LEVEL	SCREEN TOP	SCREEN BOTTOM	SCREEN LENGTH
E-1 (MW-1)	1985	269	254	255.72	280.72	25
ET-1A	1985	312	276.2	248.1	280.18	30
N-1	1985?	?	268.7	?	?	?
E-2	1985	350	303	?	?	?
MW-2*	1985?	258.25	*	?	?	?
N-2 (P-1)	1985	295	264.4	250.18	274.2	10
ET-3	1985	315	262.6	255.8	280.8	25
N-3 (ST-3)	1985	310	276	255	285	30
MW-3	1985?	284.99	289.6	257.46	299.5	43
MW-4	1985?	265.57	228.6	233.57	267.4	32
MW-6	1985?	408	301.5	290	315	25
MW-7	1985?	385	?	300	325	25

<sup>1</sup> Source: Earth Technology Corporation, report dated 1987 (reviewed from EPA's files).

\*MW-2A is a testing well. The well depth was sounded (field verified) by ERM geologist in June 2018; no groundwater encountered.

? Missing or incomplete/inaccurate data.

*Appendix C*  
*Photo Log*



Photograph of the  
interior of the  
cave, showing the  
entrance and the  
interior wall.





**Photograph: 1** MW-2A – One of the well in the of Boringher-Ingerham; used as testing well.



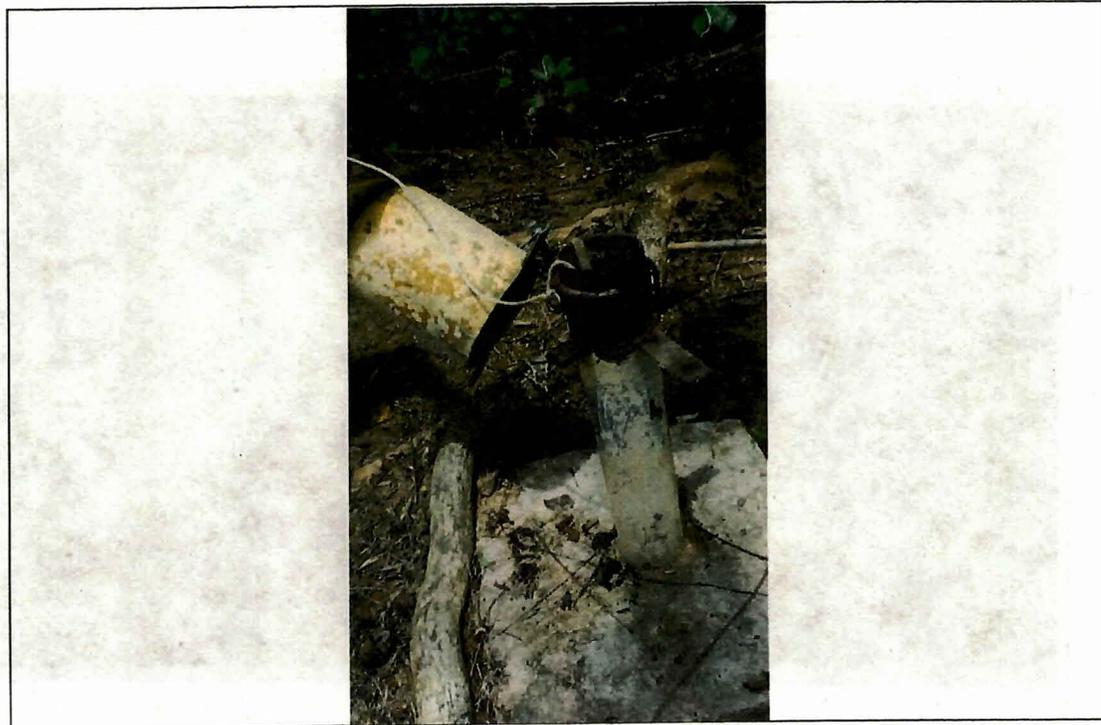
**Photograph: 2** Monitoring well N-2



**Monitoring Wells  
StarLink Old Landfill  
Barceloneta, Puerto Rico**



**Photograph: 3** | Monitoring well E-2



**Photograph: 4** | Monitoring well ET-1A



**Monitoring Wells  
StarLink Old Landfill  
Barceloneta, Puerto Rico**



**Photograph: 5** | Monitoring well N-3



**Photograph: 6** | Monitoring well N-1; second well inside BI property.



**Monitoring Wells  
StarLink Old Landfill  
Barceloneta, Puerto Rico**



**Photograph: 7** | Monitoring well N-2



**Photograph: 8** | Monitoring well E-1



**Monitoring Wells  
StarLink Old Landfill  
Barceloneta, Puerto Rico**



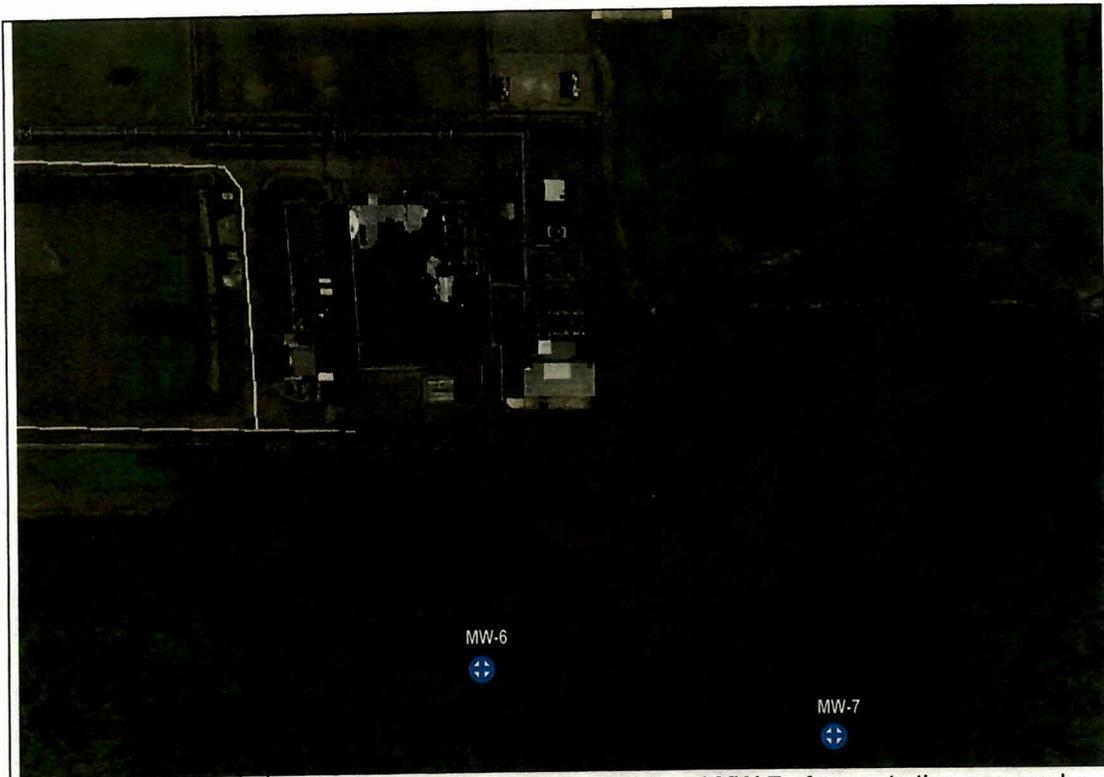
**Photograph: 9** | Monitoring well MW-3



**Photograph: 10** | Monitoring well MW-4



**Monitoring Wells  
StarLink Old Landfill  
Barceloneta, Puerto Rico**



**Photograph: 11** Location of monitoring wells MW-6 and MW-7. Access to the area can be obtained during the closure activities. Trail is blocked with fallen trees.

*Appendix D  
Summary of Latest Groundwater  
Sampling Results*

APPENDIX D  
TABLE 2: LATEST GROUNDWATER SAMPLING RESULTS (2014)

Constituent	Compound Description	MW-01	MW-02	MW-03	MW-04	DW-3	DW-4
<b>Volatile Organic Compounds (µg/L)</b>							
4-amino-5-(4-methylphenyl)-7-(t-butyl)pyrazolo-d-3,4-pyrimidine	Unknown		7.2 NJ				
Arsenous acid, tris(trimethylsilyl) ester	Constituent of herbicides, pesticides, and rodenticides		10.5 NJ				
Benzeneacetonitrile, a-([1,1'-biphenyl]-4-ylmethylene)-, (Z)-	Unknown	7.3 NJ					
Cyclotetrasiloxane, octa	Associated with manufacture of silicones (personal care products, lubricants, solvents)			6.8 NJ	6.9 NJ		
Cyclotrisiloxane, hexame	Associated with manufacture of silicones (personal care products, lubricants, solvents)	9.2 NJ		9.2 NJ	9.7 NJ		
Unknown	Unknown	48.9 NJ	50.0 NJ	53.1 NJ	52.5 NJ	39.1 NJ	37.2 NJ
<b>Semi-Volatile Organic Compounds (µg/L)</b>							
1,3-Cyclopentanedione, 2	Unknown					8.2 NJ	
1-Butene, 2-chloro-3-met	Unknown					42.8 NJ	
1H-Benzimidazole, 2-meth	Associated with agricultural chemicals					5.9 NJ	
2,3-Dimethyl-2-hexanol	Unknown					4.3 NJ	
1-[1-Methyl-2-(2-propenyloxy)ethoxy]-2-propanol	Unknown			7.1 NJ			
3-Hydroxy-3-methyl-2-but	Ketone					37.7 NJ	
Butane, 2,3-dichloro-2-m	Unknown					22.9 NJ	
Methane, diethoxy-	Reaction/Extraction solvent used in preparations for pharmaceuticals			10.3 NJ			

**Notes:**

A mass spectral library search was conducted to identify the 10 largest peaks associated with tentatively identified compounds (TICs). Groundwater and drinking water samples were analyzed for TICs of the following types: volatile organic compounds (VOCs) (EPA 8260) and semi-volatile organic compounds (SVOCs) (EPA 8270). Only identified compounds are presented in this table.

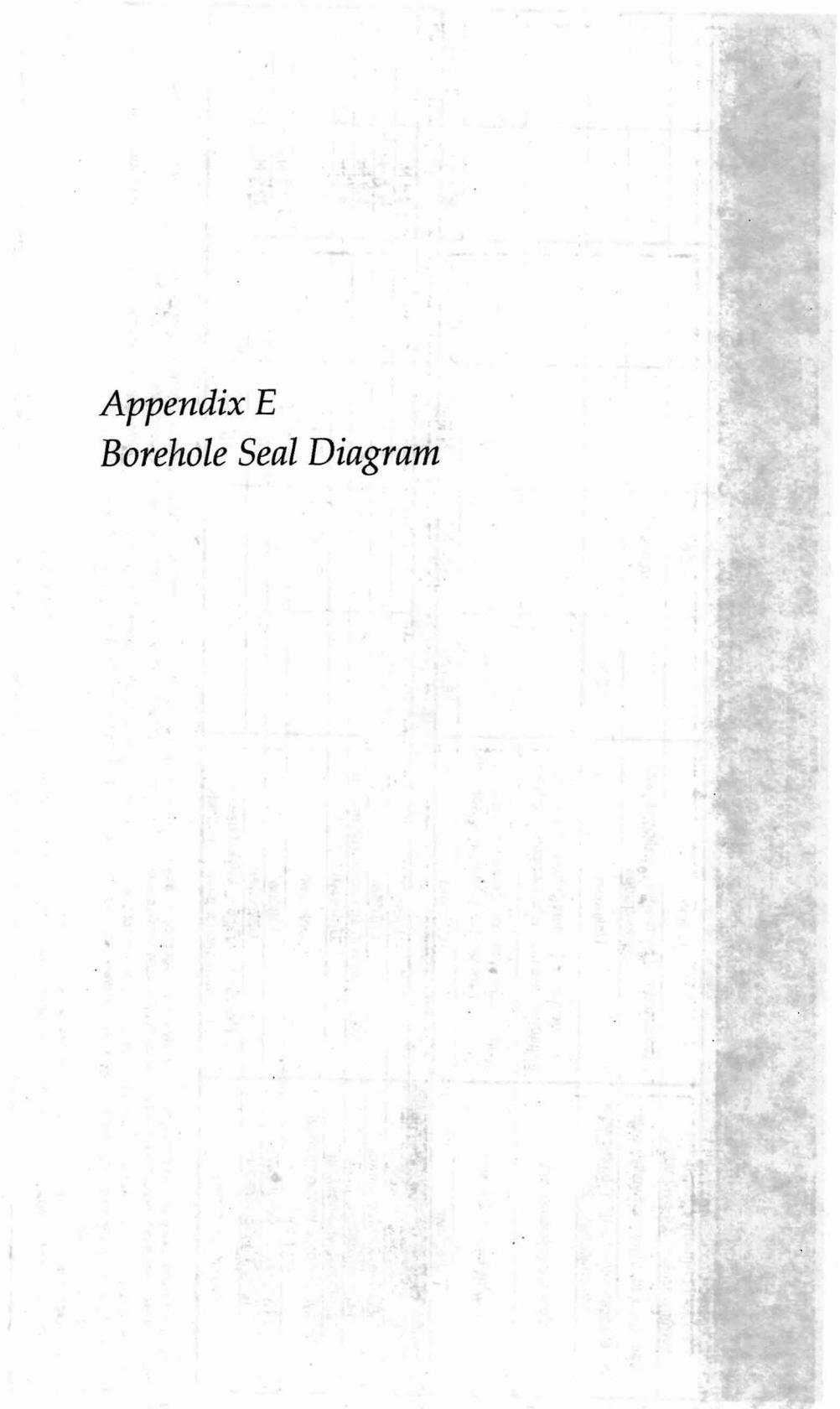
The TICs identified in the groundwater and drinking water samples are not listed in the Puerto Rico Water Quality Standards Regulation maximum allowable concentrations nor the United States Environmental Protection Agency regional screening levels for residential tap water and, therefore, the concentrations cannot be compared to a regulatory numeric criteria.

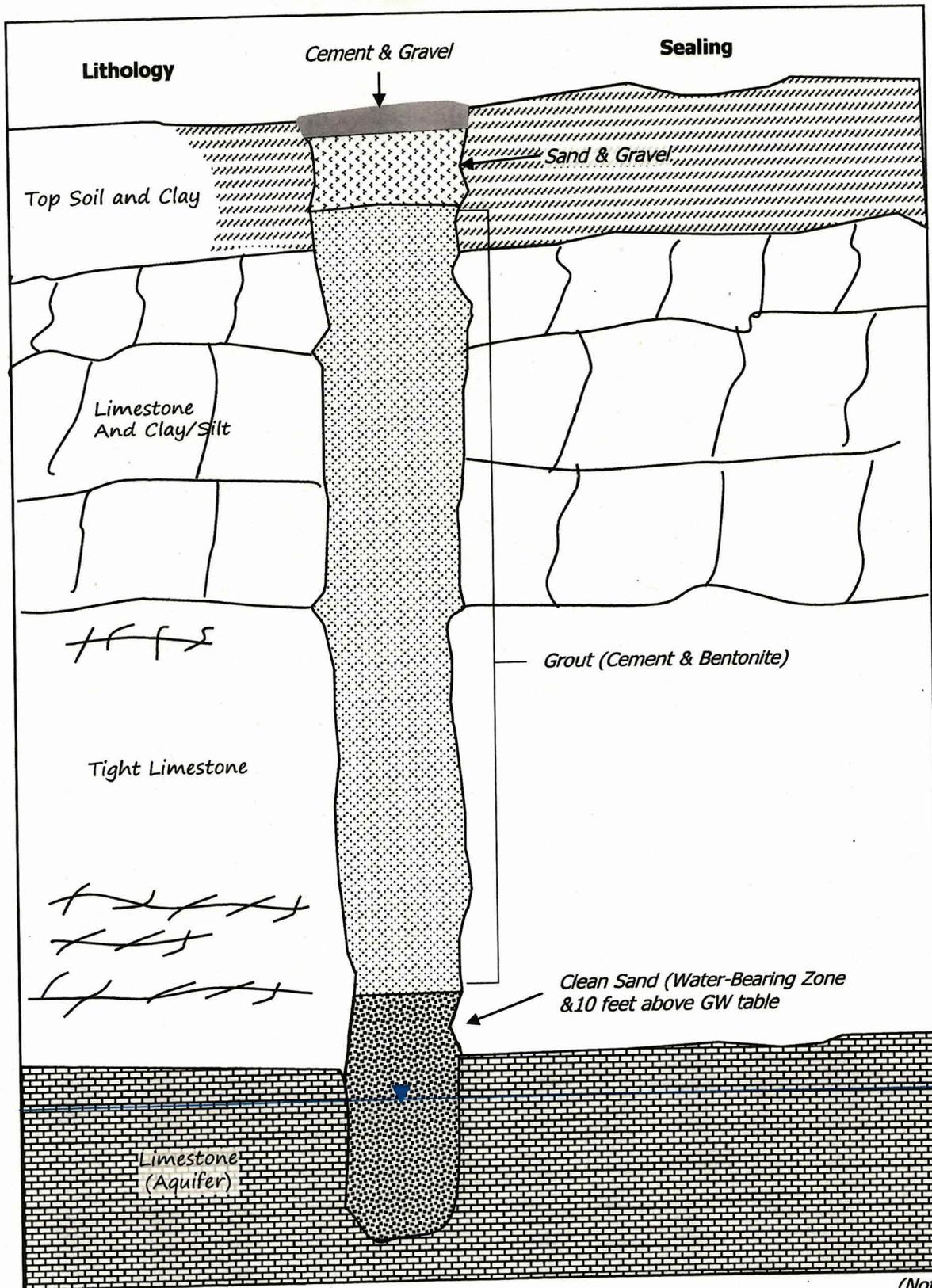
µg/L = micrograms per liter.

N = Tentatively identified compound (TIC) based on mass spectral library search

J = Result is less than the reporting limit, but greater than or equal to the method detection limit; the concentration is an approximate value.

*Appendix E*  
*Borehole Seal Diagram*



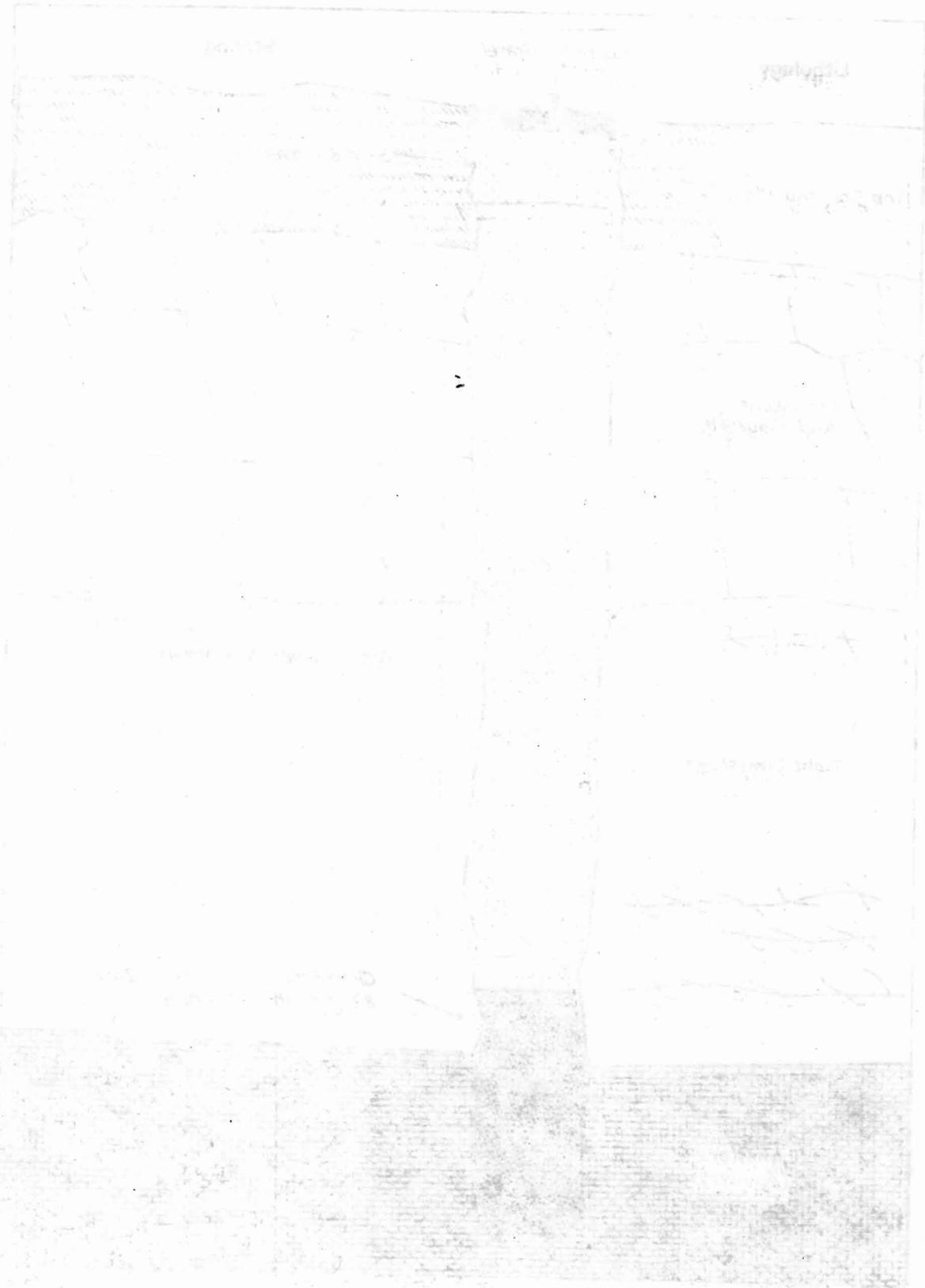


(Not in Scale)



**BOREHOLE SEAL DIAGRAM**  
 StarLink Old Landfill  
 Florida Afuera Ward, Road PR-2, Km. 56.7  
 Barceloneta, PR

Appendix  
**E**



12

Handwritten notes or a legend, mostly illegible due to fading.

