



Technical Package Cover Page

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-



Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

1. Resumen de la solicitud (en lenguaje sencillo)
 - Inglés
 - Idioma alternativo (español)
2. Primer aviso (NORI, Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Space Exploration Technologies Corp. (CN602867657) operates Starbase Launch Pad Site (RN111606745), a water deflector system. The facility is located at the south side of the eastern terminus of State Highway 4, in Brownsville, Cameron County, Texas 78521. The purpose of this application is to obtain a discharge permit for non-process deluge system water that is utilized during launch operations.

Discharges from the facility are expected to contain total dissolved solids, nitrate-nitrogen, phosphorus, total dissolved solids, sulfate, chloride, fluoride, aluminum, cadmium, chromium, copper, cyanide, and zinc. Wastewater will be treated by reusing deluge and pretreatment required.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

Space Exploration Technologies Corp. (CN602867657) opera Starbase Launch Pad Site RN111606745, un deluge system. La instalación está ubicada en the south side of the eastern terminus of State Highway 4, en Brownsville, Condado de Cameron, Texas 78521. Obtener un permiso de descarga para el agua del Sistema de diluvio que no es de proceso y que se utiliza durante las operaciones de lanzamiento..

Se espera que las descargas de la instalación contengan solidos disueltos totals, nitrogeno-nitrato, fosforo, sulfato, cloruro, fluoruro, aluminio, cadmio, cromo, cobre, zinc y cianuro . Aguas residuals industriales. está tratado por mediante reutilizacion de agua de diluvio y pretratamiento degun sea necesario.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**COMBINED
NOTICE OF PUBLIC MEETING
AND
NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN A
WATER QUALITY PERMIT (NORI)
AND
NOTICE OF APPLICATION AND PRELIMINARY DECISION
FOR TPDES PERMIT FOR INDUSTRIAL WASTEWATER (NAPD)
NEW**

Permit No. WQ0005462000

APPLICATION AND PRELIMINARY DECISION. Space Exploration Technologies Corp., 1 Rocket Road, Brownsville, Texas 78521, which operates the Starbase Launch Pad Site, a site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicles, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005462000, to authorize the discharge of deluge water (used for launch and return to launch site activities), **facility washdown water, and stormwater** on an intermittent and flow variable basis via Outfalls 001 and 002. TCEQ received this application on July 1, 2024.

This combined notice is being issued to provide additional information not included in the original NORI regarding the applicant's proposed discharges via Outfalls 001 and 002. The applicant has requested that these outfalls be authorized to discharge facility washdown water and stormwater.

The facility is located on the south side of the eastern terminus of State Highway 4, near the City of Brownsville, Cameron County, Texas 78521. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.156388,25.996944&level=18>.

The effluent is discharged to tidal wetlands, thence to Rio Grande Tidal in Segment No. 2301 of the Rio Grande Basin. The unclassified receiving water uses are high aquatic life use for the tidal wetlands. The designated uses for Segment No. 2301 are primary contact recreation and exceptional aquatic life use.

In accordance with Title 30 Texas Administrative Code Section 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in tidal wetlands, which has been identified as having high aquatic life use. Existing uses will be

maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at the Port Isabel Public Library, 213 North Yturria Street, Port Isabel, in Cameron County, Texas. The application, including any updates, and associated notices are available electronically at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments about this application. The TCEQ will hold a public meeting on this application because of significant public interest.

The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. A public meeting will be held and will consist of two parts, an Informal Discussion Period and a Formal Comment Period. A public meeting is not a contested case hearing under the Administrative Procedure Act. During the Informal Discussion Period, the public will be encouraged to ask questions of the applicant and TCEQ staff concerning the permit application. The comments and questions submitted orally during the Informal Discussion Period will not be considered before a decision is reached on the permit application and no formal response will be made. Responses will be provided orally during the Informal Discussion Period. During the Formal Comment Period on the permit application, members of the public may state their formal comments orally into the official record. A written response to all timely, relevant and material, or significant comments will be prepared by the Executive Director. All formal comments will be considered before a decision is reached on the permit application. A copy of the written response will be sent to each person who submits a formal comment or who requested to be on the mailing list for this permit application and provides a mailing address. Only relevant and material issues raised during the Formal Comment Period can be considered if a contested case hearing is granted on this permit application.

**The Public Meeting is to be held:
Thursday, October 17, 2024 at 7:00 PM
Brownsville Sports Park Gymnasium
1000 Sports Park Boulevard
Brownsville, Texas 78526**

Persons with disabilities who need special accommodations at the meeting should call the Office of the Chief Clerk at (512) 239-3300 or 1-800-RELAY-TX (TDD) at least five business days prior to the meeting.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **The response to comments, along with the Executive Director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or a timely request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be added to: (1) the permanent list for a specific applicant name and permit number; and (2) the mailing list for a specific county. If you wish to be placed on the

permanent and the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www.tceq.texas.gov/goto/comment> within 30 days from the date of newspaper publication of this notice or by the date of the public meeting, whichever is later.

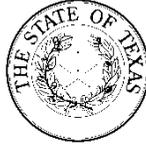
INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at <https://www.tceq.texas.gov/goto/cid/>. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at <https://www.tceq.texas.gov/goto/comment>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address, and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, toll free, at 1-800-687-4040 or visit their website at <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Space Exploration Technologies Corp. at the address stated above or by calling Ms. Katy Groom, Manager, Environmental Regulatory Affairs, at 310-363-6000.

Issued: September 5, 2024

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



COMBINADO AVISO DE REUNIÓN PÚBLICA

Y

AVISO DE RECEPCIÓN DE LA SOLICITUD E INTENCIÓN DE OBTENER UNA PERMISO DE CALIDAD DEL AGUA (NORI, por sus siglas en inglés)

Y

ANUNCIO DE SOLICITUD Y DECISIÓN PRELIMINAR PARA TPDES PERMISO DE AGUAS RESIDUALES INDUSTRIALES (NAPD, por sus siglas en inglés)

NUEVO

Permiso N.º WQ0005462000

SOLICITUD Y DECISIÓN PRELIMINAR. Space Exploration Technologies Corp., 1 Rocket Road, Brownsville, Texas 78521, que opera el sitio de la plataforma de lanzamiento Starbase, un sitio para la actividad de lanzamiento de cohetes de los vehículos de lanzamiento SpaceX Starship-Super Heavy, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) un nuevo permiso, el Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES, por sus siglas en inglés) Permiso N.º WQ0005462000, autorizar la descarga de agua de diluvio (utilizada para las actividades de lanzamiento y retorno al sitio de lanzamiento), agua de lavado de **instalaciones y aguas pluviales** de manera intermitente y de flujo variable a través de los emisarios 001 y 002. La TCEQ recibió esta solicitud el 1 de julio del 2024.

Este aviso combinado se emite para proporcionar información adicional no incluida en el NORI original con respecto a las descargas propuestas por el solicitante a través de los emisarios 001 y 002. El solicitante ha solicitado que se autorice a estos emisarios para descargar aguas de lavado de instalaciones y aguas pluviales.

La instalación está ubicada en el lado sur de la terminal oriental de la autopista estatal 4, cerca de la Ciudad de Brownsville, Condado de Cameron, Texas 78521. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no es parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.156388,25.996944&level=18>.

El efluente se descarga a los humedales de marea, de ahí a la marea de Río Bravo en el Segmento N.º 2301 de la Cuenca del Río Grande. Los usos no clasificados del agua receptora son los humedales de marea. Los usos designados para el Segmento N.º 2301 son la recreación de contacto primario y el uso excepcional de la vida acuática.

De acuerdo con el Título 30 del Código Administrativo de Texas, Sección 307.5 y los *Procedimientos para Implementar los Estándares de Calidad del Agua Superficial de Texas* (junio del 2010), se realizó una revisión antidegradación de las aguas receptoras. Una revisión antidegradación de Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existentes no se verán afectados por esta acción de permiso. Se mantendrán los criterios

numéricos y descriptivos para proteger los usos existentes. Una revisión de Nivel 2 ha determinado preliminarmente que no se espera una degradación significativa de la calidad del agua en los humedales de marea, que se ha identificado como de alto uso de la vida acuática. Se mantendrán y protegerán los usos existentes. La determinación preliminar puede ser reexaminada y puede ser modificada si se recibe nueva información.

El Director Ejecutivo de la TCEQ revisó esta acción para verificar su consistencia con las metas y pólizas del Programa de Manejo Costero de Texas (CMP, por sus siglas en inglés) de acuerdo con las regulaciones de la Oficina General de Tierras y ha determinado que la acción es consistente con las metas y políticas aplicables del CMP.

El Director Ejecutivo de la TCEQ ha completado el examen técnico de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, de ser aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar de que este permiso, si se otorga, cumple con todos los requisitos legales y reglamentarios. La solicitud de permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para su visualización y copia en Port Isabel Public Library, 213 North Yturria Street, Port Isabel, en el Condado de Cameron, Texas. La solicitud, incluidas las actualizaciones, y los avisos asociados están disponibles electrónicamente en la siguiente página web: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>

AVISO DE IDIOMA ALTERNATIVO. El aviso en idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede enviar comentarios públicos sobre esta solicitud. La TCEQ llevará a cabo una reunión pública sobre esta solicitud debido a un interés público significativo.

El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. Se llevará a cabo una reunión pública que constará de dos partes, un Período de Discusión Informal y un Período de Comentarios Formales. Una reunión pública no es una audiencia de caso impugnado según la Ley de Procedimiento Administrativo. Durante el Período de Discusión Informal, se alientará al público a hacer preguntas al solicitante y al personal de TCEQ sobre la solicitud de permiso. Los comentarios y preguntas presentados oralmente durante el Período de Discusión Informal no se considerarán antes de que se tome una decisión sobre la solicitud de permiso y no se dará una respuesta formal. Las respuestas se proporcionarán oralmente durante el Período de Discusión Informal. Durante el Período de Comentarios Formales sobre la solicitud de permiso, los miembros del público pueden expresar sus comentarios formales oralmente en el registro oficial. El Director Ejecutivo preparará una respuesta por escrito a todos los comentarios oportunos, pertinentes y sustanciales, o significativos. Todos los comentarios formales serán considerados antes de llegar a una decisión sobre la solicitud de permiso. Se enviará una copia de la respuesta por escrito a cada persona que presente un comentario formal o que haya solicitado estar en la lista de correo para esta solicitud de permiso y proporcione una dirección postal. Solo las cuestiones relevantes y materiales planteadas durante el Período Formal de Comentarios pueden ser consideradas si se concede una audiencia de caso impugnado sobre esta solicitud de permiso.

**La Reunión Pública se llevará a cabo:
jueves 17 de octubre del 2024 a las 7:00 PM**

**Brownsville Sports Park Gymnasium
1000 Sports Park Boulevard
Brownsville, Texas 78526**

Las personas con discapacidades que necesiten acomodaciones especiales en la reunión deben llamar a la Oficina del Secretario Oficial al (512) 239-3300 o al 1-800-RELAY-TX (TDD) al menos cinco días hábiles antes de la reunión.

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después de la fecha límite para los comentarios públicos, el Director Ejecutivo considerará los comentarios y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **La respuesta a los comentarios, junto con la decisión del Director Ejecutivo sobre la solicitud, se enviará por correo a todas las personas que presentaron comentarios públicos o que solicitaron estar en una lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD: su nombre, dirección, número de teléfono; nombre del solicitante y número de permiso propuesto; la ubicación y distancia de su propiedad/actividades en relación con la instalación propuesta; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho en disputa que envíe durante el período de comentarios; y la declaración "[Yo/nosotros] solicitamos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad propuesta; proporcionar la información mencionada anteriormente con respecto a la ubicación del miembro afectado y la distancia de la instalación o actividad; explicar cómo y por qué el miembro se vería afectado; y explicar cómo los intereses que el grupo busca proteger son relevantes para el propósito del grupo.

Después del cierre de todos los períodos de comentarios y solicitudes aplicables, el Director Ejecutivo enviará la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

La Comisión solo puede conceder una solicitud de audiencia de caso impugnado sobre cuestiones que el solicitante presentó en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el período de comentarios.**

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir la aprobación final de la solicitud a menos que se presente una solicitud de audiencia de caso impugnado a tiempo o una solicitud de reconsideración oportuna. Si se presenta una solicitud de audiencia

oportuna o una solicitud de reconsideración, el Director Ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y las solicitudes a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si presenta comentarios públicos, una solicitud para una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir avisos públicos futuros enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser agregado a: (1) la lista permanente para un nombre de solicitante específico y número de permiso; y (2) la lista de correo de un condado específico. Si desea ser incluido en la lista de correo permanente y del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección que se indica a continuación.

Todos los comentarios públicos por escrito y las solicitudes de reuniones públicas deben enviarse a Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o electrónicamente en <https://www.tceq.texas.gov/goto/comment> dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico o antes de la fecha de la reunión pública, lo que ocurra más tarde.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en <https://www.tceq.texas.gov/goto/cid/>. Busque en la base de datos utilizando el número de permiso para esta solicitud, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios públicos y las solicitudes deben presentarse electrónicamente en <https://www.tceq.texas.gov/goto/comment>, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, pasará a formar parte del registro público de la agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener más información de Space Exploration Technologies Corp. en la dirección indicada anteriormente o llamando a la Sra. Katy Groom, Gerente de Asuntos Regulatorios Ambientales, al 310-363-6000.

Emitido: 5 de septiembre de 2024

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 1, 2024

Dear Applicant:

Re: Confirmation of Submission of the New Industrial Wastewater Individual Permit Application

This is an acknowledgement that you have successfully completed Industrial Wastewater Individual Permit Application.

ER Account Number: ER106371
Application Reference Number: 664613
Authorization Number: WQ0005462000
Site Name: Starbase Launch Pad Site
Regulated Entity: RN111606745 - STARBASE LAUNCH PAD SITE
Customer(s): CN602867657 - Space Exploration Technologies Corp.

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality

New Domestic or Industrial Individual Permit

Site Information (Regulated Entity)

What is the name of the site to be authorized?	Starbase Launch Pad Site
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	Located on S side of the eastern terminus of SH 4
City	Brownsville
State	TX
ZIP	78521
County	CAMERON
Latitude (N) (##.#####)	25.996969
Longitude (W) (-###.#####)	-97.156269
Primary SIC Code	
Secondary SIC Code	
Primary NAICS Code	
Secondary NAICS Code	

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)?	RN111606745
What is the name of the Regulated Entity (RE)?	STARBASE LAUNCH PAD SITE
Does the RE site have a physical address?	No
Because there is no physical address, describe how to locate this site:	LOCATED ON S SIDE OF THE EASTERN TERMINUS OF SH 4 BROWNSVILLE TX 78521
City	BROWNSVILLE
State	TX
ZIP	78521
County	CAMERON
Latitude (N) (##.#####)	
Longitude (W) (-###.#####)	
Facility NAICS Code	336414
What is the primary business of this entity?	

Space E-Customer (Applicant) Information (Owner Operator)

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN602867657
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Space Exploration Technologies Corp.
Texas SOS Filing Number	805421124
Federal Tax ID	10627671
State Franchise Tax ID	10106276719
State Sales Tax ID	
Local Tax ID	
DUNS Number	120406462
Number of Employees	

Independently Owned and Operated?

Yes

I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.

Yes

Responsible Authority Contact

Organization Name

Space Exploration Technologies Corp.

Prefix

First

Katy

Middle

Last

Groom

Suffix

Credentials

Title

Manager, Environmental Regulatory Affairs

Responsible Authority Mailing Address

Enter new address or copy one from list:

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

1 ROCKET RD

Routing (such as Mail Code, Dept., or Attn:)

City

BROWNSVILLE

State

TX

ZIP

78521

Phone (###-###-####)

3217301469

Extension

1469

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

Katy.Groom@spacex.com

Billing Contact

Responsible contact for receiving billing statements:

Select the permittee that is responsible for payment of the annual fee.

CN602867657, Space Exploration Technologies Corp.

Organization Name

Space Exploration Technologies Corp.

Prefix

First

Katy

Middle

Last

Groom

Suffix

Credentials

Title

Manager, Environmental Regulatory Affairs

Enter new address or copy one from list:

Mailing Address

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

1 ROCKET RD

Routing (such as Mail Code, Dept., or Attn:)

City

BROWNSVILLE

State

TX

ZIP

78521

Phone (###-###-####)

3217301469

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

katy.groom@spacex.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Billing Contact

Space Exploration Technologies Corp.

Katy

Groom

Manager, Environmental Regulatory
Affairs

Enter new address or copy one from list:

Mailing Address

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

City

State

ZIP

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

Domestic

1 ROCKET RD

BROWNSVILLE

TX

78521

3217301469

katy.groom@spacex.com

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list:

Mailing Address

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

Application Contact

Space Exploration Technologies Corp.

MRS

Carolyn

Wood

Sr Environmental Regulatory Engineer

Application Contact Address

Domestic

1 ROCKET RD

City	BROWNSVILLE
State	TX
ZIP	78521
Phone (###-###-####)	3235370071
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	carolyn.wood@spacex.com

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	Technical Contact
Organization Name	Space Exploration Technologies Corp.
Prefix	MRS
First	Carolyn
Middle	
Last	Wood
Suffix	
Credentials	
Title	Sr Environmental Regulatory Engineer
Enter new address or copy one from list:	
Mailing Address:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	1 ROCKET RD
Routing (such as Mail Code, Dept., or Attn:)	
City	BROWNSVILLE
State	TX
ZIP	78521
Phone (###-###-####)	3235370071
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	carolyn.wood@spacex.com

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Application Contact
2) Organization Name	Space Exploration Technologies Corp.
3) Prefix	MRS
4) First	Katy
5) Middle	
6) Last	Groom
7) Suffix	
8) Credentials	

9) Title	Manager, Environmental Regulatory Affairs
Mailing Address	
10) Enter new address or copy one from list	
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	1 ROCKET RD
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	BROWNSVILLE
11.4) State	TX
11.5) ZIP	78521
12) Phone (###-###-####)	3217301469
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	katy.groom@spacex.com

Public Notice Information

Individual Publishing the Notices

1) Prefix	MRS
2) First and Last Name	Carolyn Wood
3) Credential	
4) Title	Sr Environmental Regulatory Engineer
5) Organization Name	Space Exploration Technologies Corp
6) Mailing Address	1 ROCKET RD
7) Address Line 2	
8) City	BROWNSVILLE
9) State	TX
10) Zip Code	78521
11) Phone (###-###-####)	3235370071
12) Extension	
13) Fax (###-###-####)	
14) Email	carolyn.wood@spacex.com

Contact person to be listed in the Notices

15) Prefix	MRS
16) First and Last Name	Katy Groom
17) Credential	
18) Title	Manager, Environmental Regulatory Affairs
19) Organization Name	Space Exploration Technologies Corp
20) Phone (###-###-####)	3217301469
21) Fax (###-###-####)	
22) Email	katy.groom@spacex.com

Bilingual Notice Requirements

23) Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?	Yes
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education	No

program at another location?

23.3) Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC 89.1205(g)?

No

23.4) Which language is required by the bilingual program?

Spanish

Section 1# Public Viewing Information

County#: 1

1) County	CAMERON
2) Public building name	Port Isabel Public Library
3) Location within the building	Circulation Desk
4) Physical Address of Building	213 N Yturria St
5) City	Port Isabel
6) Contact Name	
7) Phone (###-###-####)	9569431822
8) Extension	
9) Is the location open to the public?	Yes

Owner Information

Owner of Treatment Facility

1) Prefix	
2) First and Last Name	
3) Organization Name	Space Exploration Technologies Corp
4) Mailing Address	1 Rocket Rd
5) City	Brownsville
6) State	TX
7) Zip Code	78521
8) Phone (###-###-####)	3217301469
9) Extension	
10) Email	katy.groom@spacex.com
11) What is ownership of the treatment facility?	Private

Owner of Land (where treatment facility is or will be)

12) Prefix	
13) First and Last Name	
14) Organization Name	Space Exploration Technologies Corp
15) Mailing Address	1 Rocket Rd
16) City	Brownsville
17) State	TX
18) Zip Code	78521
19) Phone (###-###-####)	3237301469
20) Extension	
21) Email	katy.groom@spacex.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

Admin General Information

1) Is the facility located on or does the treated effluent cross American Indian Land?	No
2) What is the authorization type that you are seeking?	Industrial Wastewater
2.1) Are the discharges at your facility subjected to federal effluent limitation guidelines (ELG) 40 CFR Part 400-471?	No
3) What is your facility operational status?	Active
3.1) What is your facility operational start date?	04/20/2023
4) What is the classification for your authorization?	TPDES
4.1) City nearest the outfall(s):	Brownsville
4.2) County where the outfalls are located:	CAMERON
4.3) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?	No
4.4) Is the daily average discharge at your facility of 5 MGD or more?	No
5) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	Yes
5.1) List each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:	Carolyn A Wood

Plain Language

1) Plain Language	
[File Properties]	
File Name	LANG_Pages from DRAFT FINAL IP Signed.pdf
Hash	7D7468C73AA4AFE1F365CF8B19F31B8E3DA22D561B99E41F7478E650ADDFB55A
MIME-Type	application/pdf

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)	
[File Properties]	
File Name	SPIF_SPIF combo.pdf
Hash	407D1249E6110F0D93B6B7C461F22BCE73A245C6957E07BCC1DAAD689BB7F152
MIME-Type	application/pdf

Industrial Attachments

1) Have you clearly outlined and labeled the required information on the original full size USGS Topographic Map?	Yes
1.1) I certify that I have clearly outlined and labeled the required information on the Topographic map and attached here.	
[File Properties]	
File Name	MAP_SpaceX_TPDES Permit_Map 1- USGS TOPO.pdf
Hash	072129C468D8EA0E1D84C3271580EF7782A9ED31F0C3FCC4D18BD351FFBBDC61
MIME-Type	application/pdf
2) Public Involvement Plan (TCEQ Form 20960)	
[File Properties]	
File Name	PIP_DRAFT IP Attachments v2.pdf
Hash	226853540E6594FCA63D13F1C9914D9CBC8EF1D1456B91CD2F95A5F82FF581FF

MIME-Type application/pdf

3) Administrative Report 1.1

[File Properties]

File Name ARPT_FINAL IP Signed 2024.pdf

Hash 7FCE78C8EF16AE034F0169F8B7F5C3D6D3DDD8DE10C0EB5DE68BEF0930B7CBE8

MIME-Type application/pdf

4) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment. Yes

4.1) I confirm that Worksheet 2.0 (Pollutant Analyses Requirements) is complete and included in the Technical Attachment. Yes

4.2) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment. Yes

4.3) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment? No

4.4) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment? Yes

4.5) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment? Yes

4.6) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment? No

4.7) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment? No

4.8) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment? No

4.9) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment? No

4.10) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment? No

4.11) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment? No

4.12) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment? No

4.13) Technical Attachment

[File Properties]

File Name TECH_FINAL IP Signed 2024.pdf

Hash 7FCE78C8EF16AE034F0169F8B7F5C3D6D3DDD8DE10C0EB5DE68BEF0930B7CBE8

MIME-Type application/pdf

5) Affected Landowners Map

[File Properties]

File Name LANDMP_SpaceX_TPDES Permit_Map 2 - Landowner Map.pdf

Hash 5BCD00DAA095B5B1F0D01181136A17D8E0476905AF8862C9B82028E8E5E20F44

MIME-Type application/pdf

6) Landowners Cross Reference List

[File Properties]

File Name LANDCRL_Affected Party List.pdf

Hash 100AAC12B94A995050BDDE220EBA9FA430A7B85535827512C19CE80FFF318AAB

MIME-Type application/pdf

7) Landowner Avery Template

[File Properties]

File Name LANDAT_Avery5160EasyPeelAddressLabels.doc
Hash 29CD3F0EA94F0A1FB39280EEF16A5005E0375750ED7BBD853D793885B3B4456F
MIME-Type application/msword

8) Flow Diagram

[File Properties]

File Name FLDIA_SpaceX_TPDES Permit_Map 1- USGS TOPO.pdf
Hash 072129C468D8EA0E1D84C3271580EF7782A9ED31F0C3FCC4D18BD351FFBBDC61
MIME-Type application/pdf

9) Site Drawing

[File Properties]

File Name SITEDR_SpaceX_TPDES Permit_Map 4 - Site Map.pdf
Hash E48DC6C898CCACC9D21A5123FC85B4B1D67896F7C6BB457CB00C4E16A5350B12
MIME-Type application/pdf

10) Original Photographs

[File Properties]

File Name ORIGPH_SpaceX_TPDES Permit_Map 3 - Facility Map.pdf
Hash BF6128304AE84E730CC062E09267CBF70597085E18C27FBF5ECF622C2D9F3757
MIME-Type application/pdf

11) Design Calculations

12) Solids Management Plan

13) Water Balance

[File Properties]

File Name WB_Water Balance Combo.pdf
Hash F85BD581FC00365210EADFAA75F0F63C76704A6654AC4A35B2F9ABCE9A7759F5
MIME-Type application/pdf

14) Other Attachments

Certification

I certify that I am authorized under 30 Texas Administrative Code 305.44 to sign this document and can provide documentation in proof of such authorization upon request.

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

1. I am Carolyn A Wood, the owner of the STEERS account ER106371.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.

7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing New Domestic or Industrial Individual Permit.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER OPERATOR Signature: Carolyn A Wood OWNER OPERATOR

Customer Number:	CN602867657
Legal Name:	Space Exploration Technologies Corp.
Account Number:	ER106371
Signature IP Address:	192.31.242.194
Signature Date:	2024-07-01
Signature Hash:	95D97509F05004B8A56D9B009CEFBFF28CEF2B13F553435AB98305B42165EAEA
Form Hash Code at time of Signature:	47E4427E6115FAC39BDA24087DA1C5C48851191511AC847534A1D642DBAAFE71

Fee Payment

Transaction by:	The application fee payment transaction was made by SHIRLEY YANG
Paid by:	The application fee was paid by SHIRLEY YANG
Fee Amount:	\$300.00
Paid Date:	The application fee was paid on 2024-06-27
Transaction/Voucher number:	The transaction number is 582EA000615822 and the voucher number is 711240

Submission

Reference Number:	The application reference number is 664613
Submitted by:	The application was submitted by ER106371/Carolyn A Wood
Submitted Timestamp:	The application was submitted on 2024-07-01 at 15:49:25 CDT
Submitted From:	The application was submitted from IP address 192.31.242.194
Confirmation Number:	The confirmation number is 548895
Steers Version:	The STEERS version is 6.78

Additional Information

Application Creator: This account was created by Carolyn A Wood



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the industrial wastewater permit application.

APPLICANT NAME: Space Exploration Technologies Corp.

PERMIT NUMBER (If new, leave blank): WQ00 Click to enter text.

Indicate if each of the following items is included in your application.

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 8.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 9.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 10.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plain Language Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 4.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Solids Management Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water Balance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 6.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Worksheet 7.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

For TCEQ Use Only

Segment Number _____ County _____
 Expiration Date _____ Region _____
 Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use the Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst¹](#)).

Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.
 Applicant Name: Space Exploration Technologies Corp.
 Permit No.: WQ000Click to enter text.
 EPA ID No.: TX0Click to enter text.
 Expiration Date: Click to enter text.
- b. Check the box next to the appropriate authorization type.
 Industrial Wastewater (wastewater and stormwater)
 Industrial Stormwater (stormwater only)
- c. Check the box next to the appropriate facility status.
 Active Inactive
- d. Check the box next to the appropriate permit type.
 TPDES Permit TLAP TPDES with TLAP component
- e. Check the box next to the appropriate application type.
 New
 Renewal with changes Renewal without changes
 Major amendment with renewal Major amendment without renewal
 Minor amendment without renewal
 Minor modification without renewal
- f. If applying for an amendment or modification, describe the request: Click to enter text.

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____

Permit Number _____

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input checked="" type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ²	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

h. Payment Information

Mailed

Check or money order No.: [Click to enter text.](#)

Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

Epay

Voucher number: 711240

Copy of voucher attachment: Attached Copy of Voucher Receipt

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: CNCN602867657

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)³.

b. Legal name of the entity (applicant) applying for this permit: Space Exploration Technologies Corp

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

Title: [Click to enter text.](#) Credential: [Click to enter text.](#)

d. Will the applicant have overall financial responsibility for the facility?

² All facilities are designated as minors until formally classified as a major by EPA.

³ <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

Yes No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 27)

Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: [Click to enter text.](#)

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): [Click to enter text.](#)

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

Title: [Click to enter text.](#) Credential: [Click to enter text.](#)

d. Will the co-applicant have overall financial responsibility for the facility?

Yes No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 27)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: [A](#)

Item 5. Application Contact Information (Instructions, Page 27)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. Administrative Contact Technical Contact

Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr Environmental Regulatory Engineer Credential: [Click to enter text.](#)

Organization Name: SpaceX

Mailing Address: 1 Rocket Rd. City/State/Zip: Brownsville/TX/78521

Phone No: (323) 537-001 Email: carolyn.wood@spacex.com

b. Administrative Contact Technical Contact

Prefix: Mrs. Full Name (Last/First Name): Groom/Katy

Title: Manager, Environmental Regulatory Affairs Credential: [Click to enter text.](#)

Organization Name: SpaceX

Mailing Address: L6-1581 Roberts Rd.
Center/FL/32815

City/State/Zip: Kennedy Space

Phone No: (321) 730-1469

Email: katy.groom@spacex.com

Attachment: Click to enter text.

Item 6. Permit Contact Information (Instructions, Page 28)

Provide two names of individuals that can be contacted throughout the permit term.

a. Prefix: Mrs. Full Name (Last/First Name): Groom/Katy

Title: Manager, Environmental Regulatory Affairs Credential: Click to enter text.

Organization Name: SpaceX

Mailing Address: L6-1581 Roberts Rd.
Center/FL/32815

City/State/Zip: Kennedy Space

Phone No: (321) 730-1469

Email: Katy.Groom@spacex.com

b. Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr Environmental Regulatory Engineer Credential: Click to enter text.

Organization Name: SpaceX

Mailing Address: 1 Rocket Rd.

City/State/Zip: Brownsville/TX/78521

Phone No: (323) 537-0071

Email: Carolyn.wood@spacex.com

Attachment: Click to enter text.

Item 7. Billing Contact Information (Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for permits **in effect on September 1 of each year**. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr. Environmental Regulatory Engineer

Credential: Click to enter text.

Organization Name: SpaceX

Mailing Address: 1 Rocket Rd.

City/State/Zip: Brownsville/TX/78521

Phone No: (323) 537-0071

Email: Carolyn.wood@spacex.com

Item 8. DMR/MER Contact Information (Instructions, Page 28)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr. Environmental Regulatory Engineer

Credential: Click to enter text.

Organization Name: SpaceX

Mailing Address: 1 Rocket Rd.

City/State/Zip: Brownsville/TX/78521

Phone No: (323) 537-0071

Email: Carolyn.wood@spacex.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr. Environmental Regulatory Engineer

Credential: Click to enter text.

Organization Name: SpaceX

Mailing Address: 1 Rocket Rd.

City/State/Zip: Brownsville/TX/78521

Phone No: (323) 537-0071

Email: Carolyn.wood@spacex.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

E-mail: Carolyn.wood@spacex.com

Fax: Click to enter text.

Regular Mail (USPS)

Mailing Address: 1 Rocket Rd.

City/State/Zip Code: Brownsville/TX/78521

c. Contact in the Notice

Prefix: Mrs. Full Name (Last/First Name): Wood/Carolyn

Title: Sr. Environmental Regulatory Engineer

Credential: Click to enter text.

Organization Name: SpaceX

Phone No: (323) 537-0071

Email: Click to enter text.

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: Port Isabel Public Library

Location within the building: Circulation Desk

Physical Address of Building: 213 N Yturria St.

City: Port Isabel County: Cameron

e. Bilingual Notice Requirements

This information is required for new, major amendment, minor amendment or minor modification, and renewal applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

Yes No

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

Yes No

3. Do the students at these schools attend a bilingual education program at another location?

Yes No

4. Would the school be required to provide a bilingual education program, but the school has waived out of this requirement under 19 TAC §89.1205(g)?

Yes No N/A

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

f. Plain Language Summary Template - Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment. Attachment: B "Plain Language Summary"

g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: C "Public Involvement Plan (PIP)"

Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

a. TCEQ issued Regulated Entity Number (RN), if available: RN111606745

Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ’s Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

b. Name of project or site (the name known by the community where located): Starbase Launch Pad Site

c. Is the location address of the facility in the existing permit the same?

Yes No N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

d. Owner of treatment facility:

Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.

or Organization Name: Space Exploration Technologies Corp

Mailing Address: 1 Rocket Rd. City/State/Zip: Brownsville, TX 78521

Phone No: [Click to enter text.](#) Email: [Click to enter text.](#)

e. Ownership of facility: Public Private Both Federal

f. Owner of land where treatment facility is or will be: Space Exploration Technologies Corp.

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: Space Exploration Technologies Corp.

Mailing Address: 1 Rocket Rd City/State/Zip: Brownsville, TX 78521

Phone No: [Click to enter text.](#) Email: [Click to enter text.](#)

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: [Click to enter text.](#)

g. Owner of effluent TLAP disposal site (if applicable): NA

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#) City/State/Zip: [Click to enter text.](#)

Phone No: [Click to enter text.](#) Email: [Click to enter text.](#)

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: [Click to enter text.](#)

h. Owner of sewage sludge disposal site (if applicable):

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#) City/State/Zip: [Click to enter text.](#)

Phone No: [Click to enter text.](#) Email: [Click to enter text.](#)

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: [Click to enter text.](#)

Item 11. TD PES Discharge/TLAP Disposal Information (Instructions, Page 31)

a. Is the facility located on or does the treated effluent cross Native American Land?

Yes No

b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.

One-mile radius

Three-miles downstream information

Applicant's property boundaries

Treatment facility boundaries

Labeled point(s) of discharge

Highlighted discharge route(s)

Effluent disposal site boundaries

All wastewater ponds

Sewage sludge disposal site

New and future construction

Attachment: D “USGS Topographic Map”

c. Is the location of the sewage sludge disposal site in the existing permit accurate?

Yes No or New Permit

If no, or a new application, provide an accurate location description: NA

d. Are the point(s) of discharge in the existing permit correct?

Yes No or New Permit

If no, or a new application, provide an accurate location description: NA

e. Are the discharge route(s) in the existing permit correct?

Yes No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: NA

f. City nearest the outfall(s): Brownsville

g. County in which the outfalls(s) is/are located: Cameron

h. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

Yes No

If yes, indicate by a check mark if: Authorization granted Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: NA

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: NA

i. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

Yes No or New Permit NA

If no, or a new application, provide an accurate location description: Click to enter text.

j. City nearest the disposal site: Click to enter text.

k. County in which the disposal site is located: Click to enter text.

l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Click to enter text.

m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Click to enter text.

Item 12. Miscellaneous Information (Instructions, Page 33)

- a. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

Yes No

If yes, list each person: Carolyn A. Wood

- b. Do you owe any fees to the TCEQ?

Yes No

If yes, provide the following information:

Account no.: Click to enter text.

Total amount due: Click to enter text.

- c. Do you owe any penalties to the TCEQ?

Yes No

If yes, provide the following information:

Enforcement order no.: Click to enter text.

Amount due: Click to enter text.

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ000 Click to enter text.

Applicant Name: Space Exploration Technologies, Corp.

Certification: I, Katy Groom, 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Katy Groom

Signatory title: Manager of Environmental regulatory Affairs

Signature: [Handwritten Signature]
(Use blue ink)

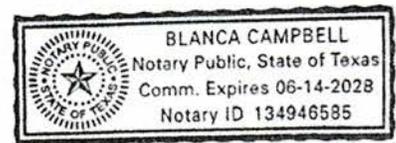
Date: 6/28/2024

Subscribed and Sworn to before me by the said Blanca Campbell
on this 28 day of June, 2024.

My commission expires on the 14 day of June, 2028.

Blanca Campbell
Notary Public

[SEAL]



Cameron
County, Texas

Note: *If co-applicants are necessary, each entity must submit an original, separate signature page.*

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. Affected Landowner Information (Instructions, Page 35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- The applicant's property boundaries.
 - The facility site boundaries within the applicant's property boundaries.
 - The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: E "Affected Land Owner Map"

- b. Check the box next to the format of the landowners list:

Readable/Writeable CD Four sets of labels

Attachment: F "Landowner List"

- d. Provide the source of the landowners' names and mailing addresses: Cameron County Appraisal District

- e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

Yes No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s): [Click to enter text.](#)

Item 2. Original Photographs (Instructions, Page 37)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- At least one original photograph of the new or expanded treatment unit location.
- At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- At least one photograph of the existing/proposed effluent disposal site.
- A plot plan or map showing the location and direction of each photograph.

Attachment: [G "Original Photographs"](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: NA

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)
FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL
TPDES WASTEWATER PERMIT APPLICATIONS**

TCEQ USE ONLY:
Application type: ___Renewal ___Major Amendment ___Minor Amendment New
County: Cameron Segment Number: 2301
Admin Complete Date: _____
Agency Receiving SPIF:
___Texas Historical Commission U.S. Fish and Wildlife
 Texas Parks and Wildlife Department ___ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division’s Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Space Exploration Technologies Corp

Permit No. WQ00

EPA ID No. TX

Address of the project (or a location description that includes street/highway, city/vicinity, and county):

SpaceX Launch Pad Site, located on the south side of the easternmost terminus of SH 4, Cameron County, Texas.

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mrs.

First and Last Name: Katy Groom

Credential (P.E, P.G., Ph.D., etc.):

Title: Manager, Environmental Regulatory Affairs

Mailing Address: L6-1581 Roberts Rd

City, State, Zip Code: Kennedy Space Center, FL 32815

Phone No.: 321-730-1469 Ext.: Fax No.:

E-mail Address: Katy.Groom@spacex.com

- 2. List the county in which the facility is located: Cameron
- 3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

- 4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The discharge route is to mudflats immediately outside of the containment area and approximately southwest of the launch pad, south to the final segment, 2301, of the Rio Grande River.

- 5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- Proposed access roads, utility lines, construction easements
- Visual effects that could damage or detract from a historic property's integrity
- Vibration effects during construction or as a result of project design
- Additional phases of development that are planned for the future

Sealing caves, fractures, sinkholes, other karst features

Disturbance of vegetation or wetlands

1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

N/A

2. Describe existing disturbances, vegetation, and land use:

No current land use

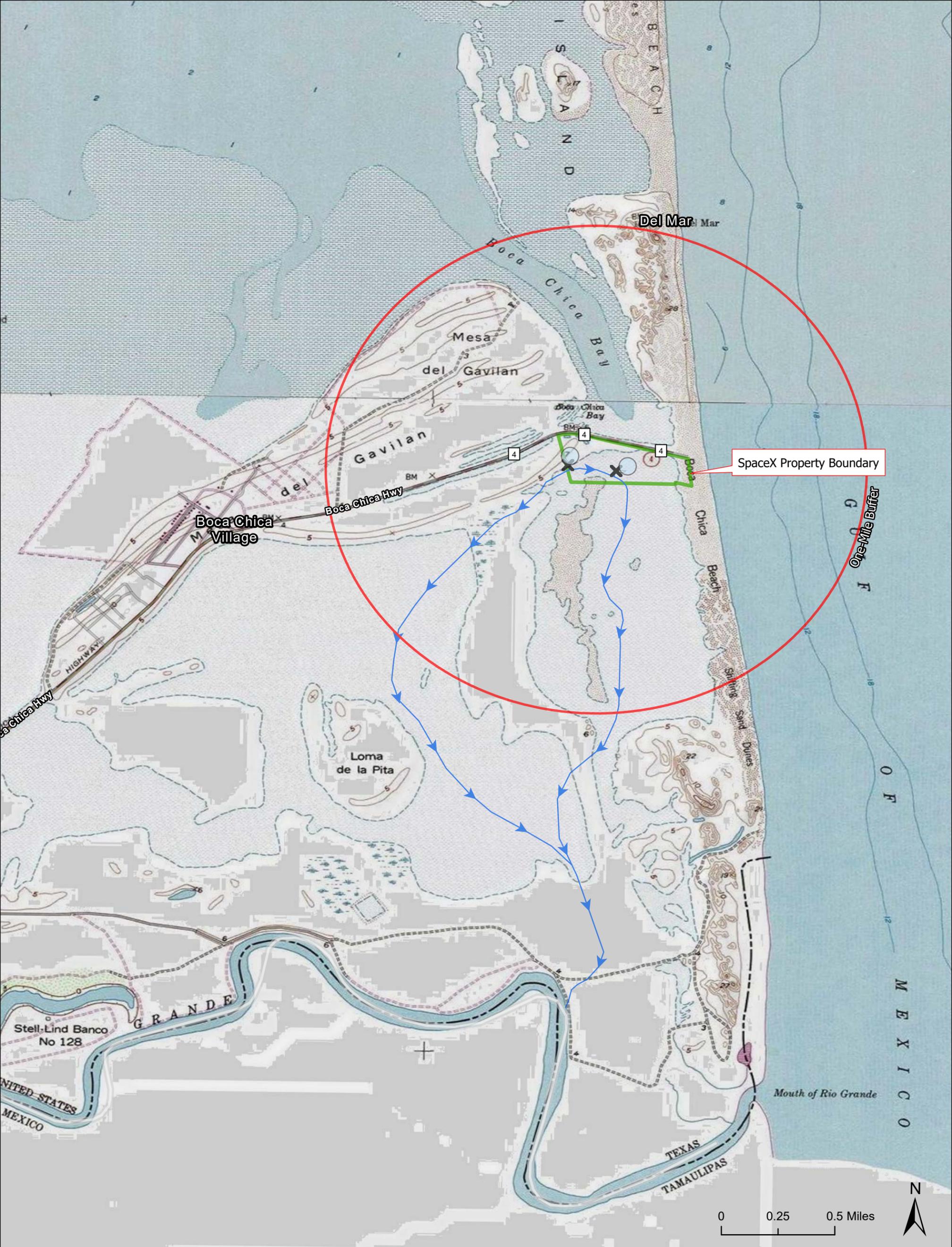
THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

3. List construction dates of all buildings and structures on the property:

N/A

4. Provide a brief history of the property, and name of the architect/builder, if known.

SpaceX launch facilities



SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow



WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if mailing the payment. (Instructions, Page 36-37)

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Permit No: WQ000** [Click to enter text.](#)

1. Check or Money Order Number: [Click to enter text.](#)
2. Check or Money Order Amount: [Click to enter text.](#)
3. Date of Check or Money Order: [Click to enter text.](#)
4. Name on Check or Money Order: [Click to enter text.](#)

5. APPLICATION INFORMATION

Name of Project or Site: [Click to enter text.](#)

Physical Address of Project or Site: [Click to enter text.](#)

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Attachment: [Click to enter text.](#)

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Item 1. Individual information (Instructions, Page 38)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., or Miss): [Click to enter text.](#)

Full legal name (first, middle, and last): [Click to enter text.](#)

Driver's License or State Identification Number: [Click to enter text.](#)

Date of Birth: [Click to enter text.](#)

Mailing Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone No.: [Click to enter text.](#)

Fax No.: [Click to enter text.](#)

E-mail Address: [Click to enter text.](#)

CN: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of industrial wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305 by checking the box next to the item. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until all items below are addressed.

- Core Data Form (TCEQ Form No. 10400)
*(Required for all applications types. Must be completed in its entirety and signed.
Note: Form may be signed by applicant representative.)*
- Correct and Current Industrial Wastewater Permit Application Forms
(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)
- Water Quality Permit Payment Submittal Form (Page 14)
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
- 7.5 Minute USGS Quadrangle Topographic Map Attached
*(Full-size map if seeking "New" permit.
8 ½ x 11 acceptable for Renewals and Amendments.)*
- N/A Current/Non-Expired, Executed Lease Agreement or Easement Attached
- N/A Landowners Map
(See instructions for landowner requirements.)

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

- N/A Landowners Cross Reference List
(See instructions for landowner requirements.)
- N/A Landowners Labels or CD-RW attached
(See instructions for landowner requirements.)
- Original signature per 30 TAC § 305.44 - Blue Ink Preferred
*(If signature page is not signed by an elected official or principle executive officer,
a copy of signature authority/delegation letter must be attached.)*
- Plain Language Summary

From: steers@tceq.texas.gov
To: [Carolyn Wood](#)
Subject: TCEQ ePay Receipt for 582EA000615822
Date: Thursday, June 27, 2024 5:12:23 PM

This is an automated message from the TCEQ ePay system. Please do not reply.

Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
TCEQ Amount: \$350.00
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Actor: CAROLYN WOOD
Email: carolyn.wood@spacex.com

Payment Contact: SHIRLEY YANG
Phone: 310-363-6000
Company: SPACEX
Address: 1 ROCKET ROAD, HAWTHORNE, CA 90250

Fees Paid:
Fee Description AR Number Amount
WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW \$300.00
30 TAC 305.53B WQ NOTIFICATION FEE \$50.00

TCEQ Amount: \$350.00

=====
Voucher: 711240
Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
Voucher Amount: \$300.00
Fee Paid: WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW
Site Name: STARBASE LAUNCH PAD
Site Location: SH4 BOCA CHICA TEXAS 78521
CN Number: CN602867657
Customer Name: SPACE EXPLORATION TECHNOLOGIES CORP
State Franchise Tax ID: 10106276719
Customer Address: 1 ROCKET RD, HAWTHORNE, CA 90250 6844
Comments: Industrial Wastewater Permit Application Fee

Voucher: 711241
Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
Voucher Amount: \$50.00
Fee Paid: 30 TAC 305.53B WQ NOTIFICATION FEE

=====
To print out a copy of the receipt and vouchers for this transaction
either click on or copy and paste the following url into your browser:
https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace_num_txt=582EA000615822.

This e-mail transmission and any attachments are believed to have been sent free of any virus or other defect that might affect

any computer system into which it is received and opened. It is, however, the recipient's responsibility to ensure that the e-mail transmission and any attachments are virus free, and the sender accepts no responsibility for any damage that may in any way arise from their use.



Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
ePay Actor: CAROLYN WOOD
Actor Email: carolyn.wood@spacex.com
IP: 192.31.242.194
TCEQ Amount: \$350.00
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: SHIRLEY YANG
Company: SPACEX
Address: 1 ROCKET ROAD, HAWTHORNE, CA 90250
Phone: 310-363-6000

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
711240	WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW		\$300.00
711241	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$350.00

[ePay Again](#)

[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

Attachment A



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 6028676S7		RN 111606745

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)		<input type="checkbox"/> Change in Regulated Entity Ownership	
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		<i>If new Customer, enter previous Customer below:</i>	
Space Exploration Technologies Corp.			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
805421124	1-01-062767	01-0627671	120-406-462
11. Type of Customer:		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:			
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant			
15. Mailing Address:		1 Rocket Road	
City	Hawthorne	State	CA
ZIP	90250	ZIP + 4	6844
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information**21. General Regulated Entity Information** (If "New Regulated Entity" is selected, a new permit application is also required.)
 New Regulated Entity
 Update to Regulated Entity Name
 Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

Starbase Launch Pad Site

23. Street Address of the Regulated Entity:

1 Rocket Road

(No PO Boxes)

City	Brownsville	State	TX	ZIP	78521	ZIP + 4	0008
------	-------------	-------	----	-----	-------	---------	------

24. County

Cameron

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:**26. Nearest City****State****Nearest ZIP Code**

Brownsville

TX

78521

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:

25.996969

28. Longitude (W) In Decimal:

-97.156269

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29. Primary SIC Code**30. Secondary SIC Code****31. Primary NAICS Code****32. Secondary NAICS Code**

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

3761

33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)

Launch site

34. Mailing

1 Rocket Road

Address:

City	Brownsville	State	TX	ZIP	78521	ZIP + 4	8
------	-------------	-------	----	-----	-------	---------	---

35. E-Mail Address:**36. Telephone Number****37. Extension or Code****38. Fax Number** (if applicable)

(323) 537-71

() -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

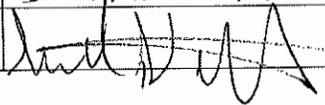
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input checked="" type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input checked="" type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name: Carolyn A. Wood	41. Title: Sr. Enviro Regulatory Engineer		
42. Telephone Number (323) 537-0071	43. Ext./Code	44. Fax Number () -	45. E-Mail Address carolyn.wood@spacex.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company: Space exploration technologies	Job Title: EHS Manager
Name (In Print): Samantha Stecher-Stroud	Phone: 210913 0901
Signature: 	Date: 6.7.2024

Attachment B



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Space Exploration Technologies Corp. (CN602867657) operates Starbase Launch Pad Site (RN111606745), a water deflector system. The facility is located at the south side of the eastern terminus of State Highway 4, in Brownsville, Cameron County, Texas 78521. The purpose of this application is to obtain a discharge permit for non-process deluge system water that is utilized during launch operations.

Discharges from the facility are expected to contain total dissolved solids, nitrate-nitrogen, phosphorus, total dissolved solids, sulfate, chloride, fluoride, aluminum, cadmium, chromium, copper, cyanide, and zinc. Wastewater will be treated by reusing deluge and pretreatment required.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

Space Exploration Technologies Corp. (CN602867657) opera Starbase Launch Pad Site RN111606745, un deluge system. La instalación está ubicada en the south side of the eastern terminus of State Highway 4, en Brownsville, Condado de Cameron, Texas 78521. Obtener un permiso de descarga para el agua del Sistema de diluvio que no es de proceso y que se utiliza durante las operaciones de lanzamiento..

Se espera que las descargas de la instalación contengan solidos disueltos totales, nitrogeno-nitrato, fosforo, sulfato, cloruro, fluoruro, aluminio, cadmio, cromo, cobre, zinc y cianuro . Aguas residuals industriales. está tratado por mediante reutilizacion de agua de diluvio y pretratamiento degun sea necesario.

Total

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Attachment C



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

New Permit or Registration Application

New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, **and**

Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary.
Stop after Section 2 and submit the form.**

Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire
Radioactive Material Licensing Underground Injection Control

Water Quality

Texas Pollutant Discharge Elimination System (TPDES)
Texas Land Application Permit (TLAP)
State Only Concentrated Animal Feeding Operation (CAFO)
Water Treatment Plant Residuals Disposal Permit
Class B Biosolids Land Application Permit
Domestic Septage Land Application Registration

Water Rights New Permit

New Appropriation of Water
New or existing reservoir

Amendment to an Existing Water Right

Add a New Appropriation of Water
Add a New or Existing Reservoir
Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

City

County

Census Tract

- (a) Percent of people over 25 years of age who at least graduated from high school

- (b) Per capita income for population near the specified location

- (c) Percent of minority population and percent of population by race within the specified location

- (d) Percent of Linguistically Isolated Households by language within the specified location

- (e) Languages commonly spoken in area by percentage

- (f) Community and/or Stakeholder Groups

- (g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

Yes No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

Yes No

If Yes, please describe.

If you answered “yes” that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

Yes No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

- Publish in alternative language newspaper
- Posted on Commissioner’s Integrated Database Website
- Mailed by TCEQ’s Office of the Chief Clerk
- Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

Yes No

(e) If a public meeting is held, will a translator be provided if requested?

Yes No

(f) Hard copies of the application will be available at the following (check all that apply):

- TCEQ Regional Office TCEQ Central Office
- Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

Yes No

What types of notice will be provided?

- Publish in alternative language newspaper
- Posted on Commissioner’s Integrated Database Website
- Mailed by TCEQ’s Office of the Chief Clerk
- Other (specify)



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

Item 1. Facility/Site Information (Instructions, Page 39)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

Starbase Launch Pad Site serves as site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicle. Applicable SIC codes include 3761 GUIDED MISSILES AND SPACE VEHICLES.

- b. Describe all wastewater-generating processes at the facility.

Discharge water will consist of minor amounts of deluge water not captured by the containment area during vehicle launch activities, deluge water captured by the containment area in retention pond and stormwater.

¹

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Source water (potable, raw, and Type 1 reclaimed water)		Heat
		Combustion products of liquid oxygen and liquid methane (CO2 and water)

Attachment: N/A

d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: H Facility Map

e. Is this a new permit application for an existing facility?

- Yes No

If **yes**, provide background discussion: Obtain additional permit coverage for deluge discharge.

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

- Yes No

List source(s) used to determine 100-year frequency flood plain: FEMA

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Elevation 10

Attachment: I 100-yr Flood Map

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?
 Yes No N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

Yes No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide an approximate date of application submittal to the USACE: [Click to enter text.](#)

Item 2. Treatment System (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Deluge water would be reused in the deluge system. Sedimentation controls would be utilized to be used/proposed to prepare industrial wastewater for re-use.

b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: [J Water Balance](#)

Item 3. Impoundments (Instructions, Page 40)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

Yes No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a - 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	C	C		
Associated Outfall Number	001	002		
Liner Type (C) (I) (S) or (A)	N	N		
Alt. Liner Attachment Reference	N	N		
Leak Detection System, Y/N	N	N		
Groundwater Monitoring Wells, Y/N	N	N		
Groundwater Monitoring Data Attachment	N	N		
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	N	N		
Length (ft)	180 ft	180 ft		
Width (ft)	45 ft	45 ft		
Max Depth From Water Surface (ft), Not Including Freeboard	4.5 ft	4.5 ft		
Freeboard (ft)	2 ft	2 ft		
Surface Area (acres)	7,500 sq ft	7,500 sq ft		
Storage Capacity (gallons)	273,000 gal	273,000 gal		

Parameter	Pond #	Pond #	Pond #	Pond #
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction	2023	2024		

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

1. Liner data

Yes No Not yet designed

2. Leak detection system or groundwater monitoring data

Yes No Not yet designed

3. Groundwater impacts

Yes No Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: N/A

d. Attach copies of State Water Well Reports (e.g., driller’s logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A

e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. E1 for evaporation pond 1, I2 for irrigation area No. 2, etc.).

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	25.996058	-97.155238
002	25.9961862	-97.1582205

Outfall Location Description

Outfall No.	Location Description
001	To mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	To mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.9961862, -97.1582205.

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
001	To mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	To mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.9961862, -97.1582205.

Outfall Flow Information - Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	Variable	Variable	Variable	Variable	Variable
002	Variable	Variable	Variable	Variable	Variable

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N/A	Y	N/A
002	N/A	Y	N/A

Outfall Discharge - Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	Y	N	N	Variable	Variable	Variable
002	Y	N	N	Variable	Variable	Variable

Outfall Wastestream Contributions

Outfall No. 001

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable

Outfall No. 002

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. [Click to enter text.](#)

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: [Click to enter text.](#)

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

- Yes No Use cooling towers that discharge blowdown or other wastestreams
- Yes No Use boilers that discharge blowdown or other wastestreams
- Yes No Discharge once-through cooling water

NOTE: If the facility uses or plans to use cooling towers or once-through cooling water, Item 12 is required.

b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms

- Concentration of whole product or active ingredient, as appropriate, in wastestream.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: N/A

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

- Yes No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Automotive maintenance

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - Facility is a POTW. Complete Worksheet 5.0.
 - Domestic sewage is not generated on-site.
 - Other (e.g., portable toilets), specify and Complete Item 7.b: Click to enter text.

- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Starbase WWTP/Space Exploration Technologies (sludge hauler)	2E0000327/sludge ID no. 26143

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
 Yes No
- b. Has the permittee completed or planned for any improvements or construction projects?
 Yes No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: SpaceX is working closely with the TCEQ and the US EPA to obtain additional expedited permit coverage order to comply with the terms of an Administrative Order.

Item 9. Toxicity Testing (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

- Yes No

If **yes**, identify the tests and describe their purposes: [Click to enter text.](#)

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** [Click to enter text.](#)

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?
 Yes No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:
- List of wastes received (including volumes, characterization, and capability with on-site wastes).
 - Identify the sources of wastes received (including the legal name and addresses of the generators).

- Description of the relationship of waste source(s) with the facility's activities.

Attachment: [Click to enter text.](#)

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

Yes No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: [Click to enter text.](#)

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

Yes No

If **yes**, **Worksheet 6.0** of this application **is required**.

Item 11. Radioactive Materials (Instructions, Page 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

a. Does the facility use or propose to use water for cooling purposes?

- Yes No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

- Yes No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID				
Owner				
Operator				

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

- Yes No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. [Click to enter text.](#)

3. Cooling water is/will be obtained from a reclaimed water source?

- Yes No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: [Click to enter text.](#)

4. Cooling water is/will be obtained from an Independent Supplier

- Yes No

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed: [Click to enter text.](#)

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

- Yes No

2. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

Yes No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

Yes No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: [Click to enter text.](#)

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

Yes No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

Yes No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

Yes No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I - New facility subject to 40 CFR Part 125, Subpart I

Yes No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

Track I - AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

Track I - AIF greater than 10 MGD

- Attach information required by *40 CFR § 125.86(b)*.

Track II

- Attach information required by *40 CFR § 125.86(c)*.

Attachment: [Click to enter text.](#)

2. Phase II - Existing facility subject to 40 CFR Part 125, Subpart J

Yes No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

3. Phase III - New facility subject to 40 CFR Part 125, Subpart N

Yes No

If **yes**, check the box next to the compliance track selection and provide the requested information.

Track I - Fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

Track I - Not a fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).

Track II - Fixed facility

- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: [Click to enter text.](#)

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

Yes No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Click to enter text.

b. Is the facility requesting any **minor amendments** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or

- performing work for another company with a unit located in the same site; or
- performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Katy Groom

Title: Manager of Environmental Regulatory Affairs

Signature: *Katy Groom*

Date: _6/29/24

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

Yes No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information below.

40 CFR Effluent Guideline

Industry	40 CFR Part

Item 2. Production/Process Data (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by *40 CFR Part 414, Appendices A and B*.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
N/A			

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

Click to enter text.

Item 3. Process/Non-Process Wastewater Flows (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Wastewater flows generated by the facility include stormwater and deluge water that flows from storage tanks on site through the deluge systems when activated for routine maintenance, fire and dust suppression during launch and test operations. Deluge system discharges would be authorized for discharge under this permit via discharge during the operation and from the retention ponds via discharge valve.

Item 4. New Source Determination (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater Generating Processes Subject to Effluent Guidelines

Process	EPA Guideline Part	EPA Guideline Subpart	Date Process/Construction Commenced
N/A			

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

Worksheet 2.0 is **required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

Item 1. General Testing Requirements (Instructions, Page 55)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm.
Attachment: [Click to enter text.](#)

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [K SPL Laboratories Data](#)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	8.49	3.56		
CBOD (5-day)	2.08	<2.00		
Chemical oxygen demand	<20.0	<20.0		
Total organic carbon	3.53	3.61		
Dissolved oxygen	NA	7.1		
Ammonia nitrogen	0.121	0.211		
Total suspended solids	7.50	7.10		
Nitrate nitrogen	1.20	1.20		
Total organic nitrogen	<0.050	0.161		
Total phosphorus	0.0241	0.017		
Oil and grease	3.60	<4.60		
Total residual chlorine	0.20	Negative		

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total dissolved solids	950	800		
Sulfate	282	281		
Chloride	182	197		
Fluoride	0.970	1.24		
Total alkalinity (mg/L as CaCO3)	136	106		
Temperature (°F)	28.1	38		
pH (standard units)	6.97	8.6		

Table 2 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	70.2	61.5			2.5
Antimony, total	1.89	1.12			5
Arsenic, total	1.88	0.0169			0.5
Barium, total	94.3	85			3
Beryllium, total	0	0			0.5
Cadmium, total	0.107	0			1
Chromium, total	1.55	0.282			3
Chromium, hexavalent	<3.00	25.9			3
Chromium, trivalent	0	0			N/A
Copper, total	9.49	0.0747			2
Cyanide, available	0	1.02			2/10
Lead, total	0	0			0.5
Mercury, total	113	0.139			0.005/0.0005
Nickel, total	6.26	0.0224			2
Selenium, total	2.86	0			5
Silver, total	0	0			0.5
Thallium, total	0	0.616			0.5
Zinc, total	1420	4.3			5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	<1.00	<1.00			50
Anthracene	<0.988	<1.06			10
Benzene	<1.00	<1.00			10
Benzidine	<1.48	<1.60			50
Benzo(a)anthracene	<0.988	<1.06			5
Benzo(a)pyrene	<0.988	<1.06			5
Bis(2-chloroethyl)ether	<0.988	<1.06			10
Bis(2-ethylhexyl)phthalate	<7.41	<7.99			10
Bromodichloromethane [Dichlorobromomethane]	<1.00	<1.00			10
Bromoform	<1.00	<1.00			10
Carbon tetrachloride	<1.00	<1.00			2
Chlorobenzene	<1.00	<1.00			10
Chlorodibromomethane [Dibromochloromethane]	<1.00	<1.00			10
Chloroform	<1.00	<1.00			10
Chrysene	<0.988	<1.06			5
m-Cresol [3-Methylphenol]	<7.91	<8.52			10
o-Cresol [2-Methylphenol]	<9.88	<10.0			10
p-Cresol [4-Methylphenol]	<7.91	<8.52			10
1,2-Dibromoethane	<1.00	<1.00			10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.00	<1.00			10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.00	<1.00			10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.00	<1.00			10
3,3'-Dichlorobenzidine	<1.97	<2.13			5
1,2-Dichloroethane	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.00	<1.00			10
Dichloromethane [Methylene chloride]	<1.02	<1.02			20
1,2-Dichloropropane	<1.00	<1.00			10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.00	<1.00			10
2,4-Dimethylphenol	<0.988	<1.06			10
Di-n-Butyl phthalate	<7.41	<7.99			10
Ethylbenzene	<1.00	<1.00			10
Fluoride	970	1240			500
Hexachlorobenzene	<0.988	<1.06			5
Hexachlorobutadiene	<1.02	<1.10			10
Hexachlorocyclopentadiene	<0.988	<1.06			10
Hexachloroethane	<1.98	<2.13			20
Methyl ethyl ketone	<1.00	<1.00			50
Nitrobenzene	<0.988	<1.06			10
N-Nitrosodiethylamine	<0.988	<1.06			20
N-Nitroso-di-n-butylamine	<0.988	<1.06			20
Nonylphenol	<33.6	<34.8			333
Pentachlorobenzene	<0.988	<1.06			20
Pentachlorophenol	<4.94	<5.00			5
Phenanthrene	<0.988	<1.06			10
Polychlorinated biphenyls (PCBs) (**)	<0.334	<0.197			0.2
Pyridine	<1.33	<1.44			20
1,2,4,5-Tetrachlorobenzene	<1.02	<1.10			20
1,1,2,2-Tetrachloroethane	<1.00	<1.00			10
Tetrachloroethene [Tetrachloroethylene]	<1.00	<1.00			10
Toluene	<1.00	<1.00			10
1,1,1-Trichloroethane	<1.00	<1.00			10
1,1,2-Trichloroethane	<1.00	<1.00			10
Trichloroethene [Trichloroethylene]	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
2,4,5-Trichlorophenol	<4.94	<5.32			50
TTHM (Total trihalomethanes)	0	0			10
Vinyl chloride	<1.00	<1.00			10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a “<”.

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

- Yes No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- Manufacturers and formulators of tributyltin or related compounds.
- Painting of ships, boats and marine structures.
- Ship and boat building and repairing.
- Ship and boat cleaning, salvage, wrecking and scaling.
- Operation and maintenance of marine cargo handling facilities and marinas.
- Facilities engaged in wood preserving.
- Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

- Yes No

Domestic wastewater is/will be discharged.

- Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

Yes No

Domestic wastewater is/will be discharged.

Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 is required for all external outfalls which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

N/A

Table 5 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>					400
Color (PCU)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfite (as SO3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Boron, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Cobalt, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.702	0.199			7
Magnesium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.059	0.0163			0.5
Molybdenum, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					5
Titanium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

Attachment: N/A

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- hexachlorophene (HCP) CASRN 70-30-4
- None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- Yes No

Description: Click to enter text.

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/A

Samples are (check one): Composite Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 is required for all external outfalls as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

Yes No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

Yes No

If yes to either Items a or b, complete Table 13 as instructed.

Table 13 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

This worksheet **is required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

Item 1. Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

- | | |
|--|---|
| <input type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

Item 2. Land Application Area (Instructions, Page 69)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
N/A			

Item 3. Annual Cropping Plan (Instructions, Page 69)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

Attachment:

Item 4. Well and Map Information (Instructions, Page 70)

a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- The exact boundaries of the land application area
- On-site buildings
- Waste-disposal or treatment facilities
- Effluent storage and tailwater control facilities
- Buffer zones
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: N/A

b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
N/A				

Attachment: Click to enter text.

c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

- Yes No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: Click to enter text.

d. Attach a short groundwater technical report using *30 TAC § 309.20(a)(4)* as guidance.

Attachment:

Item 5. Soil Map and Soil Information (Instructions, Page 71)

Check each box to confirm that the following information is attached:

- a. USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
- b. Breakdown of acreage and percent of total acreage for each soil type.
- c. Copies of laboratory soil analyses. **Attachment:** [Click to enter text.](#)

Item 6. Effluent Monitoring Data (Instructions, Page 72)

- a. Completion of Table 14 **is required** for all **renewal** and **major amendment** applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 14 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
N/A							

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)

b. Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)								
N/A								

c. Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken. Attachment: [Click to enter text.](#)

Item 7. Pollutant Analysis (Instructions, Page 72)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Tables 15 and 16.

Table 15 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	8.49	3.56		
CBOD (5-day)	2.05	<2.00		
Chemical oxygen demand	<20.0	<20.0		
Total organic carbon	3.53	3.61		
Dissolved oxygen	NA	7.1		
Ammonia nitrogen	121	211		
Total suspended solids	7.50	7.10		
Nitrate nitrogen	1.20	1.20		
Total organic nitrogen	50	0.161		
Total phosphorus	0.0241	170		
Oil and grease	3.60	<4.60		
Total residual chlorine	0.20	Negative		
Total dissolved solids	950	800		
Sulfate	2820	281		
Chloride	1820	197		
Fluoride	970	1.24		
Total alkalinity (mg/L as CaCO ₃)	136	106		
Temperature (°F)	28.1	38		
pH (standard units)	6.97	8.6		

Table 16 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	70.2	6.15			2.5
Antimony, total	1.89	1.12			5
Arsenic, total	1.88	0.0169			0.5
Barium, total	94.3	85			3

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Beryllium, total	0	0			0.5
Cadmium, total	0.107	0			1
Chromium, total	1.55	0.000282			3
Chromium, hexavalent	0	25.9			3
Chromium, trivalent	0	0			N/A
Copper, total	9.49	0.0747			2
Cyanide, available	0	3.4			2/10
Lead, total	0	0			0.5
Mercury, total	<0.113	139			0.005/0.0005
Nickel, total	6.26	0.0224			2
Selenium, total	28.6	0			5
Silver, total	0	0			0.5
Thallium, total	0	0.616			0.5
Zinc, total	1420	4.3			5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

This worksheet **is required** for all applications for a permit to disposal of wastewater by surface land application or evaporation.

Item 1. Edwards Aquifer (Instructions, Page 73)

a. Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

- Yes No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b and 1.c.

b. Check the box next to the subchapter applicable to the facility.

- 30 TAC Chapter 213, Subchapter A
 30 TAC Chapter 213, Subchapter B

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) **or** 2) a report that contains the following:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

Item 2. Surface Spray/Irrigation (Instructions, Page 73)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): N/A

Design application rate (acre-ft/acre/yr): N/A

Design application frequency (hours/day): N/A

Design application frequency (days/week): N/A

Design total nitrogen loading rate (lbs nitrogen/acre/year): N/A

Average slope of the application area (percent): N/A

Maximum slope of the application area (percent): N/A

Irrigation efficiency (percent): N/A

Effluent conductivity (mmhos/cm): N/A

Soil conductivity (mmhos/cm): N/A

Curve number: N/A

Describe the application method and equipment: N/A

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** N/A

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: N/A gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** N/A

Item 4. Evapotranspiration Beds (Instructions, Page 74)

- a. Provide the following information on the evapotranspiration beds:
- Number of beds: N/A
 - Area of bed(s) (acres): N/A
 - Depth of bed(s) (feet): N/A
 - Void ratio of soil in the beds: N/A
 - Storage volume within the beds (include units): N/A
 - Description of any lining to protect groundwater: N/A
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** N/A
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** N/A

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
- Area used for application (acres): N/A
 - Slopes for application area (percent): N/A
 - Design application rate (gpm/foot of slope width): N/A
 - Slope length (feet): N/A
 - Design BOD5 loading rate (lbs BOD5/acre/day): N/A
 - Design application frequency (hours/day): N/A
 - Design application frequency (days/week): N/A
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.2: SUBSURFACE IRRIGATION (NON-DRIP)

This worksheet **is required** for all applications for a permit to disposal of wastewater by subsurface land application.

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 75)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?
- Yes No
- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?
- Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Subsurface Application (Instructions, Page 75)

- a. Check the box next to the type of subsurface land disposal system requested:
- Conventional drainfield, beds, or trenches
- Low pressure dosing
- Other: [Click to enter text.](#)
- b. Provide the following information on the irrigation operations:
- Application area (acres): [Click to enter text.](#)
- Area of drainfield (square feet): [Click to enter text.](#)
- Application rate (gal/square ft/day): [Click to enter text.](#)
- Depth to groundwater (feet): [Click to enter text.](#)
- Area of trench (square feet): [Click to enter text.](#)
- Dosing duration per area (hours): [Click to enter text.](#)
- Number of beds: [Click to enter text.](#)
- Dosing amount per area (inches/day): [Click to enter text.](#)
- Soil infiltration rate (inches/hour): [Click to enter text.](#)
- Storage volume (gallons): [Click to enter text.](#)
- Area of bed(s) (square feet): [Click to enter text.](#)
- Soil classification: [Click to enter text.](#)
- c. Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

This worksheet **is required** for all applications for a permit to dispose of wastewater using a subsurface area drip dispersal system (SADDS).

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 76)

a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?

- Yes No

b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?

- Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Administrative Information (Instructions, Page 76)

a. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility: N/A

b. The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.

- Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located:

Click to enter text.

c. Provide the legal name of the owner of the SADDS: Click to enter text.

d. The owner of the SADDS is the same as the owner of the WWTF or the site where the WWTF is/will be located.

- Yes No

If **no**, identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c: Click to enter text.

e. Provide the legal name of the owner of the land where the SADDS is located: Click to enter text.

f. The owner of the land where the SADDs is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDs.

Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e: [Click to enter text.](#)

Item 3. SADDs (Instructions, Page 77)

a. Check the box next to the type SADDs requested by this application:

Subsurface drip/trickle irrigation

Surface drip irrigation

Other: [Click to enter text.](#)

b. Attach a description of the SADDs proposed/used by the facility (see instructions for guidance). **Attachment:** [Click to enter text.](#)

c. Provide the following information on the SADDs:

Application area (acres): [Click to enter text.](#)

Soil infiltration rate (inches/hour): [Click to enter text.](#)

Average slope of the application area: [Click to enter text.](#)

Maximum slope of the application area: [Click to enter text.](#)

Storage volume (gallons): [Click to enter text.](#)

Major soil series: [Click to enter text.](#)

Depth to groundwater (feet): [Click to enter text.](#)

Effluent conductivity (mmhos/cm): [Click to enter text.](#)

d. The facility is/will be located west of the boundary shown in *30 TAC § 222.83* **and** using a vegetative cover of non-native grasses over seeded with cool-season grasses.

Yes No

If **yes**, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft²/day.

e. The facility is/will be located east of the boundary shown in *30 TAC § 222.83* **or** is the facility proposing any crop other than non-native grasses.

Yes No

If **yes**, the facility must use the formula in *30 TAC § 222.83* to calculate the maximum hydraulic application rate.

f. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

Yes No

If **yes**, provide the following information on the hydraulic application rates:

- Hydraulic application rate (gal/square foot/day): [Click to enter text.](#)
- Nitrogen application rate (gal/square foot/day): [Click to enter text.](#)

g. Provide the following dosing information:

Number of doses per day: [Click to enter text.](#)

Dosing duration per area (hours): [Click to enter text.](#)

Rest period between doses (hours): [Click to enter text.](#)

Dosing amount per area (inches/day): [Click to enter text.](#)

Number of zones: [Click to enter text.](#)

h. The system is/will be a surface drip irrigation system using existing native vegetation as a crop?

Yes No

If **yes**, attach the following information:

- A vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species.

Attachment: [Click to enter text.](#)

- Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

Attachment: [Click to enter text.](#)

Item 4. Required Plans (Instructions, Page 78)

a. Attach a Soil Evaluation with all information required in *30 TAC § 222.73*.

Attachment: [Click to enter text.](#)

b. Attach a Site Preparation Plan with all information required in *30 TAC § 222.75*.

Attachment: [Click to enter text.](#)

c. Attach a Recharge Feature Plan with all information required in *30 TAC § 222.79*.

Attachment: [Click to enter text.](#)

d. Provide soil sampling and testing with all information required in *30 TAC § 222.157*.

Attachment: [Click to enter text.](#)

Item 5. Flood and Run-On Protection (Instructions, Page 79)

a. Is the existing/proposed SADDs located within the 100-year frequency flood level?

Yes No

Source: [Click to enter text.](#)

If **yes**, describe how the site will be protected from inundation: [Click to enter text.](#)

b. Is the existing/proposed SADDs within a designated floodway?

- Yes No

If **yes**, attach either the FEMA flood map or alternate information used to make this determination. **Attachment:** [Click to enter text.](#)

Item 6. Surface Waters in The State (Instructions, Page 79)

a. Attach a buffer map which shows the appropriate buffers on surface waters in the state, water wells, and springs/seeps. **Attachment:** [Click to enter text.](#)

b. The facility has or plans to request a buffer variance from water wells or waters in the state?

- Yes No

If **yes**, attach the additional information required in *30 TAC § 222.81(c)*. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is **required** for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

Yes No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: [Click to enter text.](#)
2. The distance and direction from the outfall to the drinking water supply intake: [Click to enter text.](#)

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

Check this box to confirm the above requested information is provided.

Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: [Click to enter text.](#)

- c. Are there sea grasses within the vicinity of the point of discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: [Click to enter text.](#)

Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

Yes No

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

- a. Name of the immediate receiving waters: Mudflats
- b. Check the appropriate description of the immediate receiving waters:
- Lake or Pond
 - Surface area (acres): Click to enter text.
 - Average depth of the entire water body (feet): Click to enter text.
 - Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.
 - Man-Made Channel or Ditch
 - Stream or Creek
 - Freshwater Swamp or Marsh
 - Tidal Stream, Bayou, or Marsh
 - Open Bay
 - Other, specify:

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c - 4.g below:

- c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- Intermittent (dry for at least one week during most years)
- Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- USGS flow records
- personal observation
- historical observation by adjacent landowner(s)
- other, specify: Click to enter text.

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Rio Grande River
- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).
- Yes
 - No

If **yes**, describe how: [Click to enter text.](#)

f. General observations of the water body during normal dry weather conditions: [dry mudflats](#)

Date and time of observation: [year round](#)

g. The water body was influenced by stormwater runoff during observations.

Yes No

If **yes**, describe how: [Click to enter text.](#)

Item 5. General Characteristics of Water Body (Instructions, Page 81)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> oil field activities | <input checked="" type="checkbox"/> urban runoff |
| <input checked="" type="checkbox"/> agricultural runoff | <input type="checkbox"/> septic tanks |
| <input checked="" type="checkbox"/> upstream discharges | <input type="checkbox"/> other, specify: Click to enter text. |

b. Uses of water body observed or evidence of such uses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> livestock watering | <input type="checkbox"/> industrial water supply |
| <input checked="" type="checkbox"/> non-contact recreation | <input type="checkbox"/> irrigation withdrawal |
| <input type="checkbox"/> domestic water supply | <input type="checkbox"/> navigation |
| <input type="checkbox"/> contact recreation | <input type="checkbox"/> picnic/park activities |
| <input type="checkbox"/> fishing | <input type="checkbox"/> other, specify: Click to enter text. |

c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

- Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional
- Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored
- Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid
- Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS

The following information **is required** for new applications, EPA-designated Major facilities, and major amendment applications requesting to add an outfall if the receiving waters are perennial or intermittent with perennial pools (including impoundments) for a TDPEs permit.

Complete the transects downstream of the existing or proposed discharges.

Item 1. Data Collection (Instructions, Page 82)

- a. Date of study: N/A Time of study: Click to enter text.
 Waterbody name: Click to enter text.
 General location: Click to enter text.

- b. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):
 perennial intermittent with perennial pools impoundment

- c. No. of defined stream bends:
 Well: Click to enter text. Moderately: Click to enter text. Poorly: Click to enter text.

- d. No. of riffles: Click to enter text.

- e. Evidence of flow fluctuations (check one):
 Minor Moderate Severe

- f. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: Click to enter text.

- g. Complete the following table with information regarding the transect measurements.

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**										
N/A													

* riffle, run, glide, or pool
 ** channel bed to water surface

Item 2. Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): N/A

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): N/A

Length of stream evaluated (ft): N/A

Number of lateral transects made: N/A

Average stream width (ft): N/A

Average stream depth (ft): N/A

Average stream velocity (ft/sec): N/A

Instantaneous stream flow (ft³/sec): N/A

Indicate flow measurement method (VERY IMPORTANT - type of meter, floating chip timed over a fixed distance, etc.): N/A

Flow fluctuations (i.e., minor, moderate, or severe): N/A

Size of pools (i.e., large, small, moderate, or none): N/A

Maximum pool depth (ft): N/A

Total number of stream bends: N/A

 Number well defined: N/A

 Number moderately defined: N/A

 Number poorly defined: N/A

Total number of riffles: N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

a. Is this a new permit application or an amendment permit application?

- Yes No

b. Does or will the facility discharge in the Lake Houston watershed?

- Yes No

If **yes** to either Item 1.a or 1.b, attach a solids management plan. **Attachment:** N/A

Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

- Permitted landfill
- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Registered land application site, attach Form TCEQ-00565
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Transported to another WWTP
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

Attachment: [Click to enter text.](#)

b. Provide the following information for each disposal site:

Disposal site name: Starbase WWTP/Space Exploration Technologies (sludge hauler)

TCEQ Permit/Registration Number: 2#0000327/Sludge Id No. 26143

County where disposal site is located: Hidalgo

c. Method of sewage sludge transportation:

truck train pipe other: [Click to enter text.](#)

TCEQ Hauler Registration Number: 26143

d. Sludge is transported as a:

liquid semi-liquid semi-solid solid

e. Purpose of land application: reclamation soil conditioning N/A

f. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

Attachment: [Click to enter text.](#)

Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

Attachment: N/A

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit.** New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following information is **required** for all applications for publicly-owned treatment works (POTWs).

For an explanation of the terms used in this worksheet, refer to the General Definitions on pages 4-12 and the Definitions Relating to Pretreatment on pages 13-14 of the Instructions.

Item 1. All POTWs (Instructions, Page 86)

- a. Complete the following table with the number of each type of industrial users (IUs) that discharge to the POTW and the daily average flows from each.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)
CIU	N/A	
SIU - Non-categorical		
Other IU		

- b. In the past three years, has the POTW experienced treatment plant interference?

Yes No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference: [Click to enter text.](#)

- c. In the past three years, has the POTW experienced pass-through?

Yes No

If **yes**, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass-through event. Include the names of the IU(s) that may have caused the pass-through: [Click to enter text.](#)

- d. Does the POTW have, or is it required to develop, an approved pretreatment program?

Yes No

If **yes**, answer all questions in Item 2 and skip Item 3.

If **no**, skip Item 2 and answer all questions in Item 3 for each SIU and CIU.

Item 2. POTWs With Approved Pretreatment Programs or Those Required To Develop A Pretreatment Program (Instructions, Page 86)

- a. Have there been any substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ) for approval according to *40 CFR § 403.18*?

Yes No

If **yes**, include an attachment which identifies all substantial modifications that have not been submitted to the TCEQ and the purpose of the modifications.

Attachment: [Click to enter text.](#)

- b. Have there been any non-substantial modifications to the POTW’s approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

Yes No

If **yes**, include an attachment which identifies all non-substantial modifications that have not been submitted to the TCEQ and the purpose of the modification.

Attachment: [Click to enter text.](#)

- c. List all parameters measured above the MAL in the POTW’s effluent monitoring during the last three years:

Effluent Parameters Measured Above the MAL

Pollutant	Concentration	MAL	Units	Date

Attachment: [Click to enter text.](#)

- d. Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass-through) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems: [Click to enter text.](#)

Item 3. Significant Industrial User and Categorical Industrial User Information (Instructions, Pages 88-87)

POTWs that **do not** have an approved pretreatment program **are required** to provide the following information for each SIU and CIU:

- a. Mr. or Ms.: [Click to enter text.](#) First/Last Name: [Click to enter text.](#)

Organization Name: [Click to enter text.](#) SIC Code: [Click to enter text.](#)

Phone number: [Click to enter text.](#) Email address: [Click to enter text.](#)

Physical Address: [Click to enter text.](#) City/State/ZIP Code: [Click to enter text.](#)

Attachment: [Click to enter text.](#)

- b. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (e.g., process and non-process wastewater): [Click to enter text.](#)

c. Provide a description of the principal products(s) or service(s) performed: [Click to enter text.](#)

d. Flow rate information

Flow Rate Information

Effluent Type	Discharge Day (gallons per day)	Discharge Frequency (Continuous, batch, or intermittent)
Process Wastewater		
Non-process Wastewater		

e. Pretreatment Standards

1. Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

Yes No

2. Is the SIU subject to categorical pretreatment standards?

Yes No

If **yes**, provide the category and subcategory or subcategories in the SIUs Subject To Categorical Pretreatment Standards table.

SIUs Subject to Categorical Pretreatment Standards

Category in 40 CFR	Subcategory in 40 CFR			

f. Has the SIU or CIU caused or contributed to any problem(s) (e.g., interferences, pass through, odors, corrosion, blockages) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

Yes No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
004	<input checked="" type="checkbox"/> Current	<input checked="" type="checkbox"/> Proposed
012	<input checked="" type="checkbox"/> Current	<input checked="" type="checkbox"/> Proposed
	<input type="checkbox"/>	<input type="checkbox"/>

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, **proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility’s boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

Check the box to confirm all above information was provided on the facility site map(s).

Attachment: [E Site Map](#)

Item 4. Facility/Site Information (Instructions, Page 90)

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
001	7,500 sq ft	7,500 sq ft
002	7,500 sq ft	7,500 sq ft

b. Provide the following local area rainfall information and the source of the information.

Wettest month: September

Average rainfall for wettest month (total inches): 7 inches

25-year, 24-hour rainfall (inches): 9.04

Source: NOAA

c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** F Materials List

d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** F Materials List

e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: Velocity and sediment controls

Item 5. Pollutant Analysis (Instructions, Page 91)

a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 11/01/2023-12/31/2023

b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.

c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: 001

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	NA	—	(min)	—		—
Total suspended solids	NA					—
Chemical oxygen demand	NA					—
Total organic carbon	NA					—
Oil and grease	NA					—
Arsenic, total	0.0107					0.0005
Barium, total	0.102					0.003
Cadmium, total	0.00241					0.001
Chromium, total	0.0613					0.003
Chromium, trivalent	NA					—
Chromium, hexavalent	NA					0.003
Copper, total	0.0101					0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total	0.00308					0.0005
Mercury, total	<0.113					0.000005
Nickel, total	0.00599					0.002
Selenium, total	0.00298					0.005
Silver, total	<0.0000628					0.0005
Zinc, total	0.0574					0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

Attachment: Click to enter text.

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: 12/14/2023

Duration of storm event (minutes): approximately 1 hr

Total rainfall during storm event (inches): 0.04 in

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): >72 hrs

Maximum flow rate during rain event (gallons/minute): Variable

Total stormwater flow from rain event (gallons): Variable

Provide a description of the method of flow measurement or estimate:

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 8.0: AQUACULTURE

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges of aquaculture wastewater.

Item 1. Facility/Site Information (Instructions, Page 94)

- a. Complete the following table with information regarding production ponds, raceways, and fabricated tanks at the facility.

Production Pond Descriptions

Number of Ponds	Dimensions (include units)	Area of Each Pond (include units)	Number of Ponds x Area of Ponds (include Units)
N/A			

Total surface area of all ponds: [Click to enter text.](#)

Raceway Descriptions

Number of Raceways	Dimensions (include units)

Fabricated Tank Descriptions

Number of Tanks	Dimensions (include units)

b. Does the facility have a TPWD-approved emergency plan?

- Yes No

If **yes**, attach a copy of the approved plan.

Attachment: [Click to enter text.](#)

c. Does the facility have an aquatic plant transplant authorization?

- Yes No

If **yes**, attach a copy of the authorization letter.

Attachment: [Click to enter text.](#)

d. Provide the number of aquaculture facilities located within 25-miles of this facility: [Click to enter text.](#)

Item 2. Species Identification (Instructions, Page 95)

Complete the following table regarding each species raised, source, origin, and disease status of the stock. Identify and attach copies of any current relevant authorizations or permits that authorize the species.

Stock Species Information

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

Attachment: [Click to enter text.](#)

Item 3. Stock Management Plan (Instructions, Page 95)

Attach a detailed stock management plan: [Click to enter text.](#)

Item 4. Water Treatment and Discharge Description (Instructions, Page 96)

Attach a detailed description of the discharge practices and water treatment process(es): [Click to enter text.](#)

Item 5. Solid Waste Management (Instructions, Page 96)

Attach a description of the solid waste-disposal practices: [Click to enter text.](#)

Item 6. Site Assessment Report (Instructions, Page 96)

All new and expanding commercial shrimp facilities located/to be located within the coastal zone must attach a detailed site assessment report which identifies sensitive aquatic habitats within the coastal zone: [Click to enter text.](#)

WORKSHEET 9.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only

Reg. No. _____

Date Received _____

Date Authorized _____

Item 1. General Information (Instructions Page 99)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): [Click to enter text.](#)

Program ID: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

2. Agent/Consultant Contact Information

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

3. Owner/Operator Contact Information

Owner Operator

Owner/Operator Name: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

4. Facility Contact Information

Facility Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Location description (if no address is available): [Click to enter text.](#)

Facility Contact Person: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

5. Latitude and Longitude, in degrees-minutes-seconds

Latitude: [Click to enter text.](#)

Longitude: [Click to enter text.](#)

Method of determination (GPS, TOPO, etc.): [Click to enter text.](#)

Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- Vertical Injection
- Subsurface Fluid Distribution System
- Infiltration Gallery
- Temporary Injection Points
- Other, Specify: [Click to enter text.](#)

Number of Injection Wells: [Click to enter text.](#)

7. Purpose

Detailed Description regarding purpose of Injection System:

[Click to enter text.](#)

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

License Number: [Click to enter text.](#)

Item 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Center	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Item 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: [Click to enter text.](#)

System(s) Construction: [Click to enter text.](#)

Item 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: [Click to enter text.](#)

2. Receiving Formation Name of Injection Zone: [Click to enter text.](#)

3. Well/Trench Total Depth: [Click to enter text.](#)

4. Surface Elevation: [Click to enter text.](#)

5. Depth to Ground Water: [Click to enter text.](#)

6. Injection Zone Depth: [Click to enter text.](#)

7. Injection Zone vertically isolated geologically? Yes No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: [Click to enter text.](#)

Thickness: [Click to enter text.](#)

8. Attach a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.

9. Attach the Horizontal and Vertical extent of contamination and injection plume as Attachment F.

10. Attach Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc., as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection. Attach as Attachment H.

12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: [Click to enter text.](#)

13. Maximum injection Rate/Volume/Pressure: [Click to enter text.](#)

14. Water wells within 1/4 mile radius (attach map as Attachment I): [Click to enter text.](#)

15. Injection wells within 1/4 mile radius (attach map as Attachment J): [Click to enter text.](#)

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): [Click to enter text.](#)

17. Sampling frequency: [Click to enter text.](#)

18. Known hazardous components in injection fluid: [Click to enter text.](#)

Item 5. Site History

1. Type of Facility: [Click to enter text.](#)
2. Contamination Dates: [Click to enter text.](#)
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations. Attach as Attachment L.
4. Previous Remediation. Attach results of any previous remediation as Attachment M.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Item 6. CLASS V INJECTION WELL DESIGNATIONS

- 5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Stormwater Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTPP disposal
- 5W20 Industrial Process Waste-disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X27 Other Wells
- 5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

This worksheet **is required** for all applications for individual permits for a municipal solid waste facility or mining facility located within a Water Quality Protection Area in the John Graves Scenic Riverway. **Note: Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.**

Item 1. Exclusions (Instructions, Page 100)

- a. Is this a municipal solid waste facility?
 Yes No
- b. Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?
 Yes No
- c. Is this a coal mine?
 Yes No
- d. Is this facility mining clay and/or shale for use in manufacturing structural clay products?
 Yes No

If **yes** to **any** above question, **stop here**. The facility is required to maintain documentation, as outlined in *30 TAC § 311.72(c)*, at the facility to demonstrate the exclusion(s).

Item 2. Location of the Quarry (Instructions, Page 101)

Check the box next to the distance between the quarry and the nearest navigable water body:

- < 200 feet 200 feet - 1,500 feet 1,500 feet - 1 mile > 1 mile

NOTE: The construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a Water Quality Protection Area in the John Graves Scenic Riverway.

Item 3. Additional Requirements (Instructions, Page 101)

Use the table in the Instructions to determine if additional application requirements apply to the facility based on distance between the quarry and the nearest waterway. Attach as appropriate or enter N/A.

- a. Attach a Restoration Plan: [Click to enter text.](#)
- b. Amount of Financial Assurance for Restoration: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)
- c. Attach a Technical Demonstration: [Click to enter text.](#)
- d. Attach a Reclamation Plan: [Click to enter text.](#)
- e. Amount of Financial Assurance for Reclamation: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.0: COOLING WATER SYSTEM INFORMATION

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12.

Item 1. Cooling Water System Data (Instructions, Page 104)

a. Complete the following table with information regarding the cooling water system.

Cooling Water System Data

Parameter	Volume (include units)
Total DIF	
Total AIF	
Intake Flow Use(s) (%)	
Contact cooling	
Non-contact cooling	
Process Wastewater	
Other	

b. Attach the following information:

1. A narrative description of the design and annual operation of the facility's cooling water system and its relationship to the CWIS(s).
2. A scaled map depicting the location of each CWIS, impoundment, intake pipe, and canals, pipes, or waterways used to convey cooling water to, or within, the cooling water system. Provide the latitude and longitude for each CWIS and any intake pipe(s) on the map. Indicate the position of the intake pipe within the water column.
3. A description of water reuse activities, if applicable, reductions in total water withdrawals, if applicable, and the proportion of the source waterbody withdrawn (on a monthly basis).
4. Design and engineering calculations prepared by a qualified professional and data to support the information provided in above item a.
5. Previous year (a minimum of 12 months) of AIF data.
6. A narrative description of existing or proposed impingement and entrainment technologies or operation measures and a summary of their performance, including, but not limited to, reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

Attachment: [Click to enter text.](#)

Item 2. Cooling Water Intake Structure(s) Data (Instructions, Page 105)

- a. Complete the following table with information regarding each cooling water intake structure (this includes primary and make-up CWIS(s)).

Cooling Water Intake Structure(s) Data

CWIS ID				
DIF (include units)				
AIF (include units)				
Intake Flow Use(s) (%)				
Contact cooling				
Non-contact cooling				
Process Wastewater				
Other				
Latitude (decimal degrees)				
Longitude (decimal degrees)				

- b. Attach the following information regarding the CWIS(s):
1. A narrative description of the configuration of each CWIS, annual and daily operation, including any seasonal changes, and where it is located in the water body and in the water column.
 2. Engineering calculations for each CWIS.

Attachment: [Click to enter text.](#)

Item 3. Source Water Physical Data (Instructions, Page 105)

- a. Complete the following table with information regarding the CWIS(s) source waterbody (this includes primary and make-up CWIS(s)).

Source Waterbody Data

CWIS ID				
Source Waterbody				
Mean Annual Flow				
Source				

- b. Attach the following information regarding the source waterbody.
1. A narrative description of the source water for each CWIS, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports this determination of the water body type where each cooling water intake structure is located.

2. A narrative description of the source waterbody's hydrological and geomorphological features.
3. Scaled drawings showing the physical configuration of all source water bodies used by the facility, including the source waterbody's hydrological and geomorphological features. **NOTE:** The source waterbody's hydrological and geomorphological features may be included on the map submitted for item 1.b.ii of this worksheet.
4. A description of the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies.

Attachment: [Click to enter text.](#)

Item 4. Operational Status (Instructions, Page 106)

a. Is this application for a power production or steam generation facility?

- Yes No

If **no**, proceed to Item 4.b. If **yes**, provide the following information as an attachment:

1. Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation.
2. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment.
3. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months).
4. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type.

Attachment: [Click to enter text.](#)

b. Process Units

1. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)?

- Yes No

If **no**, proceed to Item 4.c. If **yes**, continue.

2. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of *40 CFR § 125.94(c)*?

- Yes No

If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information:

- Individual production processes and product lines
- The operating status, including age of each line and seasonal operation
- Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors

- Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines.

Attachment: [Click to enter text.](#)

c. Is this an application for a nuclear power production facility?

Yes No

If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility.

Attachment: [Click to enter text.](#)

d. Is this an application for a manufacturing facility?

Yes No

If **no**, proceed to Worksheet 11.1. If **yes**, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.1: IMPINGEMENT MORTALITY

This worksheet is **required** for all TPDES permit applications that meet the conditions outlined in **Technical Report 1.0, Item 12**. Complete one copy of this worksheet for each individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Impingement Compliance Technology Selection (Instructions, Page 107)

Check the box next to the method of compliance for the Impingement Mortality Standard selected by the facility.

- Closed-cycle recirculating system(CCRS) [40 CFR § 125.94(c)(1)]
- 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] - Proceed to Worksheet 11.2
- 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]
- Existing offshore velocity cap [40 CFR § 125.94(c)(4)] - Proceed to Worksheet 11.2
- Modified traveling screens [40 CFR § 125.94(c)(5)]
- System of technologies [40 CFR § 125.94(c)(6)]
- Impingement mortality performance standard [40 CFR § 125.94(c)(7)]
- De minimis rate of impingement [40 CFR § 125.94(c)(11)]
- Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

If 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] or existing offshore velocity cap [40 CFR § 125.94(c)(4)] was selected, proceed to Worksheet 11.2. Otherwise, continue to Item 2.

Item 2. Impingement Compliance Technology Information (Instructions, Page 107)

Complete the following sections based on the selection made for item 1 above.

a. CCRS [40 CFR § 125.94(c)(1)]

- Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.

1. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

- Yes No

If **no**, proceed to item a.2. If **yes**, provide the following information as an attachment and continue.

- CWIS ID
- 12 months of intake flow data for any CWIS used for make-up intake flows to replenish cooling water losses, excluding intakes for losses due to blowdown, drift, or evaporation.

- A narrative description of any physical or operational measures taken to minimize make-up withdraws.

Attachment: [Click to enter text.](#)

NOTE: Do not complete a separate Worksheet 11.1 for a make-up CWIS.

2. Does the facility use or propose to use cooling towers?

- Yes No

If **no**, proceed to Worksheet 11.2. If **yes**, provide the following information and proceed to Worksheet 11.2.

- Average number of cycles of concentration (COCs) prior to blowdown:

Average COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Attach COC monitoring data for each cooling tower from the previous year (a minimum of 12 months): [Click to enter text.](#)
- Maximum number of COCs each cooling tower can accomplish based on design of the system.

Calculated COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Describe conditions that may limit the number of COCs prior to blowdown, if any, including but not limited to permit conditions: [Click to enter text.](#)

b. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

Provide daily intake flow measurement monitoring data from the previous year (a minimum of 12 months) as an attachment and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

c. Modified traveling screens [40 CFR § 125.94(c)(5)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the modified traveling screens and associated equipment.
2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

d. System of technologies [40 CFR § 125.94(c)(6)] or impingement mortality performance standard [40 CFR § 125.94(c)(7)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the system of technologies used or proposed for use by the facility to

achieve compliance with the impingement mortality standard.

2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods.
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

- e. De minimis rate of impingement [*40 CFR § 125.94(c)(11)*]

Provide the following information and proceed to Worksheet 11.2.

1. Attach monitoring data from the previous year (a minimum of 12 months) of intake flow measured at a frequency of 1/day on days of operation.

Attachment: [Click to enter text.](#)

2. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.6. to support this determination.

Attachment: [Click to enter text.](#)

- f. Low capacity utilization power-generation facilities [*40 CFR § 125.94(c)(12)*]

Attach monthly utilization data from the previous 2 years (a minimum of 24 months) for each operating unit and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.2: SOURCE WATER BIOLOGICAL DATA

This worksheet **is required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** source waterbody of a CWIS for which a facility has selected an Impingement Mortality Technology Option described at *40 CFR §§ 125.94(c)(1)-(7)*.

Name of source waterbody: [Click to enter text.](#)

Item 1. Species Management (Instructions, Page 109)

- a. The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.

Yes No

If yes, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph *40 CFR § 125.95(f)*.

Attachment: [Click to enter text.](#)

- b. Is the facility requesting a waiver from application requirements at *40 CFR § 122.21(r)(4)* in accordance with *40 CFR § 125.95* for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?

Yes No

If **yes**, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.

Attachment: [Click to enter text.](#)

- c. There are no federally listed threatened or endangered species or critical habitat designations within the source water body.

True False

Item 2. Source Water Biological Data (Instructions, Page 109)

New Facilities (Phase I, Track I and II)

- Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

- If the answer to **1.b.** above was **no**, provide responses to all items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **true**, do not complete any items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **false**, attach a response for any item in this section that is not contained within the most recent TPWD, or equivalent and proceed to Worksheet 11.3.

Attachment: [Click to enter text.](#)

- a. A list of the data requested at *40 CFR § 122.21(r)(4)(ii)* through *(vi)* that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at *40 CFR § 125.92(m)*, at the facility. The applicant need only identify those species not already identified as fragile at *40 CFR § 125.92(m)*.

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.3: ENTRAINMENT

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Applicability (Instructions, Page 111)

Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?

Yes No

- If **no** or the facility has selected **CCRS** [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here.
- If **yes** and the facility is **seeking a waiver** from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop.
- If **yes** and the facility is **not seeking a waiver** from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.

Item 2. Existing Entrainment Performance Studies (Instructions, Page 111)

Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.

Attachment: [Click to enter text.](#)

Item 3. Facility Entrainment Performance Studies (Instructions, Page 111)

- a. Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): [Click to enter text.](#)
- b. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): [Click to enter text.](#)
- c. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): [Click to enter text.](#)
- d. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): [Click to enter text.](#)
- e. Attach a peer review analysis, as described as 40 CFR § 122.21(r)(13): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 12.0: OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES

This worksheet **is required** for all TPDES permit applications that are subject to Effluent Limitation Guidelines in 40 CFR Part 435.

Item 1. Operational Information (Instructions, Page 112)

- a. Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?

Yes No

If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.

- b. Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.

Click to enter text.

Item 2. Production/Process Data (Instructions, Page 112)

- a. Provide the applicable 40 CFR Part 435 Subpart(s).

Click to enter text.

- b. Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

Click to enter text.

c. Provide information on all waste-streams generated and specify which waste-streams you are requesting to be authorized for discharge.

Wastestreams Generated

Wastestream	Requesting authorization to discharge? (Yes/No)	Volume (MGD)	% of Total Flow

d. Describe how the facility will manage wastestreams for which discharge authorization is not being sought.

[Click to enter text.](#)

Attachment: [Click to enter text.](#)

e. Provide information on miscellaneous discharges.

[Click to enter text.](#)

Attachment: [Click to enter text.](#)

- f. List of chemicals that are in use, or will be used, downhole. Provide the category, concentration used/to be used, and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

Attachment: [Click to enter text.](#)

- g. List of chemicals that are in use, or will be used, to treat the wastewater to be discharged under this authorization. Provide the concentration used/to be used and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Water Treatment Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

Attachment: [Click to enter text.](#)

Item 3. Pollutant Analysis (Instructions, Page 113)

Tables 1, 2, 6, and 7 located in Worksheet 2.0 are required. In addition, Table 19 below is required and must be completed for each outfall and submitted with this application. The remaining tables in Worksheet 2.0, are required as applicable.

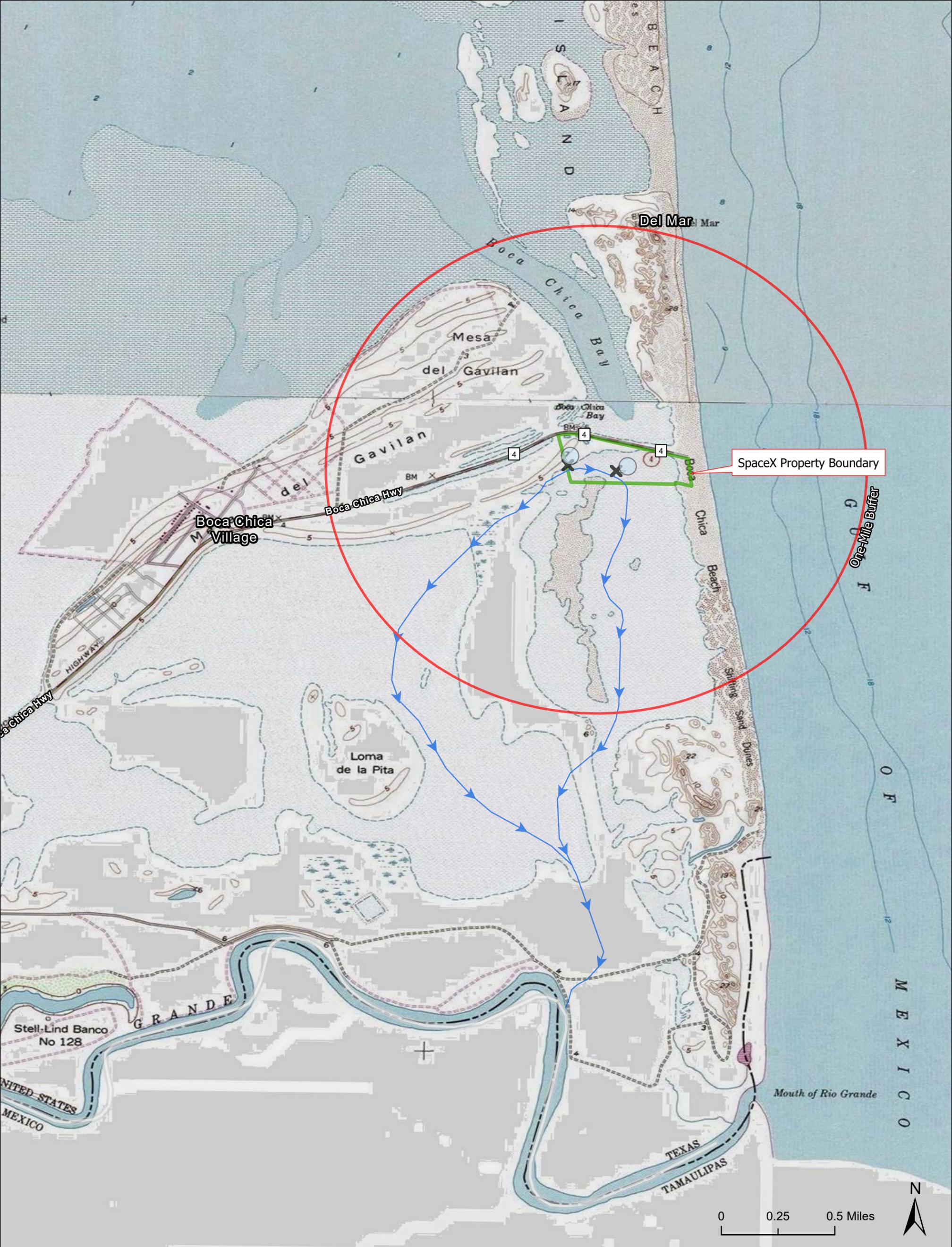
- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** [Click to enter text.](#)
- d. Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [Click to enter text.](#)

Table 19 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)*	Sample 2 (mg/L)*	Sample 3 (mg/L)*	Sample 4 (mg/L)*
Calcium				
Potassium				
Sodium				

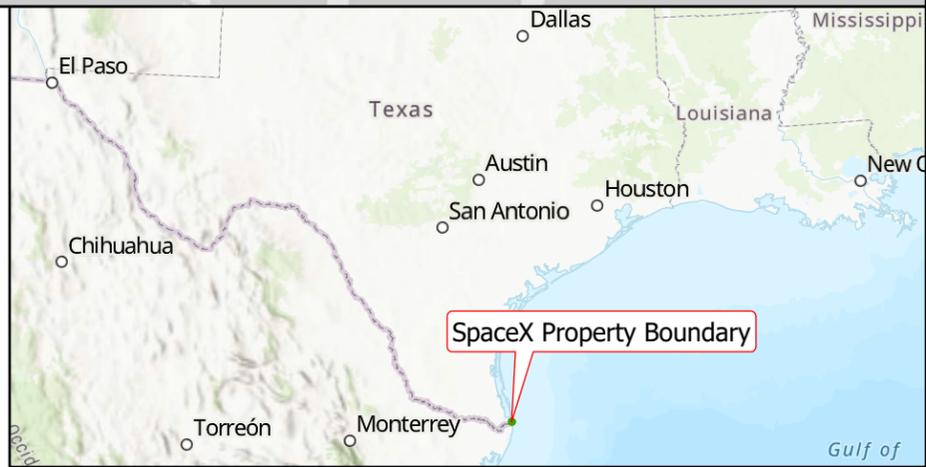
*Indicate units if different from mg/L.

Attachment D



SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow



Attachment E



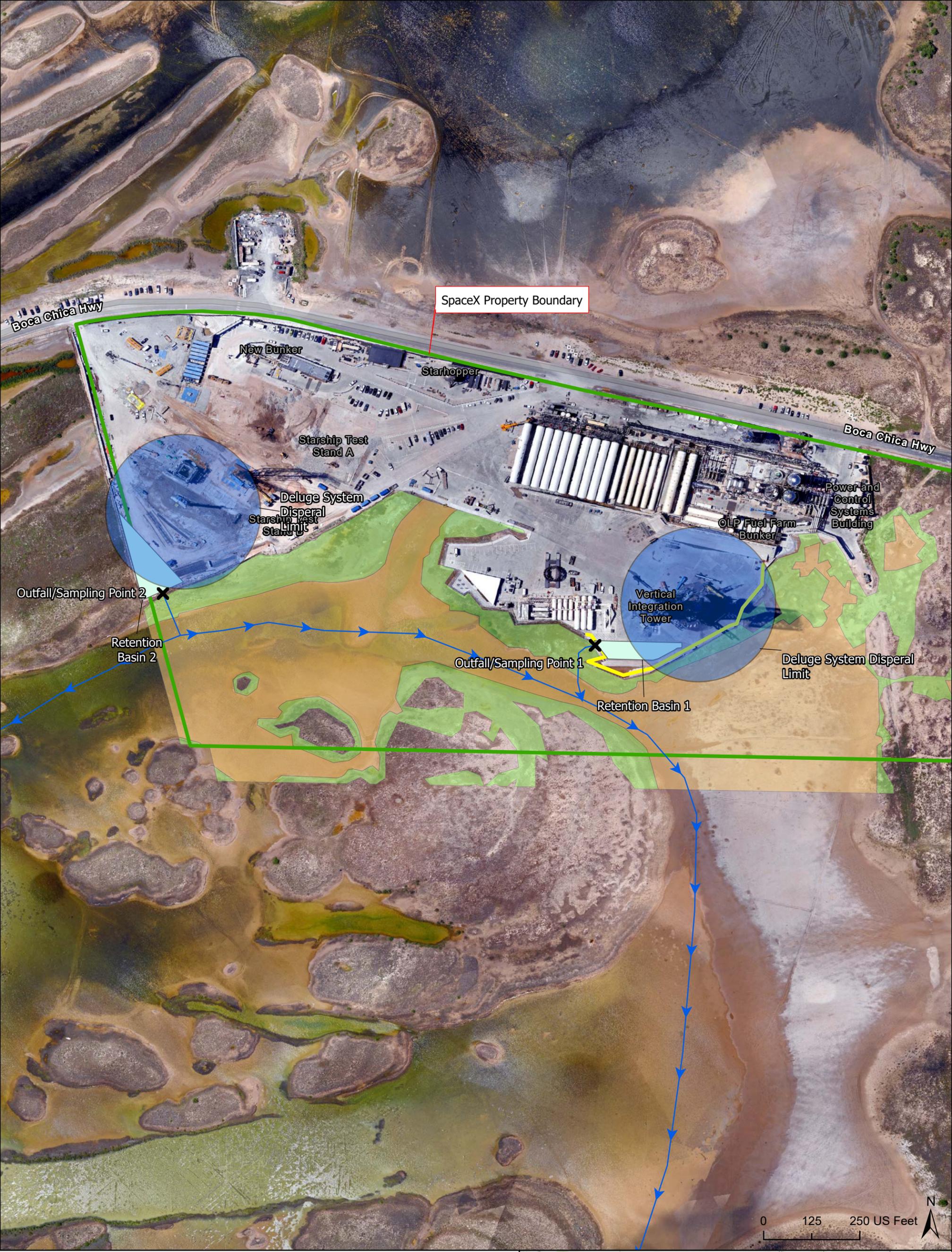
SPACEX Launch Pad TPDES Permit
Landowner Map

- | | |
|-----------------------------------|---------|
| SpaceX Property Boundary | Federal |
| One-Mile Buffer | SpaceX |
| Approximate Water Dispersal Limit | TPWD |
| Outfall & Sampling Point | Private |
| Downstream Flow Line | |
- 0 0.5 1 Miles



Attachment F

Attachment G



SPACEX Launch Pad TPDES Permit Site Map

- SpaceX Property Boundary
- Approximate Maximum Water Dispersal Limit
- Retention Basin
- Outfall & Sampling Point
- Downstream Flow
- Concrete Curbing
- Unvegetated Mud Flats
- High Marsh



Attachment H



SPACEX Launch Pad TPDES Permit Facility Map

- SpaceX Property Boundary
 - Retention Basin
 - Approximate Maximum Water Dispersal Limit
 - X Outfall & Sampling Point
 - Downstream Flow
 - Concrete Curbing
- 0 250 500 US Feet



Attachment I

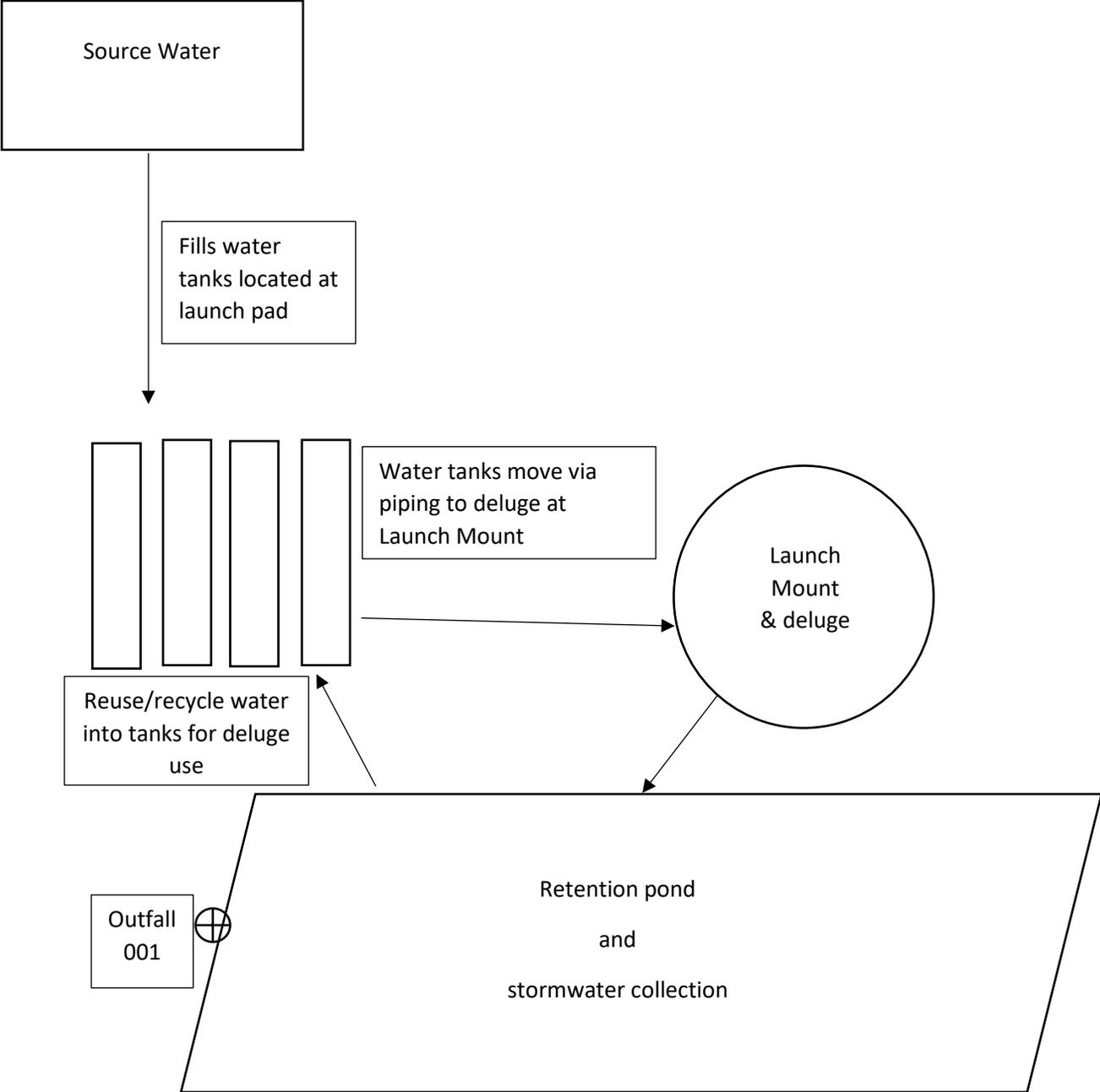


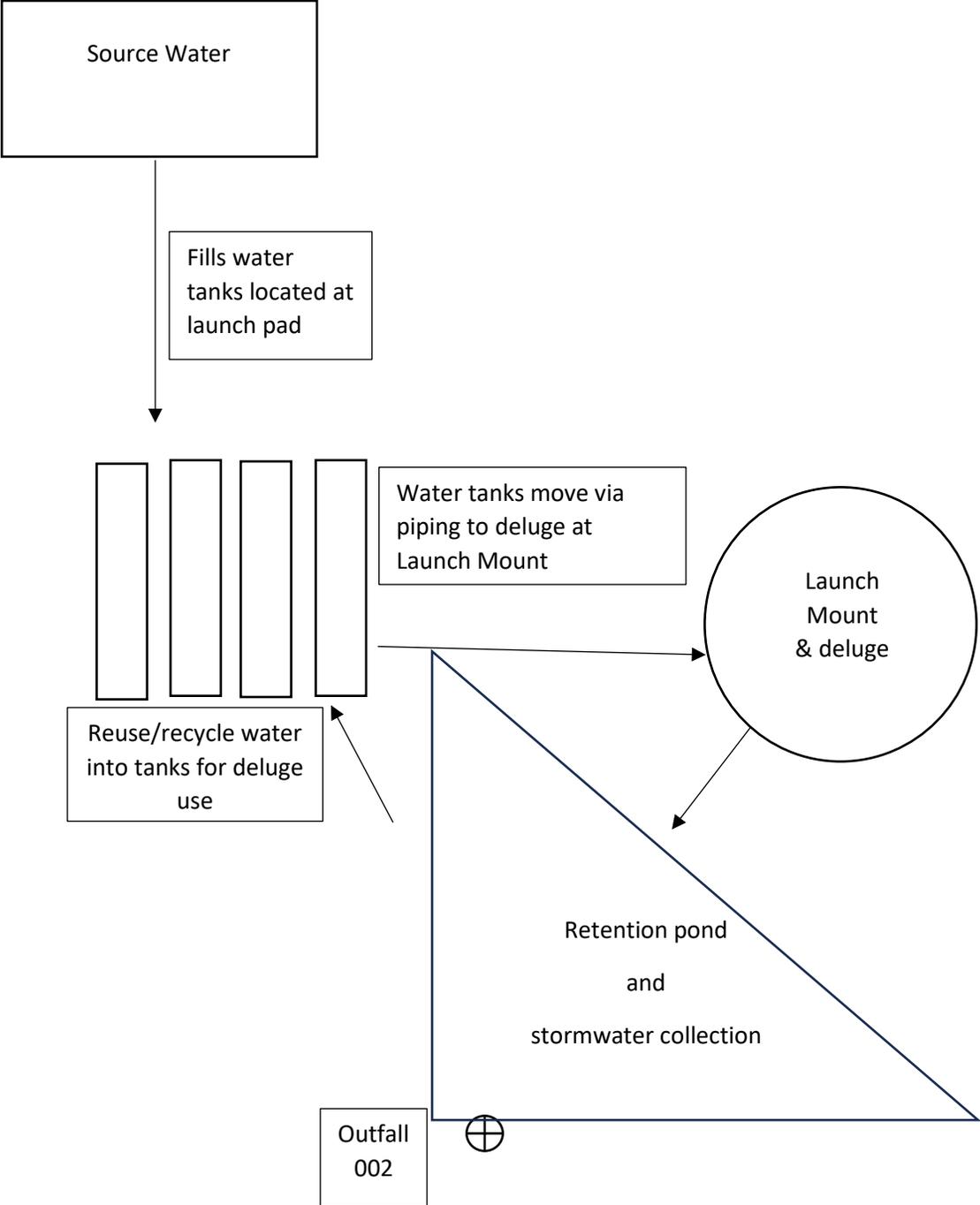
USDA, USGS The National Map: Orthoimagery. Data refreshed June, 2024.

Powered by Esri

<p>PIN</p> <ul style="list-style-type: none"> Approximate location based on user input and does not represent an authoritative property location <p>MAP PANELS</p> <ul style="list-style-type: none"> Selected FloodMap Boundary Digital Data Available No Digital Data Available Unmapped <p>OTHER AREAS</p> <ul style="list-style-type: none"> Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D Otherwise Protected Area Coastal Barrier Resource System Area 	<p>SPECIAL FLOOD HAZARD AREAS</p> <ul style="list-style-type: none"> Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Regulatory Floodway Zone AE, AO, AH, VE, AR 0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D <p>OTHER AREAS OF FLOOD HAZARD</p>	<p>OTHER FEATURES</p> <ul style="list-style-type: none"> Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature <p>GENERAL STRUCTURES</p> <ul style="list-style-type: none"> Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
--	--	---

Attachment J





Attachment K

Project
1105141

SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

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TABLE OF CONTENTS

Retention Pond

This report consists of this Table of Contents and the following pages:

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1105141_r02_01_ProjectSamples	SPL Kilgore Project P:1105141 C:SPAC Project Sample Cross Reference t:304	17
1105141_r03_03_ProjectResults	SPL Kilgore Project P:1105141 C:SPAC Project Results t:304 PO: 2605353	12
1105141_r10_05_ProjectQC	SPL Kilgore Project P:1105141 C:SPAC Project Quality Control Groups	32
1105141_r99_09_CoC__1_of_1	SPL Kilgore CoC SPAC 1105141_1_of_1	9
Total Pages:		70



SAMPLE CROSS REFERENCE

Project
1105141

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
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- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	35	1121972	06/03/2024	1122623	06/06/2024
EPA 300.0 2.1	01	1121871	05/31/2024	1121871	05/31/2024

Email: Kilgore.ProjectManagement@spllabs.com

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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1122502	06/05/2024	1122502	06/05/2024
EPA 625.1	34	1121954	06/03/2024	1124511	06/17/2024

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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	04	1121678	05/30/2024	1121678	05/30/2024
EPA 624.1	07	1121680	05/30/2024	1121680	05/30/2024

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- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
ASTM D7065-11	36	1122298	06/05/2024	1122871	06/06/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1122038	06/03/2024

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SAMPLE CROSS REFERENCE

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.7 4.4	30	1121672	05/31/2024	1123498	06/12/2024
EPA 245.1 3	31	1121865	06/03/2024	1121966	06/03/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1123699	06/12/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1123260	06/10/2024

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SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1122450	06/06/2024
SM 2320 B-2011	18	1122797	06/07/2024	1122797	06/07/2024

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SPACEX
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 Space Exploration Technologies
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5210 B-2016	01	1121636	06/05/2024	1121636	06/05/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1121637	06/05/2024	1121637	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016			06/04/2024		06/04/2024
SM 4500-CN ⁻ G-2016	29	1121666	05/31/2024	1122125	06/04/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ E-2016	23	1121649	05/31/2024	1122121	06/04/2024
SM 5220 D-2011	13	1121775	05/31/2024	1121775	05/31/2024

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SPACEX
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/06/2024		06/06/2024
SM 3500-Cr B-2011	19	1122575	06/05/2024	1122575	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 3500-Cr B-2011		1121254	05/29/2024	1121254	05/29/2024
EPA 1664B (HEM)	08	1122457	06/05/2024	1122457	06/05/2024

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SPACEX
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	20	1121581	05/30/2024	1122206	06/04/2024
EPA 351.2 minus EPA 350.1			06/05/2024		06/05/2024

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SPACEX
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 Space Exploration Technologies
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 C-2015	11	1122168	06/03/2024	1122168	06/03/2024
EPA 351.2.2	28	1121658	05/31/2024	1122132	06/04/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	15	1122326	06/05/2024	1122326	06/05/2024
SM 4500-P E-2011	13	1121996	06/03/2024	1121996	06/03/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 D-2015	11	1121687	05/30/2024	1121687	05/30/2024
SM 2130 B-2011	11	1123697	06/11/2024	1123697	06/11/2024

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SPACEX
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-H+ B-2011		1121148	05/28/2024	1121148	05/28/2024

Email: Kilgore.ProjectManagement@spllabs.com

SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1105141

Printed: 06/26/2024

Retention Pond

RESULTS

Sample Results

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water
 Collected by: Client
 Taken: 05/29/2024
 Client: SPACE X
 PO: 2605353
 18:30:00

Prepared: 06/19/2024 14:37:00 Analyzed 06/19/2024 14:37:00 WJP

Parameter	Results	Units	RL	Flags	CAS	Bottle
Check Limits	Completed					

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Nonylphenol	<33.6	ug/L	33.6		25154-52-3	36

Calculation Prepared: 06/06/2024 14:32:29 Calculated 06/06/2024 14:32:29 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Trivalent Chromium	<0.003	mg/L	0.003		16065-83-1	

Client Prepared: 1121027 05/28/2024 03:56:00 Analyzed 1121027 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cl2 Res(Total) Analyzed by client	0.20	mg/L				

EPA 1664B (HEM) Prepared: 1122457 06/05/2024 10:00:00 Analyzed 1122457 06/05/2024 10:00:00 MAX

Parameter	Results	Units	RL	Flags	CAS	Bottle
Oil and Grease (HEM)	3.60	mg/L	4.49	J		08

EPA 200.7 4.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123498 06/12/2024 10:21:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Calcium	83.3	mg/L	0.500		7440-70-2	30
Iron, Total	0.702	mg/L	0.007		7439-89-6	30



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122038 06/03/2024 12:30:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.0702	mg/L	0.00171		7429-90-5	30
NELAC Arsenic, Total	0.00188	mg/L	0.0005		7440-38-2	30
NELAC Barium, Total	0.0943	mg/L	0.001		7440-39-3	30
NELAC Beryllium, Total	<0.000139	mg/L	0.000139		7440-41-7	30
NELAC Cadmium, Total	0.000107	mg/L	0.001	J	7440-43-9	30
NELAC Chromium, Total	0.00155	mg/L	0.001		7440-47-3	30
NELAC Copper, Total	0.00949	mg/L	0.00155		7440-50-8	30
NELAC Lead, Total	<0.000244	mg/L	0.000244		7439-92-1	30
NELAC Nickel, Total	0.00626	mg/L	0.00112		7440-02-0	30
NELAC Silver, Total	<0.000226	mg/L	0.000226		7440-22-4	30
NELAC Thallium, Total	<0.000106	mg/L	0.000106		7440-28-0	30
NELAC Zinc, Total	1.42	mg/L	0.001		7440-66-6	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122450 06/06/2024 02:19:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Selenium, Total	0.00286	mg/L	0.002		7782-49-2	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123260 06/10/2024 21:41:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00189	mg/L	0.003	J	7440-36-0	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123699 06/12/2024 08:56:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Manganese, Total	0.059	mg/L	0.0005		7439-96-5	30

EPA 245.1 3 Prepared: 1121865 06/03/2024 10:30:00 Analyzed 1121966 06/03/2024 13:29:00 KB1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	<0.113	ug/L	0.113		7439-97-6	31

EPA 300.0 2.1 Prepared: 1121871 05/31/2024 13:17:00 Analyzed 1121871 05/31/2024 13:17:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	182	mg/L	3.00			01
NELAC Fluoride	0.970	mg/L	0.500	J		01



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 300.0 2.1		Prepared: 1121871 05/31/2024 13:17:00		Analyzed 1121871 05/31/2024 13:17:00		NAZ	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.100		14797-55-8	01	
EPA 300.0 2.1		Prepared: 1122502 06/05/2024 13:36:00		Analyzed 1122502 06/05/2024 13:36:00		NAZ	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Sulfate	282	mg/L	30.0			01	
EPA 350.1 2		Prepared: 1121581 05/30/2024 15:18:42		Analyzed 1122206 06/04/2024 07:02:00		AMB	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Ammonia Nitrogen	0.121	mg/L	0.020			20	
EPA 351.2 2		Prepared: 1121658 05/31/2024 08:22:52		Analyzed 1122132 06/04/2024 08:23:00		AMB	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Total Kjeldahl Nitrogen	0.064	mg/L	0.050		7727-37-9	28	
EPA 351.2 minus EPA 350.1		Prepared: 06/05/2024 08:55:57		Calculated 06/05/2024 08:55:57		CAL	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Nitrogen, Total Organic (as N)	<0.050	mg/L	0.050				
EPA 608.3		Prepared: 1121972 06/03/2024 14:30:00		Analyzed 1122623 06/06/2024 01:55:00		KAP	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC PCB-1016	<0.334	ug/L	0.334	X	12674-11-2	35	
NELAC PCB-1221	<0.331	ug/L	0.331		11104-28-2	35	
NELAC PCB-1232	<0.331	ug/L	0.331		11141-16-5	35	
NELAC PCB-1242	<0.331	ug/L	0.331		53469-21-9	35	
NELAC PCB-1248	<0.331	ug/L	0.331		12672-29-6	35	
NELAC PCB-1254	<0.331	ug/L	0.331		11097-69-1	35	
NELAC PCB-1260	<0.331	ug/L	0.331		11096-82-5	35	
NELAC PCB-1262	<0.331	ug/L	0.331		37324-23-5	35	
NELAC PCB-1268	<0.331	ug/L	0.331		11100-14-4	35	



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121678 05/30/2024 17:55:00 Analyzed 1121678 05/30/2024 17:55:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Acrolein	<4.00	ug/L	4.00	X	107-02-8	04
NELAC Acrylonitrile	<1.00	ug/L	1.00		107-13-1	04

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	07
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	07
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	07
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	07
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	07
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	07
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	07
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	07
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	07
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	07
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	07
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	07
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	07
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	07
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	07
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	07
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	07
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	07
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	07
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	07
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	07
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	07
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	07
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	07
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	07
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	07
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	07
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	07
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	07
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	07
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	07



SPAC-R

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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	07

EPA 624.1 Prepared: 1121680 05/31/2024 12:46:07 Calculated 1121680 05/31/2024 12:46:07 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			07

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2,4,5-Tetrachlorobenzene	<1.02	ug/L	1.02	X	95-94-3	34
NELAC 1,2,4-Trichlorobenzene	<0.988	ug/L	0.988		120-82-1	34
NELAC 1,2-Dichlorobenzene	<4.94	ug/L	4.94		95-50-1	34
NELAC 1,2-DPH (as azobenzene)	<0.988	ug/L	0.988		122-66-7	34
NELAC 1,3-Dichlorobenzene	<4.94	ug/L	4.94	X	541-73-1	34
NELAC 1,4-Dichlorobenzene	<4.94	ug/L	4.94	X	106-46-7	34
NELAC 2,4,5-Trichlorophenol	<4.94	ug/L	4.94		95-95-4	34
NELAC 2,4,6-Trichlorophenol	<1.98	ug/L	1.98		88-06-2	34
NELAC 2,4-Dichlorophenol	<0.988	ug/L	0.988		120-83-2	34
NELAC 2,4-Dimethylphenol	<0.988	ug/L	0.988	S	105-67-9	34
NELAC 2,4-Dinitrophenol	<1.98	ug/L	1.98		51-28-5	34
NELAC 2,4-Dinitrotoluene	<1.98	ug/L	1.98		121-14-2	34
NELAC 2,6-Dinitrotoluene	<1.98	ug/L	1.98		606-20-2	34
NELAC 2-Chloronaphthalene	<0.988	ug/L	0.988		91-58-7	34
NELAC 2-Chlorophenol	<0.988	ug/L	0.988		95-57-8	34
NELAC 2-Methylphenol (o-Cresol)	<9.88	ug/L	9.88		95-48-7	34
NELAC 2-Nitrophenol	<0.988	ug/L	0.988		88-75-5	34
NELAC 3&4-Methylphenol (m&p-Cresol)	<7.91	ug/L	7.91		MEPH34	34
NELAC 3,3'-Dichlorobenzidine	<1.98	ug/L	1.98		91-94-1	34
NELAC 4,6-Dinitro-2-methylphenol	<1.98	ug/L	1.98		534-52-1	34
NELAC 4-Bromophenyl phenyl ether	<0.988	ug/L	0.988		101-55-3	34
NELAC 4-Chlorophenyl phenyl ethe	<0.988	ug/L	0.988		7005-72-3	34
NELAC 4-Nitrophenol	<0.988	ug/L	0.988		100-02-7	34
NELAC Acenaphthene	<0.988	ug/L	0.988		83-32-9	34
NELAC Acenaphthylene	<0.988	ug/L	0.988		208-96-8	34
z Aniline	<2.44	ug/L	2.44	S	62-53-3	34



SPAC-R

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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water

Collected by: Client
 Taken: 05/29/2024

SPACE X
 18:30:00

PO: 2605353

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Anthracene	<0.988	ug/L	0.988		120-12-7	34
NELAC Benzidine	<1.48	ug/L	1.48		92-87-5	34
NELAC Benzo(a)anthracene	<0.988	ug/L	0.988		56-55-3	34
NELAC Benzo(a)pyrene	<0.988	ug/L	0.988		50-32-8	34
NELAC Benzo(b)fluoranthene	<0.988	ug/L	0.988		205-99-2	34
NELAC Benzo(ghi)perylene	<0.988	ug/L	0.988		191-24-2	34
NELAC Benzo(k)fluoranthene	<0.988	ug/L	0.988		207-08-9	34
NELAC Benzyl Butyl phthalate	<7.41	ug/L	7.41		85-68-7	34
NELAC Bis(2-chloroethoxy)methane	<0.988	ug/L	0.988		111-91-1	34
NELAC Bis(2-chloroethyl)ether	<0.988	ug/L	0.988		111-44-4	34
NELAC Bis(2-chloroisopropyl)ether	<0.988	ug/L	0.988		108-60-1	34
NELAC Bis(2-ethylhexyl)phthalate	<7.41	ug/L	7.41		117-81-7	34
NELAC Chrysene (Benzo(a)phenanthrene)	<0.988	ug/L	0.988		218-01-9	34
NELAC Dibenz(a,h)anthracene	<0.988	ug/L	0.988		53-70-3	34
NELAC Diethyl phthalate	<5.63	ug/L	5.63		84-66-2	34
NELAC Dimethyl phthalate	<4.74	ug/L	4.74		131-11-3	34
NELAC Di-n-butylphthalate	<7.41	ug/L	7.41		84-74-2	34
NELAC Di-n-octylphthalate	<1.98	ug/L	1.98		117-84-0	34
NELAC Fluoranthene(Benzo(j,k)fluorene)	<0.988	ug/L	0.988		206-44-0	34
NELAC Fluorene	<0.988	ug/L	0.988		86-73-7	34
NELAC Hexachlorobenzene	<0.988	ug/L	0.988		118-74-1	34
NELAC Hexachlorobutadiene	<1.02	ug/L	1.02		87-68-3	34
NELAC Hexachlorocyclopentadiene	<0.988	ug/L	0.988		77-47-4	34
NELAC Hexachloroethane	<1.98	ug/L	1.98		67-72-1	34
NELAC Indeno(1,2,3-cd)pyrene	<0.988	ug/L	0.988		193-39-5	34
NELAC Isophorone	<0.988	ug/L	0.988		78-59-1	34
NELAC Naphthalene	<0.988	ug/L	0.988		91-20-3	34
NELAC Nitrobenzene	<0.988	ug/L	0.988		98-95-3	34
NELAC n-Nitrosodiethylamine	<0.988	ug/L	0.988	X	55-18-5	34
NELAC N-Nitrosodimethylamine	<0.988	ug/L	0.988		62-75-9	34
NELAC n-Nitroso-di-n-butylamine	<0.988	ug/L	0.988		924-16-3	34
NELAC N-Nitrosodi-n-propylamine	<0.988	ug/L	0.988		621-64-7	34
NELAC N-Nitrosodiphenylamine (as DPA)	<0.988	ug/L	0.988		86-30-6	34
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<0.988	ug/L	0.988		59-50-7	34
NELAC Pentachlorobenzene	<0.988	ug/L	0.988		608-93-5	34
NELAC Pentachlorophenol	<4.94	ug/L	4.94		87-86-5	34



SPAC-R

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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phenanthrene	<0.988	ug/L	0.988		85-01-8	34
NELAC Phenol	<0.988	ug/L	0.988		108-95-2	34
NELAC Pyrene	<0.988	ug/L	0.988		129-00-0	34
NELAC Pyridine	<1.33	ug/L	1.33	X	110-86-1	34

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Calculated 1124511 06/19/2024 13:56:10 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cresols Total	<7.91	ug/L	7.91		1319-77-3, etc.	34

SM 2130 B-2011 Prepared: 1123697 06/11/2024 15:25:00 Analyzed 1123697 06/11/2024 15:25:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Turbidity	2.55	NTU	0.300	H		11

SM 2320 B-2011 Prepared: 1122797 06/07/2024 09:23:00 Analyzed 1122797 06/07/2024 09:23:00 KNI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Alkalinity (as CaCO3)	136	mg/L	1.00			18

SM 2540 C-2015 Prepared: 1122168 06/03/2024 08:30:00 Analyzed 1122168 06/03/2024 08:30:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	950	mg/L	50.0			11

SM 2540 D-2015 Prepared: 1121687 05/30/2024 15:00:00 Analyzed 1121687 05/30/2024 15:00:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Suspended Solids	7.50	mg/L	2.00			11

SM 3500-Cr B-2011 Prepared: 1121254 05/29/2024 18:30:00 Analyzed 1121254 05/29/2024 18:30:00 JMZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hex Cr, Field Preservation	preserved	ug/L	3		18540-29-9	



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 3500-Cr B-2011 Prepared: 1122575 06/05/2024 09:00:00 Analyzed 1122575 06/05/2024 09:00:00 ALB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	<3.00	ug/L	3.00		18540-29-9	19

SM 4500-CN⁻E-2016 Prepared: 1121649 05/31/2024 07:45:07 Analyzed 1122121 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	<0.00238	mg/L	0.00238			23

SM 4500-CN⁻G-2016 Prepared: 06/04/2024 16:15:50 Calculated 06/04/2024 16:15:50 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	<0.00238	mg/L	0.00238			

SM 4500-CN⁻G-2016 Prepared: 1121666 05/31/2024 09:01:54 Analyzed 1122125 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			29

SM 4500-H+ B-2011 Prepared: 1121148 05/28/2024 03:56:00 Analyzed 1121148 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
pH Client Provided	6.97	SU	0			

SM 4500-PE-2011 Prepared: 1121996 06/03/2024 12:10:00 Analyzed 1121996 06/03/2024 12:10:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.0241	mg/L	0.00311		7723-14-0	13

SM 5210 B-2016 Prepared: 1121636 05/31/2024 Analyzed 1121636 06/05/2024 13:39:32 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	8.49	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
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Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	2.08	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1121775 05/31/2024 11:00:00 Analyzed 1121775 05/31/2024 11:00:00 HLT

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			13

SM 5310 C-2014 Prepared: 1122326 06/05/2024 12:13:00 Analyzed 1122326 06/05/2024 12:13:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.53	mg/L	0.500			15

Sample Preparation

2302895 RETENTION POND

Received: 05/30/2024

05/29/2024

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Prepared: 12/31/1899 10:21:18 Calculated 10:21:18 CAL

z Environmental Fee (per Project) Verified

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

z Nonyl Phenol Expansion Entered 36

EPA 1664B (HEM) Prepared: 1122284 06/05/2024 10:00:00 Analyzed 1122284 06/05/2024 10:00:00 MAX

NELAC O&G HEM Started Started



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Received: 05/30/2024
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05/29/2024

	<i>EPA 200.2 2.8</i>		<i>Prepared: 1121672 05/31/2024 08:00:00</i>	<i>Analyzed 1121672 05/31/2024 08:00:00</i>		<i>HLT</i>
z	Liquid Metals Digestion	50/50	ml			12
	<i>EPA 245.1 3</i>		<i>Prepared: 1121865 06/03/2024 10:30:00</i>	<i>Analyzed 1121865 06/03/2024 10:30:00</i>		<i>ALB</i>
NELAC	Mercury Liquid Metals Digestion	50/25	ml			12
	<i>EPA 350.2, Rev. 2.0</i>		<i>Prepared: 1121581 05/30/2024 15:18:42</i>	<i>Analyzed 1121581 05/30/2024 15:18:42</i>		<i>SRJ</i>
NELAC	Ammonia Distillation	6/6	ml			13
	<i>EPA 351.2, Rev 2.0</i>		<i>Prepared: 1121658 05/31/2024 08:22:52</i>	<i>Analyzed 1121658 05/31/2024 08:22:52</i>		<i>MEG</i>
NELAC	TKN Block Digestion	20/20	ml			14
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1121972 06/03/2024 14:30:00</i>		<i>MCC</i>
	PCB Liq-Liq Extr. W/Hex Exch.	10/605	ml			01
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1122623 06/06/2024 01:55:00</i>		<i>KAP</i>
NELAC	Polychlorinated Biphenyls	Entered				35
	<i>EPA 624.1</i>		<i>Prepared: 1121678 05/30/2024 17:55:00</i>	<i>Analyzed 1121678 05/30/2024 17:55:00</i>		<i>MRI</i>
NELAC	Acrolein/Acrylonitrile Exp.	Entered				04
	<i>EPA 624.1</i>		<i>Prepared: 1121680 05/30/2024 19:47:00</i>	<i>Analyzed 1121680 05/30/2024 19:47:00</i>		<i>MRI</i>
z	Table D-1/D-2 Volatile Expansion	Entered				07



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EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1121954	06/03/2024	14:00:00	MCC
Liquid-Liquid Extraction, BNA	1/1012	ml					02
EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1124511	06/17/2024	20:50:00	PMI
NELAC Table D-1/ D-2 Semivolatiles Exp	Entered						34
EPA 625.1	Prepared: 1122298	06/05/2024	14:00:00	Analyzed 1122298	06/05/2024	14:00:00	MCC
Nonylphenol Liq-Liq Extract	1/892	ml					09
SM 2540 C-2015	Prepared: 1121816	06/03/2024	08:30:00	Analyzed 1121816	06/03/2024	08:30:00	ADR
NELAC Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1121228	05/30/2024	15:00:00	Analyzed 1121228	05/30/2024	15:00:00	ADR
NELAC TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1121649	05/31/2024	07:45:07	Analyzed 1121649	05/31/2024	07:45:07	MEG
NELAC Cyanide Distillation	10/5	ml					17
SM 4500-CN ⁻ C-2016	Prepared: 1121666	05/31/2024	09:01:54	Analyzed 1121666	05/31/2024	09:01:54	MEG
NELAC CN Dist After Chlorination	10/5	ml					17
SM 5210 B-2016	Prepared: 1121636	05/31/2024		Analyzed 1121636	05/31/2024	06:51:30	ESN
NELAC BOD Set Started	Started						



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05/29/2024

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 05/31/2024 06:51:30 ESN

NELAC **BODc Set Started** Started

Qualifiers:

- J - Analyte detected below quantitation limit
- X - Standard reads higher than desired.
- H - Sample started outside recommended holding time
- S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC. RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



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Analytical Set **1121636**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385424
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385476
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385536

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2302815	17.2	18.0	mg/L	4.55	30.0
Biochemical Oxygen Demand (BOD5)	2302842	64.2	62.7	mg/L	2.36	30.0
Biochemical Oxygen Demand (BOD5)	2302972	8.48	11.4	mg/L	29.4	30.0
Biochemical Oxygen Demand (BOD5)	2303089	91.2	81.3	mg/L	11.5	30.0
Biochemical Oxygen Demand (BOD5)	2303148	9.52	9.70	mg/L	1.87	30.0
Biochemical Oxygen Demand (BOD5)	2303336	40.9	30.4	mg/L	29.5	30.0
Biochemical Oxygen Demand (BOD5)	2303410	4.83	4.19	mg/L	14.2	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.697	0.200	0.500	mg/L	126385426
Biochemical Oxygen Demand (BOD5)	1121636	0.850	0.200	0.500	mg/L	126385478
Biochemical Oxygen Demand (BOD5)	1121636	1.04	0.200	0.500	mg/L	126385538

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		226	198	mg/L	114	83.7 - 116	126385427
Biochemical Oxygen Demand (BOD5)		218	198	mg/L	110	83.7 - 116	126385479
Biochemical Oxygen Demand (BOD5)		216	198	mg/L	109	83.7 - 116	126385539

Analytical Set **1121637**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385562
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385614
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385664

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
BOD Carbonaceous	2302827	3.48	3.04	mg/L	13.5	30.0
BOD Carbonaceous	2302936	ND	ND	mg/L		30.0
BOD Carbonaceous	2303036	3.00	2.84	mg/L	5.48	30.0
BOD Carbonaceous	2303169	2.40	ND	mg/L	200 *	30.0
BOD Carbonaceous	2303211	2.48	2.28	mg/L	8.40	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.830	0.200	0.500	mg/L	126385564
BOD Carbonaceous	1121637	0.880	0.200	0.500	mg/L	126385616

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Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.840	0.200	0.500	mg/L	126385666

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
BOD Carbonaceous		226	198	mg/L	114	83.7 - 116	126385565
BOD Carbonaceous		217	198	mg/L	110	83.7 - 116	126385617
BOD Carbonaceous		219	198	mg/L	111	83.7 - 116	126385667

Analytical Set 1122121

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide, total	1121649	ND	0.00238	0.005	mg/L	126398027

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126398017
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398028
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398035
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398036
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398037
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398038
Cyanide, total	0.540	0.500	mg/L	108	90.0 - 110	126398039
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398040
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398048
Cyanide, total	0.527	0.500	mg/L	105	90.0 - 110	126398059

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	2302895	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.199	0.200	mg/L	99.5	90.0 - 110	126398016

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	1121649	0.361	0.364	0.400	90.0 - 110	90.2	91.0	mg/L	0.828	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide, total	2302895	0.362	ND	0.400	mg/L	90.5	90.0 - 110	126398033

Analytical Set 1122125

SM 4500-CN⁻ G-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide After Chlorination	1121666	ND	0.00119	0.0025	mg/L	126398194

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126398189
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398190
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398191
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398192
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398193
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398200
Cyanide After Chlorination	0.540	0.500	mg/L	108	90.0 - 110	126398204
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398215
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398219
Cyanide After Chlorination	0.527	0.500	mg/L	105	90.0 - 110	126398220

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide After Chlorination	2302508	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide After Chlorination	0.199	0.200	mg/L	99.5	90.0 - 110	126398188

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide After Chlorination	1121666	0.181	0.182	0.200	90.0 - 110	90.5	91.0	mg/L	0.551	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide After Chlorination	2302508	0.361	ND	0.400	mg/L	90.2	90.0 - 110	126398199

Analytical Set 1122132

EPA 351.2 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Kjeldahl Nitrogen	1121658	ND	0.00712	0.050	mg/L	126398380

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398368
Total Kjeldahl Nitrogen	5.20	5.00	mg/L	104	90.0 - 110	126398377
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398388
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398399
Total Kjeldahl Nitrogen	5.47	5.00	mg/L	109	90.0 - 110	126398410
Total Kjeldahl Nitrogen	5.44	5.00	mg/L	109	90.0 - 110	126398421
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126398432
Total Kjeldahl Nitrogen	5.29	5.00	mg/L	106	90.0 - 110	126398436
Total Kjeldahl Nitrogen	5.37	5.00	mg/L	107	90.0 - 110	126398437
Total Kjeldahl Nitrogen	4.93	5.00	mg/L	98.6	90.0 - 110	126398447
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	126398448
Total Kjeldahl Nitrogen	5.30	5.00	mg/L	106	90.0 - 110	126398449

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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	2302945	ND	ND	mg/L		20.0
Total Kjeldahl Nitrogen	2303187	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126398367

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	1121658	4.73	4.67	5.00	90.0 - 110	94.6	93.4	mg/L	1.28	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>	
Total Kjeldahl Nitrogen	2302945	-0.541	ND	5.00	mg/L	0	80.0 - 120	126398385	*
Total Kjeldahl Nitrogen	2303187	4.77	ND	5.00	mg/L	95.4	80.0 - 120	126398389	

Analytical Set 1122206

EPA 350.1 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Ammonia Nitrogen	1121581	ND	0.00336	0.020	mg/L	126399578

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399560
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399569
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399576
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399587
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399598
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126399608
Ammonia Nitrogen	2.13	2.00	mg/L	106	90.0 - 110	126399616
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399619
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399628
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399639
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399647
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399658
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399668
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399672
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399677
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399685
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399696
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399707
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399715
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399717

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
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QUALITY CONTROL



SPAC-R

SPACEX
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 Space Exploration Technologies
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 Brownsville, TX 78521

Project
1105141

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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	2302876	0.138	0.142	mg/L	2.86	20.0
Ammonia Nitrogen	2302888	0.090	0.086	mg/L	4.55	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399559

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	1121581	2.09	2.10	2.00	90.0 - 110	104	105	mg/L	0.477	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Ammonia Nitrogen	2302876	2.11	0.142	2.00	mg/L	98.4	80.0 - 120	126399583
Ammonia Nitrogen	2302888	2.19	0.086	2.00	mg/L	105	80.0 - 120	126399586

Analytical Set

1121687

SM 2540 D-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	ND	2	2	mg/L	126387239

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	-0.0001			grams	126387238

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2302808	10.6	10.3	mg/L	2.87	20.0
Total Suspended Solids	2302810	8.48	8.26	mg/L	2.63	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1121687	54.0	50.0	mg/L	108	90.0 - 110	126387257

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		108	100	mg/L	108	90.0 - 110	126387256

Analytical Set

1122168

SM 2540 C-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	5.00	5.00	5.00	mg/L	126398839

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	0.0005			grams	126398826

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QUALITY CONTROL



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Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Dissolved Solids	2302642	18.0	ND	mg/L	200 *	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Dissolved Solids	1122168	198	200	mg/L	99.0	85.0 - 115	126398840

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Dissolved Solids		90.0	100	mg/L	90.0	90.0 - 110	126398827

Analytical Set 1122457

EPA 1664B (HEM)

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1122457	ND	0.804	4.00	mg/L	126408507

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1122457	0.0005			grams	126408506
Oil and Grease (HEM)	1122457	0.0001			grams	126408531

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Oil and Grease (HEM)	1122457	37.4	40.0	mg/L	93.5	78.0 - 114	126408508

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2302895	39.9	0	3.60	40.0	78.0 - 114	99.8		mg/L		20.0

Analytical Set 1121871

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.120	0.100	mg/L	120	70.0 - 130	126391539
Nitrate-Nitrogen Total	0.021	0.0226	mg/L	92.9	70.0 - 130	126391539

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1121871	ND	0.0972	0.300	mg/L	126391540
Fluoride	1121871	ND	0.010	0.100	mg/L	126391540
Nitrate-Nitrogen Total	1121871	ND	0.00745	0.0226	mg/L	126391540

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1121871	0.025	0.0972	0.300	mg/L	126391536
Chloride	1121871	0.012	0.0972	0.300	mg/L	126391552
Chloride	1121871	0.030	0.0972	0.300	mg/L	126391568
Fluoride	1121871	0	0.010	0.100	mg/L	126391536
Fluoride	1121871	0	0.010	0.100	mg/L	126391552

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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Fluoride	1121871	0	0.010	0.100	mg/L	126391568
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391536
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391552
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391568

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126391535
Chloride	9.99	10.0	mg/L	99.9	90.0 - 110	126391551
Chloride	10.0	10.0	mg/L	100	90.0 - 110	126391567
Fluoride	10.0	10.0	mg/L	100	90.0 - 110	126391535
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126391551
Fluoride	9.88	10.0	mg/L	98.8	90.0 - 110	126391567
Nitrate-Nitrogen Total	2.31	2.26	mg/L	102	90.0 - 110	126391535
Nitrate-Nitrogen Total	2.25	2.26	mg/L	99.6	90.0 - 110	126391551
Nitrate-Nitrogen Total	2.21	2.26	mg/L	97.8	90.0 - 110	126391567

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1121871	5.08	5.01	5.00	85.0 - 115	102	100	mg/L	1.39	20.0
Fluoride	1121871	4.81	4.77	5.00	88.0 - 120	96.2	95.4	mg/L	0.835	20.0
Nitrate-Nitrogen Total	1121871	1.13	1.10	1.13	88.0 - 116	100	97.3	mg/L	2.69	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2302484	323	323	231	100	80.0 - 120	92.0	92.0	mg/L	0	20.0
Fluoride	2302484	88.6	90.5	ND	100	80.0 - 120	88.6	90.5	mg/L	2.12	20.0
Nitrate-Nitrogen Total	2302484	22.0	22.0	0.767	22.6	80.0 - 120	94.0	94.0	mg/L	0	20.0
Chloride	2302487	1880	1840	1690	200	80.0 - 120	95.0	75.0 *	mg/L	23.5 *	20.0
Fluoride	2302487	176	177	ND	200	80.0 - 120	88.0	88.5	mg/L	0.567	20.0
Nitrate-Nitrogen Total	2302487	44.9	43.9	1.72	45.2	80.0 - 120	95.5	93.3	mg/L	2.34	20.0

Analytical Set 1122502

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	ND	0.254	0.300	mg/L	126409510

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	0	0.254	0.300	mg/L	126409506
Sulfate	1122502	0	0.254	0.300	mg/L	126409526
Sulfate	1122502	0	0.254	0.300	mg/L	126409538

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.79	10.0	mg/L	97.9	90.0 - 110	126409505

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.56	10.0	mg/L	95.6	90.0 - 110	126409525
Sulfate	9.60	10.0	mg/L	96.0	90.0 - 110	126409537

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1122502	4.68	4.68	5.00	85.0 - 115	93.6	93.6	mg/L	0	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2302895	362	367	282	100	80.0 - 120	80.0	85.0	mg/L	6.06	20.0
Sulfate	2303362	411	401	340	100	80.0 - 120	71.0 *	61.0 *	mg/L	15.2	20.0

Analytical Set 1121966

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1121865	ND	0.113	0.200	ug/L	126393298

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.89	5.000	ug/L	97.8	90.0 - 110	126393282
Mercury, Total	4.90	5.000	ug/L	98.0	90.0 - 110	126393283
Mercury, Total	4.84	5.000	ug/L	96.8	90.0 - 110	126393297
Mercury, Total	4.77	5.000	ug/L	95.4	90.0 - 110	126393304
Mercury, Total	4.81	5.000	ug/L	96.2	90.0 - 110	126393311

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	19.9	20.00	ug/L	99.5	90.0 - 110	126393281

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.98	5.000	ug/L	99.6	90.0 - 110	126393280

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total	1121865	8.94	8.99	10.0	85.0 - 115	89.4	89.9	ug/L	0.558	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total	2302895	8.99	9.05	ND	10.0	70.0 - 130	89.9	90.5	ug/L	0.665	20.0

Analytical Set 1122038

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Aluminum, Total	1121672	ND	0.00171	0.00171	mg/L	126395960
Arsenic, Total	1121672	ND	0.000184	0.001	mg/L	126395960
Barium, Total	1121672	ND	0.000635	0.001	mg/L	126395960

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Beryllium, Total	1121672	ND	0.000139	0.001	mg/L	126395960
Cadmium, Total	1121672	ND	0.000067	0.001	mg/L	126395960
Chromium, Total	1121672	ND	0.000621	0.001	mg/L	126395960
Copper, Total	1121672	ND	0.00155	0.00155	mg/L	126395960
Lead, Total	1121672	ND	0.000244	0.001	mg/L	126395960
Nickel, Total	1121672	ND	0.00112	0.00112	mg/L	126395960
Silver, Total	1121672	ND	0.000226	0.001	mg/L	126395960
Thallium, Total	1121672	ND	0.000106	0.001	mg/L	126395960
Zinc, Total	1121672	ND	0.000875	0.001	mg/L	126395960

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395958
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395959
Aluminum, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395966
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396000
Aluminum, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396005
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126396011
Aluminum, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396017
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396024
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396034
Aluminum, Total	0.0541	0.05	mg/L	108	90.0 - 110	126396066
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126396077
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396083
Arsenic, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395959
Arsenic, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126395966
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126395971
Arsenic, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396005
Arsenic, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396011
Arsenic, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396017
Barium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Barium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Barium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395971
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396000
Barium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126396005
Barium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Barium, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396017
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396024
Beryllium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126395959
Beryllium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126395966
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395971
Cadmium, Total	0.0504	0.05	mg/L	101	90.0 - 110	126395958
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395966

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QUALITY CONTROL



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Cadmium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396005
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396017
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126395959
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Chromium, Total	0.0518	0.05	mg/L	104	90.0 - 110	126395972
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395973
Chromium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126395980
Chromium, Total	0.0461	0.05	mg/L	92.2	90.0 - 110	126395986
Chromium, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126395992
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396000
Chromium, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	126396005
Chromium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396011
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396017
Chromium, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126396024
Copper, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126395959
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Copper, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396005
Copper, Total	0.0457	0.05	mg/L	91.4	90.0 - 110	126396011
Copper, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126396017
Copper, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126396024
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396034
Copper, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396045
Copper, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396056
Copper, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396066
Copper, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126396077
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396083
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396094
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396105
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396110
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395959
Lead, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126395971
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395980
Lead, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126395986
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395992
Lead, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396000
Lead, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396005
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396011
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396017
Lead, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396024
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396034

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QUALITY CONTROL



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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396045
Lead, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126396056
Lead, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396066
Lead, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396077
Lead, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396083
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396094
Lead, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126396105
Lead, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396110
Nickel, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395959
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395966
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126395971
Nickel, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396005
Nickel, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396011
Nickel, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396017
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395958
Silver, Total	0.0538	0.05	mg/L	108	90.0 - 110	126395959
Silver, Total	0.0537	0.05	mg/L	107	90.0 - 110	126395966
Silver, Total	0.0536	0.05	mg/L	107	90.0 - 110	126395971
Silver, Total	0.052	0.05	mg/L	104	90.0 - 110	126396011
Silver, Total	0.0526	0.05	mg/L	105	90.0 - 110	126396017
Silver, Total	0.0528	0.05	mg/L	106	90.0 - 110	126396066
Silver, Total	0.0523	0.05	mg/L	105	90.0 - 110	126396077
Thallium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395959
Thallium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395966
Thallium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395971
Thallium, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396005
Thallium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Thallium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396017
Thallium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396024
Zinc, Total	0.0509	0.05	mg/L	102	90.0 - 110	126395959
Zinc, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Zinc, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395971
Zinc, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396005
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396017
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126396034
Zinc, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396045
Zinc, Total	0.0502	0.05	mg/L	100	90.0 - 110	126396066
Zinc, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126396077
Zinc, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396083

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Arsenic, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953

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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Barium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395953
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Cadmium, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953
Chromium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Lead, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395953
Nickel, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395953
Thallium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Zinc, Total	0.0508	0.05	mg/L	102	90.0 - 110	126395953

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Aluminum, Total	1121672	0.512	0.505	0.500	85.0 - 115	102	101	mg/L	1.38	20.0
Arsenic, Total	1121672	0.501	0.493	0.500	85.0 - 115	100	98.6	mg/L	1.61	20.0
Barium, Total	1121672	0.504	0.502	0.500	85.0 - 115	101	100	mg/L	0.398	20.0
Beryllium, Total	1121672	0.206	0.208	0.200	85.0 - 115	103	104	mg/L	0.966	20.0
Cadmium, Total	1121672	0.257	0.255	0.250	85.0 - 115	103	102	mg/L	0.781	20.0
Chromium, Total	1121672	0.495	0.489	0.500	85.0 - 115	99.0	97.8	mg/L	1.22	20.0
Copper, Total	1121672	0.506	0.502	0.500	85.0 - 115	101	100	mg/L	0.794	20.0
Lead, Total	1121672	0.518	0.517	0.500	85.0 - 115	104	103	mg/L	0.193	20.0
Nickel, Total	1121672	0.505	0.504	0.500	85.0 - 115	101	101	mg/L	0.198	20.0
Silver, Total	1121672	0.107	0.108	0.100	85.0 - 115	107	108	mg/L	0.930	20.0
Thallium, Total	1121672	0.518	0.516	0.500	85.0 - 115	104	103	mg/L	0.387	20.0
Zinc, Total	1121672	0.512	0.510	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

LDR

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	10.4	10	mg/L	104	90.0 - 110	126395955
Arsenic, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955
Barium, Total	9.52	10	mg/L	95.2	90.0 - 110	126395955
Beryllium, Total	10.3	10	mg/L	103	90.0 - 110	126395955
Cadmium, Total	9.71	10	mg/L	97.1	90.0 - 110	126395955
Chromium, Total	9.65	10	mg/L	96.5	90.0 - 110	126395955
Copper, Total	9.33	10	mg/L	93.3	90.0 - 110	126395955
Lead, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Manganese, Total	9.53	10	mg/L	95.3	90.0 - 110	126395955
Nickel, Total	9.56	10	mg/L	95.6	90.0 - 110	126395955
Thallium, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Zinc, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126395954
Lead, Total	0.000616	0.001	mg/L	61.6	25.0 - 175	126395954



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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Arsenic, Total	2303140	0.508	0.502	0.00457	0.500	70.0 - 130	101	99.5	mg/L	1.20	20.0
Beryllium, Total	2303140	0.212	0.209	ND	0.200	70.0 - 130	106	104	mg/L	1.43	20.0
Chromium, Total	2303140	0.488	0.500	0.00079	0.500	70.0 - 130	97.4	99.8	mg/L	2.43	20.0
Lead, Total	2303140	0.521	0.514	0.000346	0.500	70.0 - 130	104	103	mg/L	1.35	20.0
Nickel, Total	2303140	0.505	0.496	0.0021	0.500	70.0 - 130	101	98.8	mg/L	1.81	20.0
Silver, Total	2303140	0.108	0.106	ND	0.100	70.0 - 130	108	106	mg/L	1.87	20.0
Zinc, Total	2303140	0.526	0.521	0.0197	0.500	70.0 - 130	101	100	mg/L	0.992	20.0
Aluminum, Total	2303221	0.529	0.552	0.0225	0.500	70.0 - 130	101	106	mg/L	4.44	20.0
Barium, Total	2303221	0.502	0.508	0.00469	0.500	70.0 - 130	99.5	101	mg/L	1.20	20.0
Cadmium, Total	2303221	0.252	0.252	0.000148	0.250	70.0 - 130	101	101	mg/L	0	20.0
Copper, Total	2303221	0.506	0.515	0.0092	0.500	70.0 - 130	99.4	101	mg/L	1.80	20.0

Analytical Set 1122039

EPA 200.8 5.4

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Thallium, Total	2303221	0.524	0.522	0.000329	0.500	81.1 - 109	105	104	mg/L	0.383	20.0

Analytical Set 1122326

SM 5310 C-2014

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	2.15	2.00	mg/L	108	50.0 - 150	126402004

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.136	0.0618	0.500	mg/L	126402003

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.0999	0.0618	0.500	mg/L	126401997
Total Organic Carbon	1122326	0.154	0.0618	0.500	mg/L	126402015

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126402000
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402016

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126401999

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402001

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Organic Carbon	1122326	5.05	5.00	mg/L	101	85.0 - 115	126402002

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MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Total Organic Carbon	2302870	10.4	10.4	0.865	10.0	85.0 - 115	95.4	95.4	mg/L	0	20.0

Standard							
<i>Parameter</i>	<i>Sample</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Total Organic Carbon		49.1	50.0	mg/L	98.2	90.0 - 110	126401998

Analytical Set 1122450

EPA 200.8 5.4

Blank							
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>	
Selenium, Total	1121672	0.000873	0.000728	0.002	mg/L	126408062	

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126407962	
Selenium, Total	0.0503	0.05	mg/L	101	90.0 - 110	126407972	
Selenium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126407982	
Selenium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126407989	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408000	
Selenium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126408005	
Selenium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126408012	
Selenium, Total	0.050	0.05	mg/L	100	90.0 - 110	126408013	
Selenium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126408022	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408061	
Selenium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126408066	
Selenium, Total	0.0516	0.05	mg/L	103	90.0 - 110	126408072	

ICV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126407941	

LCS Dup										
<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	1121672	0.494	0.494	0.500	85.0 - 115	98.8	98.8	mg/L	0	20.0

MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	2303221	0.484	0.481	0.00162	0.500	70.0 - 130	96.5	95.9	mg/L	0.624	20.0

Analytical Set 1122575

SM 3500-Cr B-2011

Blank							
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>	
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411861	
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411873	

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Hexavalent Chromium	85.2	80.0	ug/L	106	90.0 - 110	126411862	

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Hexavalent Chromium	85.4	80.0	ug/L	107	90.0 - 110	126411874

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Hexavalent Chromium	1122575	85.4	86.2	80.0	85.0 - 115	107	108	ug/L	0.932	15.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Hexavalent Chromium	2304236	68.6	67.6	ND	80.0	70.0 - 130	85.8	84.5	ug/L	1.47	20.0

Analytical Set 1123260

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Antimony, Total	1121672	ND	0.000847	0.003	mg/L	126429301

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0525	0.05	mg/L	105	90.0 - 110	126429267
Antimony, Total	0.0537	0.05	mg/L	107	90.0 - 110	126429277
Antimony, Total	0.0533	0.05	mg/L	107	90.0 - 110	126429287
Antimony, Total	0.053	0.05	mg/L	106	90.0 - 110	126429295
Antimony, Total	0.0539	0.05	mg/L	108	90.0 - 110	126429305
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429311
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429321
Antimony, Total	0.0541	0.05	mg/L	108	90.0 - 110	126429331

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.050	0.05	mg/L	100	90.0 - 110	126429237

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Antimony, Total	1121672	0.516	0.514	0.500	85.0 - 115	103	103	mg/L	0.388	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Antimony, Total	2303221	0.511	0.517	ND	0.500	70.0 - 130	102	103	mg/L	1.17	20.0

Analytical Set 1123498

EPA 200.7 4.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Calcium	1121672	ND	0.0156	0.500	mg/L	126434927
Iron, Total	1121672	ND	0.00379	0.025	mg/L	126434927

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126434920

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QUALITY CONTROL



SPAC-R

SPACEX
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Project
1105141

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	25.1	25.0	mg/L	100	90.0 - 110	126434930
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126434936
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126434920
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434930
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126434936

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126434914
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126434914

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126434918
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434918

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1121672	4.91	4.89	5.00	85.0 - 115	98.2	97.8	mg/L	0.408	25.0
Iron, Total	1121672	0.498	0.497	0.500	85.0 - 115	99.6	99.4	mg/L	0.201	25.0

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126434919
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126434919

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2303221	6.42	6.55	1.56	5.00	75.0 - 125	97.2	99.8	mg/L	2.64	25.0
Iron, Total	2303221	0.560	0.563	0.080	0.500	75.0 - 125	96.0	96.6	mg/L	0.623	25.0

Analytical Set 1123699

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>	<u>File</u>
Manganese, Total	1121672	ND	0.000168	0.001	mg/L	126440088

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Manganese, Total	0.0529	0.05	mg/L	106	90.0 - 110	126440082
Manganese, Total	0.052	0.05	mg/L	104	90.0 - 110	126440092
Manganese, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126440119
Manganese, Total	0.050	0.05	mg/L	100	90.0 - 110	126440128
Manganese, Total	0.0535	0.05	mg/L	107	90.0 - 110	126440204
Manganese, Total	0.0508	0.05	mg/L	102	90.0 - 110	126440235
Manganese, Total	0.0516	0.05	mg/L	103	90.0 - 110	126440243
Manganese, Total	0.0538	0.05	mg/L	108	90.0 - 110	126440254

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QUALITY CONTROL



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ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126440073

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Manganese, Total	1121672	0.510	0.512	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126440074

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Manganese, Total	2303221	0.504	0.501	0.00211	0.500	70.0 - 130	100	99.8	mg/L	0.600	20.0

Analytical Set 1121678

EPA 624.1

BFB

<u>Parameter</u>	<u>Sample</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>
BFB Mass 173	1121678	174	10	1.5	0 - 2.00	126387047
BFB Mass 174	1121678	95.0	676	60.4	50.0 - 100	126387047
BFB Mass 175	1121678	174	50	7.4	5.00 - 9.00	126387047
BFB Mass 176	1121678	174	648	95.9	95.0 - 101	126387047
BFB Mass 177	1121678	176	44	6.8	5.00 - 9.00	126387047
BFB Mass 50	1121678	95.0	225	20.1	15.0 - 40.0	126387047
BFB Mass 75	1121678	95.0	557	49.8	30.0 - 60.0	126387047
BFB Mass 95	1121678	95.0	1118	100.0	100 - 100	126387047
BFB Mass 96	1121678	95.0	73	6.5	5.00 - 9.00	126387047

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Acrolein	1121678	ND	2.33	4.00	ug/L	126387051
Acrylonitrile	1121678	ND	0.998	1.00	ug/L	126387051

IS Areas

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	170700	179900	89970	269900	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	168300	179900	89970	269900	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	143200	179900	89970	269900	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	373700	398400	199200	597600	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	381600	398400	199200	597600	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	337200	398400	199200	597600	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	174400	179900	89970	269900	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	396500	398400	199200	597600	126387055	1121678

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SPAC-R

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	11.97	11.97	11.91	12.03	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	11.97	11.97	11.91	12.03	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	11.97	11.97	11.91	12.03	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	9.597	9.597	9.537	9.657	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	9.597	9.597	9.537	9.657	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	9.597	9.597	9.537	9.657	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387055	1121678

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1121678	58.0	55.0	40.0	60.0 - 140	145 *	138	ug/L	4.95	30.0
Acrylonitrile	1121678	34.4	33.8	40.0	60.0 - 140	86.0	84.5	ug/L	1.76	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2301862	17.9	34.6	ND	400	40.0 - 160	4.48 *	8.65 *	ug/L	63.6 *	60.0
Acrylonitrile	2301862	19.8	3.00	ND	400	40.0 - 160	4.95 *	0.750 *	ug/L	147 *	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121678	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387049
1,2-DCA-d4 (SURR)	1121678	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387050
1,2-DCA-d4 (SURR)	1121678	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387051
Bromofluorobenzene (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Bromofluorobenzene (SURR)	1121678	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387050
Bromofluorobenzene (SURR)	1121678	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387051
Dibromofluoromethane (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Dibromofluoromethane (SURR)	1121678	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387050
Dibromofluoromethane (SURR)	1121678	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387051
TolueneD8 (SURR)	1121678	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387049
TolueneD8 (SURR)	1121678	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387050
TolueneD8 (SURR)	1121678	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387051
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387053
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387054
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387053
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387053
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387054
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387053
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
1,2-DCA-d4 (SURR)	2302895	Unknown	19.8	20.0	ug/L	99.0	70.0 - 130	126387055

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QUALITY CONTROL



SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2302895	Unknown	20.3	20.0	ug/L	102	70.0 - 130	126387055
Dibromofluoromethane (SURR)	2302895	Unknown	20.1	20.0	ug/L	100	70.0 - 130	126387055
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387055

Analytical Set

1121680

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1121680	174	10	1.5	0 - 2.00	126387066
BFB Mass 174	1121680	95.0	676	60.4	50.0 - 100	126387066
BFB Mass 175	1121680	174	50	7.4	5.00 - 9.00	126387066
BFB Mass 176	1121680	174	648	95.9	95.0 - 101	126387066
BFB Mass 177	1121680	176	44	6.8	5.00 - 9.00	126387066
BFB Mass 50	1121680	95.0	225	20.1	15.0 - 40.0	126387066
BFB Mass 75	1121680	95.0	557	49.8	30.0 - 60.0	126387066
BFB Mass 95	1121680	95.0	1118	100.0	100 - 100	126387066
BFB Mass 96	1121680	95.0	73	6.5	5.00 - 9.00	126387066

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,1,1-Trichloroethane	1121680	ND	0.531	1.00	ug/L	126387070
1,1,2-Trichloroethane	1121680	ND	0.563	1.00	ug/L	126387070
1,1-Dichloroethane	1121680	ND	0.593	1.00	ug/L	126387070
1,1-Dichloroethylene	1121680	ND	0.574	1.00	ug/L	126387070
1,2-Dibromoethane (EDB)	1121680	ND	0.562	1.00	ug/L	126387070
1,2-Dichloroethane	1121680	ND	0.590	1.00	ug/L	126387070
1,2-Dichloropropane	1121680	ND	0.615	1.00	ug/L	126387070
Benzene	1121680	ND	0.453	1.00	ug/L	126387070
Bromodichloromethane	1121680	ND	0.409	1.00	ug/L	126387070
Bromoform	1121680	ND	0.500	1.00	ug/L	126387070
Carbon Tetrachloride	1121680	ND	0.299	1.00	ug/L	126387070
Chlorobenzene	1121680	ND	0.558	1.00	ug/L	126387070
Chloroethane	1121680	ND	1.12	1.12	ug/L	126387070
Chloroform	1121680	ND	0.463	1.00	ug/L	126387070
Chloromethane (Methyl Chloride)	1121680	ND	0.811	1.00	ug/L	126387070
cis-1,3-Dichloropropene	1121680	ND	0.660	1.00	ug/L	126387070
Dibromochloromethane	1121680	ND	0.311	1.00	ug/L	126387070
Dichloromethane	1121680	ND	1.02	1.02	ug/L	126387070
Ethylbenzene	1121680	ND	0.498	1.00	ug/L	126387070
m-Dichlorobenzene (1,3-DCB)	1121680	ND	0.619	1.00	ug/L	126387070
Methyl ethyl ketone (Butanone)	1121680	ND	0.742	1.00	ug/L	126387070
o-Dichlorobenzene (1,2-DCB)	1121680	0.620	0.532	1.00	ug/L	126387070
p-Dichlorobenzene (1,4-DCB)	1121680	ND	0.837	1.00	ug/L	126387070
Tetrachloroethylene	1121680	ND	0.607	1.00	ug/L	126387070
Toluene	1121680	ND	0.655	1.00	ug/L	126387070
trans-1,2-Dichloroethylene	1121680	ND	0.701	1.00	ug/L	126387070

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SPAC-R

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
trans-1,3-Dichloropropene	1121680	ND	0.627	1.00	ug/L	126387070
Trichloroethylene	1121680	ND	0.521	1.00	ug/L	126387070
Vinyl chloride	1121680	ND	0.702	1.00	ug/L	126387070

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	170700	179900	89970	269900	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	168300	179900	89970	269900	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	143200	179900	89970	269900	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	373700	398400	199200	597600	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	381600	398400	199200	597600	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	337200	398400	199200	597600	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	192300	179900	89970	269900	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	439200	398400	199200	597600	126387074	1121680

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	11.97	11.97	11.91	12.03	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	11.97	11.97	11.91	12.03	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	11.97	11.97	11.91	12.03	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	9.597	9.597	9.537	9.657	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	9.597	9.597	9.537	9.657	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	9.597	9.597	9.537	9.657	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387074	1121680

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1121680	17.0	16.2	20.0	70.0 - 130	85.0	81.0	ug/L	4.82	21.0
1,1,2,2-Tetrachloroethane	1121680	18.3	17.9	20.0	60.0 - 140	91.5	89.5	ug/L	2.21	36.0
1,1,2-Trichloroethane	1121680	18.2	17.6	20.0	70.0 - 130	91.0	88.0	ug/L	3.35	27.0
1,1-Dichloroethane	1121680	17.6	16.6	20.0	70.0 - 130	88.0	83.0	ug/L	5.85	24.0
1,1-Dichloroethylene	1121680	17.1	16.2	20.0	50.0 - 150	85.5	81.0	ug/L	5.41	40.0
1,2-Dibromoethane (EDB)	1121680	18.4	17.5	20.0	78.4 - 122	92.0	87.5	ug/L	5.01	30.0
1,2-Dichloroethane	1121680	17.9	17.2	20.0	70.0 - 130	89.5	86.0	ug/L	3.99	29.0
1,2-Dichloropropane	1121680	18.0	17.2	20.0	35.0 - 165	90.0	86.0	ug/L	4.55	69.0
Benzene	1121680	17.1	16.4	20.0	65.0 - 135	85.5	82.0	ug/L	4.18	33.0
Bromodichloromethane	1121680	18.2	17.2	20.0	65.0 - 135	91.0	86.0	ug/L	5.65	34.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bromoform	1121680	17.4	17.0	20.0	70.0 - 130	87.0	85.0	ug/L	2.33	25.0
Bromomethane (Methyl Bromi	1121680	13.7	13.8	20.0	15.0 - 185	68.5	69.0	ug/L	0.727	90.0
Carbon Tetrachloride	1121680	17.6	16.9	20.0	70.0 - 130	88.0	84.5	ug/L	4.06	26.0
Chlorobenzene	1121680	18.0	17.2	20.0	65.0 - 135	90.0	86.0	ug/L	4.55	29.0
Chloroethane	1121680	15.2	15.0	20.0	40.0 - 160	76.0	75.0	ug/L	1.32	47.0
Chloroform	1121680	17.6	16.3	20.0	70.0 - 135	88.0	81.5	ug/L	7.67	32.0
Chloromethane (Methyl Chloride)	1121680	12.7	12.1	20.0	0.100 - 205	63.5	60.5	ug/L	4.84	472
cis-1,3-Dichloropropene	1121680	16.8	16.1	20.0	25.0 - 175	84.0	80.5	ug/L	4.26	79.0
Dibromochloromethane	1121680	18.5	17.6	20.0	70.0 - 135	92.5	88.0	ug/L	4.99	30.0
Dichloromethane	1121680	16.9	16.1	20.0	60.0 - 140	84.5	80.5	ug/L	4.85	192
Ethylbenzene	1121680	19.1	18.2	20.0	60.0 - 140	95.5	91.0	ug/L	4.83	34.0
m-Dichlorobenzene (1,3-DCB)	1121680	20.0	20.2	20.0	70.0 - 130	100	101	ug/L	0.995	24.0
Methyl ethyl ketone (Butanone)	1121680	18.6	16.8	20.0	62.3 - 136	93.0	84.0	ug/L	10.2	30.0
o-Dichlorobenzene (1,2-DCB)	1121680	18.9	18.4	20.0	65.0 - 135	94.5	92.0	ug/L	2.68	31.0
p-Dichlorobenzene (1,4-DCB)	1121680	18.7	18.7	20.0	65.0 - 135	93.5	93.5	ug/L	0	31.0
Tetrachloroethylene	1121680	19.0	18.4	20.0	70.0 - 130	95.0	92.0	ug/L	3.21	23.0
Toluene	1121680	17.3	16.5	20.0	70.0 - 130	86.5	82.5	ug/L	4.73	22.0
trans-1,2-Dichloroethylene	1121680	16.5	15.7	20.0	70.0 - 130	82.5	78.5	ug/L	4.97	27.0
trans-1,3-Dichloropropene	1121680	17.6	16.5	20.0	50.0 - 150	88.0	82.5	ug/L	6.45	52.0
Trichloroethylene	1121680	17.0	16.3	20.0	65.0 - 135	85.0	81.5	ug/L	4.20	29.0
Vinyl chloride	1121680	14.1	13.5	20.0	5.00 - 195	70.5	67.5	ug/L	4.35	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2301862	169	162	ND	200	52.0 - 162	84.5	81.0	ug/L	4.23	36.0
1,1,2,2-Tetrachloroethane	2301862	0	3.90	ND	200	70.0 - 130	*	1.95 *	ug/L		30.0
1,1,2-Trichloroethane	2301862	174	169	ND	200	52.0 - 150	87.0	84.5	ug/L	2.92	45.0
1,1-Dichloroethane	2301862	194	181	ND	200	59.0 - 155	97.0	90.5	ug/L	6.93	40.0
1,1-Dichloroethylene	2301862	182	173	ND	200	0.100 - 234	91.0	86.5	ug/L	5.07	32.0
1,2-Dibromoethane (EDB)	2301862	176	175	ND	200	49.3 - 120	88.0	87.5	ug/L	0.570	30.0
1,2-Dichloroethane	2301862	171	162	ND	200	49.0 - 155	85.5	81.0	ug/L	5.41	49.0
1,2-Dichloropropane	2301862	182	179	ND	200	0.100 - 210	91.0	89.5	ug/L	1.66	55.0
Benzene	2301862	183	171	ND	200	37.0 - 151	91.5	85.5	ug/L	6.78	61.0
Bromodichloromethane	2301862	166	163	ND	200	35.0 - 155	83.0	81.5	ug/L	1.82	56.0
Bromoform	2301862	87.1	91.9	ND	200	45.0 - 169	43.6 *	46.0	ug/L	5.36	42.0
Bromomethane (Methyl Bromi	2301862	117	113	ND	200	0.100 - 242	58.5	56.5	ug/L	3.48	61.0
Carbon Tetrachloride	2301862	161	147	ND	200	70.0 - 140	80.5	73.5	ug/L	9.09	41.0
Chlorobenzene	2301862	184	181	ND	200	37.0 - 160	92.0	90.5	ug/L	1.64	53.0
Chloroethane	2301862	160	150	ND	200	14.0 - 230	80.0	75.0	ug/L	6.45	78.0
Chloroform	2301862	184	168	ND	200	51.0 - 138	92.0	84.0	ug/L	9.09	54.0
Chloromethane (Methyl Chloride)	2301862	135	132	ND	200	0.100 - 273	67.5	66.0	ug/L	2.25	60.0
cis-1,3-Dichloropropene	2301862	168	165	ND	200	0.100 - 227	84.0	82.5	ug/L	1.80	58.0
Dibromochloromethane	2301862	161	160	ND	200	53.0 - 149	80.5	80.0	ug/L	0.623	50.0
Dichloromethane	2301862	170	164	ND	200	0.100 - 221	85.0	82.0	ug/L	3.59	28.0
Ethylbenzene	2301862	203	200	ND	200	37.0 - 162	102	100	ug/L	1.49	63.0

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
m-Dichlorobenzene (1,3-DCB)	2301862	216	227	ND	200	59.0 - 156	108	114	ug/L	4.97	43.0
Methyl ethyl ketone (Butanone)	2301862	0	0	ND	200	0.100 - 211	0 *	0 *	ug/L		30.0
o-Dichlorobenzene (1,2-DCB)	2301862	177	185	ND	200	18.0 - 190	88.5	92.5	ug/L	4.42	57.0
p-Dichlorobenzene (1,4-DCB)	2301862	191	217	ND	200	18.0 - 190	95.5	108	ug/L	12.7	57.0
Tetrachloroethylene	2301862	206	205	ND	200	64.0 - 148	103	102	ug/L	0.487	39.0
Toluene	2301862	182	176	ND	200	47.0 - 150	91.0	88.0	ug/L	3.35	41.0
trans-1,2-Dichloroethylene	2301862	166	154	ND	200	54.0 - 156	83.0	77.0	ug/L	7.50	45.0
trans-1,3-Dichloropropene	2301862	172	173	ND	200	17.0 - 183	86.0	86.5	ug/L	0.580	86.0
Trichloroethylene	2301862	348	342	ND	200	70.0 - 157	174 *	171 *	ug/L	1.74	48.0
Vinyl chloride	2301862	144	137	ND	200	0.100 - 251	72.0	68.5	ug/L	4.98	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121680	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387068
1,2-DCA-d4 (SURR)	1121680	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387069
1,2-DCA-d4 (SURR)	1121680	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387070
Bromofluorobenzene (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Bromofluorobenzene (SURR)	1121680	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387069
Bromofluorobenzene (SURR)	1121680	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387070
Dibromofluoromethane (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Dibromofluoromethane (SURR)	1121680	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387069
Dibromofluoromethane (SURR)	1121680	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387070
TolueneD8 (SURR)	1121680	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387068
TolueneD8 (SURR)	1121680	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387069
TolueneD8 (SURR)	1121680	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387070
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387072
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387073
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387072
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387072
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387073
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387072
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
1,2-DCA-d4 (SURR)	2302895	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126387074
Bromofluorobenzene (SURR)	2302895	Unknown	20.6	20.0	ug/L	103	70.0 - 130	126387074
Dibromofluoromethane (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074

Analytical Set

1122623

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
PCB-1016	1121972	ND	0.202	0.202	ug/L	126412989
PCB-1221	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1232	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1242	1121972	ND	0.192	0.200	ug/L	126412989

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1248	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1254	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1260	1121972	ND	0.161	0.200	ug/L	126412989
PCB-1262	1121972	ND	0.198	0.200	ug/L	126412989
PCB-1268	1121972	ND	0.143	0.200	ug/L	126412989

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	968	1000	ug/L	96.8	80.0 - 115	126412978
PCB-1016	1140	1000	ug/L	114	80.0 - 115	126412988
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412997
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412998
PCB-1260	853	1000	ug/L	85.3	80.0 - 115	126412978
PCB-1260	939	1000	ug/L	93.9	80.0 - 115	126412988
PCB-1260	1010	1000	ug/L	101	80.0 - 115	126412997
PCB-1260	987	1000	ug/L	98.7	80.0 - 115	126412998

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1121972	941	859	1000	39.8 - 135	94.1	85.9	ug/L	9.11	30.0
PCB-1260	1121972	728	711	1000	36.1 - 134	72.8	71.1	ug/L	2.36	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1121972	Blank	55.6	100	ug/L	55.6	10.0 - 200	126412989
Tetrachloro-m-Xylene (Surr)	1121972	Blank	46.2	100	ug/L	46.2	10.0 - 200	126412989
Decachlorobiphenyl	2302895	Unknown	1.26	1.65	ug/L	76.4	10.0 - 200	126412995
Tetrachloro-m-Xylene (Surr)	2302895	Unknown	0.697	1.65	ug/L	42.2	10.0 - 200	126412995

Analytical Set

1122871

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1122298	ND	5.00	30.0	ug/L	126419398

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	293000	300000	ug/L	97.5	70.0 - 130	126419397
Nonylphenol	299000	300000	ug/L	99.7	70.0 - 130	126419405

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	760100	760100	380100	1140000	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	706900	760100	380100	1140000	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	981000	981000	490500	1471000	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	925500	981000	490500	1471000	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	681400	760100	380100	1140000	126419398	1122298

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IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	1122298	LCS	663100	760100	380100	1140000	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	581500	760100	380100	1140000	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	930700	981000	490500	1471000	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	890000	981000	490500	1471000	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	773800	981000	490500	1471000	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	536500	760100	380100	1140000	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	747500	981000	490500	1471000	126419403	1122298

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	7.294	7.294	7.234	7.354	126419398	1122298
Acenaphthene-d10-ISTD	1122298	LCS	7.300	7.294	7.234	7.354	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	7.300	7.294	7.234	7.354	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	8.532	8.538	8.478	8.598	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	8.538	8.538	8.478	8.598	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	8.538	8.538	8.478	8.598	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	7.294	7.294	7.234	7.354	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	8.532	8.538	8.478	8.598	126419403	1122298

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1122298	124	127	150	56.0 - 112	82.7	84.7	ug/L	2.39	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	624841	CCV	49000	50000	ug/L	98.0	50.0 - 130	126419397
4-Nonylphenol-SURR	624841	CCV	50600	50000	ug/L	101	50.0 - 130	126419405
4-Nonylphenol-SURR	1122298	Blank	21600	25000	ug/L	86.4	50.0 - 130	126419398
4-Nonylphenol-SURR	1122298	LCS	22400	25000	ug/L	89.6	50.0 - 130	126419399
4-Nonylphenol-SURR	1122298	LCS Dup	23800	25000	ug/L	95.2	50.0 - 130	126419400
4-Nonylphenol-SURR	2302895	Unknown	24.8	28.0	ug/L	88.6	50.0 - 130	126419403

Analytical Set

1124511

EPA 625.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1121954	ND	1.03	1.03	ug/L	126461237
1,2,4-Trichlorobenzene	1121954	ND	0.941	1.00	ug/L	126461237
1,2-Dichlorobenzene	1121954	ND	1.04	5.00	ug/L	126461237
1,2-DPH (as azobenzene)	1121954	ND	0.238	1.00	ug/L	126461237
1,3-Dichlorobenzene	1121954	ND	0.954	5.00	ug/L	126461237
1,4-Dichlorobenzene	1121954	ND	1.01	5.00	ug/L	126461237
2,4,5-Trichlorophenol	1121954	ND	0.961	5.00	ug/L	126461237

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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
2,4,6-Trichlorophenol	1121954	ND	1.24	2.00	ug/L	126461237
2,4-Dichlorophenol	1121954	ND	0.222	1.00	ug/L	126461237
2,4-Dimethylphenol	1121954	ND	0.536	1.00	ug/L	126461237
2,4-Dinitrophenol	1121954	ND	1.34	2.00	ug/L	126461237
2,4-Dinitrotoluene	1121954	ND	1.35	2.00	ug/L	126461237
2,6-Dinitrotoluene	1121954	ND	1.29	2.00	ug/L	126461237
2-Chloronaphthalene	1121954	ND	0.150	1.00	ug/L	126461237
2-Chlorophenol	1121954	ND	0.275	1.00	ug/L	126461237
2-Methylphenol (o-Cresol)	1121954	ND	8.48	10.0	ug/L	126461237
2-Nitrophenol	1121954	ND	0.554	1.00	ug/L	126461237
3&4-Methylphenol (m&p-Cresol)	1121954	ND	7.78	8.00	ug/L	126461237
3,3'-Dichlorobenzidine	1121954	ND	1.39	2.00	ug/L	126461237
4,6-Dinitro-2-methylphenol	1121954	ND	1.15	2.00	ug/L	126461237
4-Bromophenyl phenyl ether	1121954	ND	0.772	1.00	ug/L	126461237
4-Chlorophenyl phenyl ethe	1121954	ND	0.202	1.00	ug/L	126461237
4-Nitrophenol	1121954	ND	0.789	1.00	ug/L	126461237
Acenaphthene	1121954	ND	0.177	1.00	ug/L	126461237
Acenaphthylene	1121954	ND	0.240	1.00	ug/L	126461237
Aniline	1121954	ND	2470	2470	ug/L	126461237
Anthracene	1121954	ND	0.241	1.00	ug/L	126461237
Benzidine	1121954	ND	1.40	1.50	ug/L	126461237
Benzo(a)anthracene	1121954	ND	0.225	1.00	ug/L	126461237
Benzo(a)pyrene	1121954	ND	0.900	1.00	ug/L	126461237
Benzo(b)fluoranthene	1121954	ND	0.547	1.00	ug/L	126461237
Benzo(ghi)perylene	1121954	ND	0.881	1.00	ug/L	126461237
Benzo(k)fluoranthene	1121954	ND	0.252	1.00	ug/L	126461237
Benzyl Butyl phthalate	1121954	0.370	0.204	7.50	ug/L	126461237
Bis(2-chloroethoxy)methane	1121954	ND	0.277	1.00	ug/L	126461237
Bis(2-chloroethyl)ether	1121954	ND	0.348	1.00	ug/L	126461237
Bis(2-chloroisopropyl)ether	1121954	ND	0.738	1.00	ug/L	126461237
Bis(2-ethylhexyl)phthalate	1121954	ND	1.12	7.50	ug/L	126461237
Chrysene (Benzo(a)phenanthrene)	1121954	ND	0.289	1.00	ug/L	126461237
Dibenz(a,h)anthracene	1121954	ND	0.689	1.00	ug/L	126461237
Diethyl phthalate	1121954	ND	0.253	5.70	ug/L	126461237
Dimethyl phthalate	1121954	ND	0.540	4.80	ug/L	126461237
Di-n-butylphthalate	1121954	ND	0.978	7.50	ug/L	126461237
Di-n-octylphthalate	1121954	ND	1.92	2.00	ug/L	126461237
Fluoranthene(Benzo(j,k)fluorene)	1121954	ND	0.318	1.00	ug/L	126461237
Fluorene	1121954	ND	0.275	1.00	ug/L	126461237
Hexachlorobenzene	1121954	ND	0.871	1.00	ug/L	126461237
Hexachlorobutadiene	1121954	ND	1.03	1.03	ug/L	126461237
Hexachlorocyclopentadiene	1121954	ND	0.536	1.00	ug/L	126461237
Hexachloroethane	1121954	ND	1.05	2.00	ug/L	126461237
Indeno(1,2,3-cd)pyrene	1121954	ND	0.596	1.00	ug/L	126461237
Isophorone	1121954	ND	0.429	1.00	ug/L	126461237

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SPAC-R

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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Naphthalene	1121954	ND	0.225	1.00	ug/L	126461237
Nitrobenzene	1121954	ND	0.271	1.00	ug/L	126461237
n-Nitrosodiethylamine	1121954	ND	0.747	1.00	ug/L	126461237
N-Nitrosodimethylamine	1121954	ND	0.542	1.00	ug/L	126461237
n-Nitroso-di-n-butylamine	1121954	ND	0.210	1.00	ug/L	126461237
N-Nitrosodi-n-propylamine	1121954	ND	0.425	1.00	ug/L	126461237
N-Nitrosodiphenylamine (as DPA)	1121954	ND	0.404	1.00	ug/L	126461237
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	ND	0.588	1.00	ug/L	126461237
Pentachlorobenzene	1121954	ND	0.977	1.00	ug/L	126461237
Pentachlorophenol	1121954	ND	0.960	5.00	ug/L	126461237
Phenanthrene	1121954	ND	0.269	1.00	ug/L	126461237
Phenol	1121954	ND	0.332	1.00	ug/L	126461237
Pyrene	1121954	ND	0.291	1.00	ug/L	126461237
Pyridine	1121954	ND	1.35	1.35	ug/L	126461237

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
1,2,4,5-Tetrachlorobenzene	48200	50000	ug/L	96.4	60.0 - 140	126461236
1,2,4-Trichlorobenzene	48600	50000	ug/L	97.2	61.0 - 130	126461236
1,2-Dichlorobenzene	47800	50000	ug/L	95.6	60.0 - 140	126461236
1,2-DPH (as azobenzene)	53400	50000	ug/L	107	60.0 - 140	126461236
1,3-Dichlorobenzene	43700	50000	ug/L	87.4	60.0 - 140	126461236
1,4-Dichlorobenzene	42500	50000	ug/L	85.0	60.0 - 140	126461236
2,4,5-Trichlorophenol	49400	50000	ug/L	98.8	69.0 - 130	126461236
2,4,6-Trichlorophenol	46000	50000	ug/L	92.0	69.0 - 130	126461236
2,4-Dichlorophenol	44700	50000	ug/L	89.4	64.0 - 130	126461236
2,4-Dimethylphenol	42200	50000	ug/L	84.4	58.0 - 130	126461236
2,4-Dinitrophenol	45400	50000	ug/L	90.8	39.0 - 173	126461236
2,4-Dinitrotoluene	50900	50000	ug/L	102	53.0 - 130	126461236
2,6-Dinitrotoluene	52000	50000	ug/L	104	68.0 - 137	126461236
2-Chloronaphthalene	41500	50000	ug/L	83.0	70.0 - 130	126461236
2-Chlorophenol	43300	50000	ug/L	86.6	55.0 - 130	126461236
2-Methylphenol (o-Cresol)	37700	50000	ug/L	75.4	60.0 - 140	126461236
2-Nitrophenol	46200	50000	ug/L	92.4	61.0 - 163	126461236
3&4-Methylphenol (m&p-Cresol)	38700	50000	ug/L	77.4	60.0 - 140	126461236
3,3'-Dichlorobenzidine	60900	50000	ug/L	122	18.0 - 213	126461236
4,6-Dinitro-2-methylphenol	47400	50000	ug/L	94.8	56.0 - 130	126461236
4-Bromophenyl phenyl ether	49400	50000	ug/L	98.8	70.0 - 130	126461236
4-Chlorophenyl phenyl ethe	46500	50000	ug/L	93.0	57.0 - 145	126461236
4-Nitrophenol	46000	50000	ug/L	92.0	35.0 - 135	126461236
Acenaphthene	50100	50000	ug/L	100	70.0 - 130	126461236
Acenaphthylene	50000	50000	ug/L	100	60.0 - 130	126461236
Aniline	39000	50000	ug/L	78.0	60.0 - 140	126461236
Anthracene	50700	50000	ug/L	101	58.0 - 130	126461236
Benzidine	27600	50000	ug/L	55.2	20.0 - 180	126461236

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Benzo(a)anthracene	50000	50000	ug/L	100	42.0 - 133	126461236
Benzo(a)pyrene	52000	50000	ug/L	104	32.0 - 148	126461236
Benzo(b)fluoranthene	47300	50000	ug/L	94.6	42.0 - 140	126461236
Benzo(ghi)perylene	50600	50000	ug/L	101	13.0 - 195	126461236
Benzo(k)fluoranthene	52400	50000	ug/L	105	25.0 - 146	126461236
BenzyI Butyl phthalate	51600	50000	ug/L	103	43.0 - 140	126461236
Bis(2-chloroethoxy)methane	49600	50000	ug/L	99.2	52.0 - 164	126461236
Bis(2-chloroethyl)ether	44400	50000	ug/L	88.8	52.0 - 130	126461236
Bis(2-chloroisopropyl)ether	47500	50000	ug/L	95.0	63.0 - 139	126461236
Bis(2-ethylhexyl)phthalate	44600	50000	ug/L	89.2	43.0 - 137	126461236
Chrysene (Benzo(a)phenanthrene)	49100	50000	ug/L	98.2	44.0 - 140	126461236
Dibenz(a,h)anthracene	55000	50000	ug/L	110	13.0 - 200	126461236
Diethyl phthalate	50000	50000	ug/L	100	47.0 - 130	126461236
Dimethyl phthalate	51200	50000	ug/L	102	50.0 - 130	126461236
Di-n-butylphthalate	48900	50000	ug/L	97.8	52.0 - 130	126461236
Di-n-octylphthalate	48600	50000	ug/L	97.2	21.0 - 132	126461236
Fluoranthene(Benzo(j,k)fluorene)	49000	50000	ug/L	98.0	47.0 - 130	126461236
Fluorene	49100	50000	ug/L	98.2	70.0 - 130	126461236
Hexachlorobenzene	50400	50000	ug/L	101	38.0 - 142	126461236
Hexachlorobutadiene	45900	50000	ug/L	91.8	68.0 - 130	126461236
Hexachlorocyclopentadiene	43600	50000	ug/L	87.2	60.0 - 140	126461236
Hexachloroethane	45100	50000	ug/L	90.2	55.0 - 130	126461236
Indeno(1,2,3-cd)pyrene	46000	50000	ug/L	92.0	13.0 - 151	126461236
Isophorone	56000	50000	ug/L	112	52.0 - 180	126461236
Naphthalene	47000	50000	ug/L	94.0	70.0 - 130	126461236
Nitrobenzene	40000	50000	ug/L	80.0	54.0 - 158	126461236
n-Nitrosodiethylamine	77500	50000	ug/L	155	60.0 - 140	* 126461236
N-Nitrosodimethylamine	42400	50000	ug/L	84.8	60.0 - 140	126461236
n-Nitroso-di-n-butylamine	46600	50000	ug/L	93.2	60.0 - 140	126461236
N-Nitrosodi-n-propylamine	47900	50000	ug/L	95.8	59.0 - 170	126461236
N-Nitrosodiphenylamine (as DPA)	43500	50000	ug/L	87.0	60.0 - 140	126461236
p-Chloro-m-Cresol (4-Chloro-3-me	43800	50000	ug/L	87.6	68.0 - 130	126461236
Pentachlorobenzene	45500	50000	ug/L	91.0	60.0 - 140	126461236
Pentachlorophenol	46600	50000	ug/L	93.2	42.0 - 152	126461236
Phenanthrene	45600	50000	ug/L	91.2	67.0 - 130	126461236
Phenol	38600	50000	ug/L	77.2	48.0 - 130	126461236
Pyrene	47400	50000	ug/L	94.8	70.0 - 130	126461236
Pyridine	42800	50000	ug/L	85.6	60.0 - 140	126461236

DFTPP

<u>Parameter</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>	
DFTPP Mass 127	625102	198	57901	52.8	40.0 - 60.0	126461234
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126461234
DFTPP Mass 198	625102	198	109643	100.0	100 - 100	126461234
DFTPP Mass 199	625102	198	7184	6.6	5.00 - 9.00	126461234

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 275	625102	198	32486	29.6	10.0 - 30.0	126461234
DFTPP Mass 365	625102	198	7319	6.7	1.00 - 100	126461234
DFTPP Mass 441	625102	443	3494	16.8	0 - 100	126461234
DFTPP Mass 442	625102	198	107965	98.5	40.0 - 100	126461234
DFTPP Mass 443	625102	442	20743	19.2	17.0 - 23.0	126461234
DFTPP Mass 51	625102	198	35046	32.0	30.0 - 60.0	126461234
DFTPP Mass 68	625102	69.0	0	0.0	0 - 2.00	126461234
DFTPP Mass 69	625102	198	37536	34.2	0 - 100	126461234
DFTPP Mass 70	625102	69.0	0	0.0	0 - 2.00	126461234

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1121954	10.7	10.2	12.5	27.5 - 85.5	85.6 *	81.6	ug/L	4.78	50.0
1,2,4-Trichlorobenzene	1121954	11.3	9.13	12.5	44.0 - 142	90.4	73.0	ug/L	21.3	50.0
1,2-Dichlorobenzene	1121954	10.1	9.32	12.5	23.0 - 81.8	80.8	74.6	ug/L	7.98	50.0
1,2-DPH (as azobenzene)	1121954	11.9	10.2	12.5	12.6 - 110	95.2	81.6	ug/L	15.4	50.0
1,3-Dichlorobenzene	1121954	10.6	9.26	12.5	21.1 - 80.5	84.8 *	74.1	ug/L	13.5	50.0
1,4-Dichlorobenzene	1121954	10.4	8.53	12.5	21.4 - 76.9	83.2 *	68.2	ug/L	19.8	50.0
2,4,5-Trichlorophenol	1121954	12.7	11.5	12.5	51.3 - 109	102	92.0	ug/L	10.3	50.0
2,4,6-Trichlorophenol	1121954	12.7	11.6	12.5	37.0 - 144	102	92.8	ug/L	9.45	58.0
2,4-Dichlorophenol	1121954	10.8	9.67	12.5	39.0 - 135	86.4	77.4	ug/L	11.0	50.0
2,4-Dimethylphenol	1121954	1.29	1.02	12.5	23.0 - 120	10.3 *	8.16 *	ug/L	23.2	68.0
2,4-Dinitrophenol	1121954	11.1	13.4	12.5	0.100 - 191	88.8	107	ug/L	18.6	132
2,4-Dinitrotoluene	1121954	10.7	12.6	12.5	39.0 - 139	85.6	101	ug/L	16.5	42.0
2,6-Dinitrotoluene	1121954	10.8	12.4	12.5	50.0 - 158	86.4	99.2	ug/L	13.8	48.0
2-Chloronaphthalene	1121954	12.3	9.87	12.5	60.0 - 120	98.4	79.0	ug/L	21.9	24.0
2-Chlorophenol	1121954	11.0	10.1	12.5	23.0 - 134	88.0	80.8	ug/L	8.53	61.0
2-Methylphenol (o-Cresol)	1121954	7.81	7.89	12.5	38.9 - 76.1	62.5	63.1	ug/L	0.955	50.0
2-Nitrophenol	1121954	12.2	10.2	12.5	29.0 - 182	97.6	81.6	ug/L	17.9	55.0
3&4-Methylphenol (m&p-Cresol)	1121954	6.93	6.20	12.5	33.0 - 70.4	55.4	49.6	ug/L	11.0	50.0
3,3'-Dichlorobenzidine	1121954	9.98	8.09	12.5	0.100 - 262	79.8	64.7	ug/L	20.9	108
4,6-Dinitro-2-methylphenol	1121954	10.7	10.6	12.5	0.100 - 181	85.6	84.8	ug/L	0.939	203
4-Bromophenyl phenyl ether	1121954	12.6	11.3	12.5	53.0 - 127	101	90.4	ug/L	11.1	43.0
4-Chlorophenyl phenyl ether	1121954	10.8	11.4	12.5	25.0 - 158	86.4	91.2	ug/L	5.41	61.0
4-Nitrophenol	1121954	3.82	5.60	12.5	0.100 - 132	30.6	44.8	ug/L	37.7	131
Acenaphthene	1121954	12.1	12.3	12.5	47.0 - 145	96.8	98.4	ug/L	1.64	48.0
Acenaphthylene	1121954	11.6	10.7	12.5	33.0 - 145	92.8	85.6	ug/L	8.07	74.0
Aniline	1121954	7890	7210	12500	70.0 - 130	63.1 *	57.7 *	ug/L	8.94	50.0
Anthracene	1121954	12.4	10.5	12.5	27.0 - 133	99.2	84.0	ug/L	16.6	66.0
Benzo(a)anthracene	1121954	11.1	10.5	12.5	33.0 - 143	88.8	84.0	ug/L	5.56	53.0
Benzo(a)pyrene	1121954	11.4	10.9	12.5	17.0 - 163	91.2	87.2	ug/L	4.48	72.0
Benzo(b)fluoranthene	1121954	10.3	10.4	12.5	24.0 - 159	82.4	83.2	ug/L	0.966	71.0
Benzo(ghi)perylene	1121954	12.3	11.1	12.5	0.100 - 219	98.4	88.8	ug/L	10.3	97.0
Benzo(k)fluoranthene	1121954	12.4	12.2	12.5	11.0 - 162	99.2	97.6	ug/L	1.63	63.0
Benzyl Butyl phthalate	1121954	11.8	10.8	12.5	0.100 - 152	94.4	86.4	ug/L	8.85	60.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bis(2-chloroethoxy)methane	1121954	12.5	10.6	12.5	33.0 - 184	100	84.8	ug/L	16.5	54.0
Bis(2-chloroethyl)ether	1121954	11.9	10.2	12.5	12.0 - 158	95.2	81.6	ug/L	15.4	108
Bis(2-chloroisopropyl)ether	1121954	11.9	12.6	12.5	36.0 - 166	95.2	101	ug/L	5.91	76.0
Bis(2-ethylhexyl)phthalate	1121954	12.5	12.6	12.5	8.00 - 158	100	101	ug/L	0.995	82.0
Chrysene (Benzo(a)phenanthrene)	1121954	11.5	9.88	12.5	17.0 - 168	92.0	79.0	ug/L	15.2	87.0
Dibenz(a,h)anthracene	1121954	12.0	10.7	12.5	0.100 - 227	96.0	85.6	ug/L	11.5	126
Diethyl phthalate	1121954	12.2	12.1	12.5	0.100 - 120	97.6	96.8	ug/L	0.823	100
Dimethyl phthalate	1121954	11.4	11.8	12.5	0.100 - 120	91.2	94.4	ug/L	3.45	183
Di-n-butylphthalate	1121954	13.1	11.0	12.5	1.00 - 120	105	88.0	ug/L	17.6	47.0
Di-n-octylphthalate	1121954	11.2	11.2	12.5	4.00 - 146	89.6	89.6	ug/L	0	69.0
Fluoranthene(Benzo(j,k)fluorene)	1121954	12.9	12.4	12.5	26.0 - 137	103	99.2	ug/L	3.76	66.0
Fluorene	1121954	11.5	12.3	12.5	59.0 - 121	92.0	98.4	ug/L	6.72	38.0
Hexachlorobenzene	1121954	12.2	10.9	12.5	0.100 - 152	97.6	87.2	ug/L	11.3	55.0
Hexachlorobutadiene	1121954	10.6	7.47	12.5	24.0 - 120	84.8	59.8	ug/L	34.6	62.0
Hexachlorocyclopentadiene	1121954	7.27	7.00	12.5	3.97 - 68.7	58.2	56.0	ug/L	3.85	50.0
Hexachloroethane	1121954	9.64	7.78	12.5	40.0 - 120	77.1	62.2	ug/L	21.4	52.0
Indeno(1,2,3-cd)pyrene	1121954	12.2	10.6	12.5	0.100 - 171	97.6	84.8	ug/L	14.0	99.0
Isophorone	1121954	12.0	11.1	12.5	21.0 - 196	96.0	88.8	ug/L	7.79	93.0
Naphthalene	1121954	10.6	9.59	12.5	21.0 - 133	84.8	76.7	ug/L	10.0	65.0
Nitrobenzene	1121954	10.9	8.82	12.5	35.0 - 180	87.2	70.6	ug/L	21.0	62.0
n-Nitrosodiethylamine	1121954	23.7	20.1	12.5	18.0 - 100	190 *	161 *	ug/L	16.5	50.0
N-Nitrosodimethylamine	1121954	7.94	7.85	12.5	30.2 - 74.9	63.5	62.8	ug/L	1.11	50.0
n-Nitroso-di-n-butylamine	1121954	11.1	12.2	12.5	48.4 - 98.5	88.8	97.6	ug/L	9.44	50.0
N-Nitrosodi-n-propylamine	1121954	12.4	10.7	12.5	0.100 - 230	99.2	85.6	ug/L	14.7	87.0
N-Nitrosodiphenylamine (as DPA)	1121954	10.8	9.96	12.5	49.3 - 94.2	86.4	79.7	ug/L	8.07	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	9.94	11.8	12.5	22.0 - 147	79.5	94.4	ug/L	17.1	70.0
Pentachlorobenzene	1121954	9.99	10.6	12.5	39.3 - 93.7	79.9	84.8	ug/L	5.95	50.0
Pentachlorophenol	1121954	11.4	11.9	12.5	14.0 - 176	91.2	95.2	ug/L	4.29	86.0
Phenanthrene	1121954	12.0	11.4	12.5	54.0 - 120	96.0	91.2	ug/L	5.13	39.0
Phenol	1121954	5.05	4.83	12.5	5.00 - 120	40.4	38.6	ug/L	4.56	64.0
Pyrene	1121954	10.5	10.5	12.5	52.0 - 120	84.0	84.0	ug/L	0	49.0
Pyridine	1121954	6.50	5.82	12.5	11.2 - 50.6	52.0 *	46.6	ug/L	11.0	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126461236
2-Fluorophenol-SURR	625306	CCV	39200	100000	ug/L	39.2	10.0 - 150	126461236
4-Terphenyl-d14-SURR	625306	CCV	40600	50000	ug/L	81.2	30.0 - 150	126461236
Nitrobenzene-d5-SURR	625306	CCV	43500	50000	ug/L	87.0	30.0 - 150	126461236
Phenol-d6-SURR	625306	CCV	44100	100000	ug/L	44.1	10.0 - 150	126461236
2,4,6-Tribromophenol	1121954	Blank	66.8	100	ug/L	66.8	10.0 - 150	126461237
2,4,6-Tribromophenol	1121954	LCS	61.8	100	ug/L	61.8	10.0 - 150	126461238
2,4,6-Tribromophenol	1121954	LCS Dup	64.6	100	ug/L	64.6	10.0 - 150	126461239
2-Fluorophenol-SURR	1121954	Blank	31400	100000	ug/L	31.4	10.0 - 150	126461237
2-Fluorophenol-SURR	1121954	LCS	36400	100000	ug/L	36.4	10.0 - 150	126461238

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2-Fluorophenol-SURR	1121954	LCS Dup	33800	100000	ug/L	33.8	10.0 - 150	126461239
4-Terphenyl-d14-SURR	1121954	Blank	35400	50000	ug/L	70.8	30.0 - 150	126461237
4-Terphenyl-d14-SURR	1121954	LCS	19500	50000	ug/L	39.0	30.0 - 150	126461238
4-Terphenyl-d14-SURR	1121954	LCS Dup	19500	50000	ug/L	39.0	30.0 - 150	126461239
Nitrobenzene-d5-SURR	1121954	Blank	43700	50000	ug/L	87.4	30.0 - 150	126461237
Nitrobenzene-d5-SURR	1121954	LCS	20900	50000	ug/L	41.8	30.0 - 150	126461238
Nitrobenzene-d5-SURR	1121954	LCS Dup	17300	50000	ug/L	34.6	30.0 - 150	126461239
Phenol-d6-SURR	1121954	Blank	27800	100000	ug/L	27.8	10.0 - 150	126461237
Phenol-d6-SURR	1121954	LCS	25900	100000	ug/L	25.9	10.0 - 150	126461238
Phenol-d6-SURR	1121954	LCS Dup	24500	100000	ug/L	24.5	10.0 - 150	126461239
2,4,6-Tribromophenol	2302895	Unknown	76.1	98.8	ug/L	77.0	10.0 - 150	126461243
2-Fluorophenol-SURR	2302895	Unknown	41.1	98.8	ug/L	41.6	10.0 - 150	126461243
4-Terphenyl-d14-SURR	2302895	Unknown	35.3	49.4	ug/L	71.5	30.0 - 150	126461243
Nitrobenzene-d5-SURR	2302895	Unknown	36.1	49.4	ug/L	73.1	30.0 - 150	126461243
Phenol-d6-SURR	2302895	Unknown	28.9	98.8	ug/L	29.3	10.0 - 150	126461243

Analytical Set

1121775

SM 5220 D-2011

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chemical Oxygen Demand	422	400	mg/L	106	90.0 - 110	126389115

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Chemical Oxygen Demand	2302625	ND	ND	mg/L		20.0
Chemical Oxygen Demand	2303054	32.7	30.5	mg/L	6.96	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Chemical Oxygen Demand	1121775	203	200	mg/L	102	90.0 - 110	126389116

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Chemical Oxygen Demand	2302625	238	ND	220	mg/L	108	80.0 - 120	126389119
Chemical Oxygen Demand	2303054	253	30.5	220	mg/L	101	80.0 - 120	126389128

Analytical Set

1121996

SM 4500-P E-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.0662	0.060	mg/L	110	70.0 - 130	126393751

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Phosphorus (as P), total	1121996	ND	0.00311	0.00311	mg/L	126393749

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.312	0.300	mg/L	104	90.0 - 110	126393752
Phosphorus (as P), total	0.306	0.300	mg/L	102	90.0 - 110	126393767
Phosphorus (as P), total	0.309	0.300	mg/L	103	90.0 - 110	126394129

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Phosphorus (as P), total	1121996	0.307	0.299	0.300	80.0 - 120	102	99.7	mg/L	2.64	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Phosphorus (as P), total	2302930	0.265	0.257	0.120	0.150	70.0 - 130	96.7	91.3	mg/L	5.67	20.0
Phosphorus (as P), total	2302931	0.345	0.331	0.191	0.150	70.0 - 130	103	93.3	mg/L	9.52	20.0

Analytical Set **1122797**

SM 2320 B-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Alkalinity (as CaCO3)	1122797	ND	1.00	1.00	mg/L	126418426

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Alkalinity (as CaCO3)	24.5	25.0	mg/L	98.0	90.0 - 110	126418425
Total Alkalinity (as CaCO3)	25.4	25.0	mg/L	102	90.0 - 110	126418438

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Alkalinity (as CaCO3)	2302842	785	789	mg/L	0.508	20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126418424

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Total Alkalinity (as CaCO3)	2302842	819	789	25.0	mg/L	120	70.0 - 130	126418429

Analytical Set **1123697**

SM 2130 B-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0

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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r_1-r_2) / \text{mean}(r_1,r_2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



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CHAIN OF CUSTODY

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SPACE X
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Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
188

Lab Number 2302893
PO Number 2605353
Phone 956/543-6688
Mandatory

Effluent

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zachary Smith
Sampler Affiliation: Space X
Sampler Signature: Zachary Smith

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

0 On Site Testing

pH CI pH Client Provided SM 4500-H+ B-2011

pH Client Provided

Collected By TS Date 5/29/24 Time 0830 Analyzed By TS Date 5/29/24 Time 0830

Results 7.51 Units SV Temp. 28.1 °C Duplicate 7.51 Units SV Temp. 28.1 °C

1 Polyethylene 1/2 gal (White)

NELAC Short Hold BODc BOD Carbonaceous SM 5210 B-2016 (TCMP Inhibitor) (2.00 days)



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SPACEX
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 Brownsville, TX 78521

SPAC-R
188

Mandatory
 Phone 956/543-6688

1 Polyethylene Quart

NELAC Short Hold TURB Turbidity SM 2130 B-2011 (2.00 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: Zachary Smith Affiliation: SPACEX Signature: [Signature]	5/29 0932	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]
5/29/24 9:32	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]	5/29/24 9:32	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]
5/29/24 17:31	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]	5/29/24 17:30	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx
5/30/24 1110	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx	5-30-24 1110	Printed Name: Andy Owens - SPL, Inc. Affiliation: [Affiliation] Signature: [Signature]

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No IF Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAC, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Comments



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SPACE X
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1 Rocket Rd
Brownsville, TX 78521

SPAC-R
178

Lab Number 2302894
Mandatory 2605353
PO Number 2605353
Phone 956/543-6688

INFLUENT

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zochacz, SM
Sampler Affiliation: SPACE X
Sampler Signature: [Signature]

Samples Radioactive? Samples Contain Dioxin? Samples Biological Hazard?

Polyethylene 1/2 gal (White)

NELAC Short Hold BOD Biochemical Oxygen Demand (BOD5) SM 5210 B-2016 CAS:1026-3 (2.04 days)

H2SO4 to pH < 2 250 ml Polyethylene

NELAC NH4N Ammonia Nitrogen EPA 350.1 2 (28.0 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: <u>Zochacz, SM</u> Signature: <u>[Signature]</u> Affiliation: <u>SPACE X</u>	06/29 0903	Printed Name: <u>Leo Munoz</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>
5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>	5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>
5/29/24 12:30	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>	5/29/24 12:13	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>FedEx</u>
5/30/24 1110	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>FedEx</u>	5/30/24 1110	Printed Name: <u>Andy Owens - SPL, Inc.</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>



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SPACE X
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Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

**SPAC-R
194**

Lab Number 2302895
PO Number _____ Mandatory
Phone 956/543-6688

Waste Water

Retention Pond

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5.28.24 Time: 3:50 PM

Sampler Printed Name: CAROLYN WOOD

Sampler Affiliation: SPACE X

Sampler Signature: Carolyn A. Wood

Sample Radioactive?

Sample Contains Dioxin?

Sample Biological Hazard?

On Site Testing

NELAC C20 C12 Res., Total(Onsite)Spec Mid SM 4500-CI G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

*by client
Total C12
0.2 mg/L*

~~C12~~ Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

NELAC Short Hold Cr6 Hex Cr. Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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**SPAC-R
194**

Hex Cr, Field Preservation

Collected By CW Date 5-28-24 Time 3:57p Analyzed By Jmz Date 5/28/24 Time 18:40

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

NELAC Short Hold pH pH (Onsite) SM 4500-H - B-2011 (0.0104 days)

pH (Onsite)

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

*by client
pH 6.97*

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

S2C2 Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QC R1 _____ QC R2 _____

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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SPAC-R
194

Temperature (conts)

Collected By CW Date 5.25.24 Time 3:52p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Duplicate _____ Units _____

2 Amber Glass Qt w/Teflon lined lid			
NELAC	ID25	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	IPCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)
2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid			
NELAC	Short Hold	SAAB Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
2 H2SO4 to pH <2 GIQt w/Tef-lined lid			
	NYPB	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
1 H2SO4 to pH <2 GIQt w/Tef-lined lid			
NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
1 Polyethylene 1/2 gal (White)			
NELAC	Short Hold	BOD Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC	Short Hold	BODc BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC		TSS Total Suspended Solids	SM 2540 D-2015 (7.00 days)
0 Z - No bottle required			
	CKLM	Check Limits	
NELAC	Short Hold	Cr+3 Trivalent Chromium	Calculation CAS:16065-R3-1 (1.00 days)
1 HNO3 to pH <2 Polyethylene 500 mL for Metals			
NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



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NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold **ID2V** Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	ODD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH4N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TFWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mL w/Teflon lined lid

NELAC **TOCL** Total Organic Carbon SM 5310 C-2014 (28.0 days)



RGV Region: 2401 Village Dr. Suite C Brownsville TX 78521

2600 Dudley Rd. Kilgore, Texas 75662
Office: 903-984-0551 * Fax: 903-984-5914



CHAIN OF CUSTODY

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Space Exploration Technologies
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Brownsville, TX 78521

**SPAC-R
194**

2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN-A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CNCl	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	ICL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	IFL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	INL	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	ISL	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AKT	Total Alkalinity (as CaCO3)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Released		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
5-28-24	6:20 pm	Carolyn Wood	SPACE	[Signature]	SPL
5/29/24	17:20	[Signature]	SPL	FedEx	
		[Signature]	FedEx		



1
2
3
4

1105141 CoC Print Group 001 of 001

ORIGIN ID: HRLA
ANA LAB / REV
2401 VILLAGE DR ST
BROWNSVILLE, TX 77801
UNITED STATES US

SHIP DATE: 28MAY24
ACTWT: 70.05 LB
CAD: 6894257/SSFE2500
DIMS: 24x14x13 IN
BILL THIRD PARTY

TO SPL
LOGIN
2600 DUDLE RD
KILGORE TX 75662
(565) 565-5665

SHIP DATE: 28MAY24
ACTWT: 70.05 LB
CAD: 6894257/SSFE2500
DIMS: 24x14x13 IN
BILL THIRD PARTY

Part # 150297-235-RR03-EXS 12/24

FedEx
Express
E

3 of 3
MPS# 2752 6939 0395
Matr# 8171 8103 060

THU - 30 MAY 10:30A
PRIORITY OVERNIGHT
AHS
75662
SHV

XS GOGA

Date: 5/30 Time: 11:0 Tech: ANU
Temp: 1.3 1.4 c

Therm#: 6443 Corr Fact: 0.1 C

Project
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SPAC-R

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1 Rocket Rd
Brownsville, TX 78521

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16:57

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1106094_r03_03_ProjectResults	SPL Kilgore Project P:1106094 C:SPAC Project Results t:304 PO: 2305623-5	13
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Project
1106094

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
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- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
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- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	32	1123138	06/10/2024	1123853	06/13/2024
EPA 300.0 2.1	01	1123092	06/07/2024	1123092	06/07/2024
EPA 300.0 2.1	01	1124447	06/18/2024	1124447	06/18/2024
EPA 625.1	33	1123370	06/11/2024	1125008	06/18/2024

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- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	19	1123033	06/07/2024	1123033	06/07/2024
EPA 624.1	16	1123030	06/07/2024	1123030	06/07/2024
ASTM D7065-11	34	1124341	06/17/2024	1124948	06/19/2024
EPA 200.8 5.4	32	1123138	06/10/2024	1123222	06/10/2024

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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	31	1123060	06/10/2024	1123439	06/11/2024
EPA 200.7 4.4	31	1123060	06/10/2024	1123677	06/12/2024
EPA 245.1 3	30	1123013	06/10/2024	1123073	06/10/2024
EPA 200.8 5.4	31	1123060	06/10/2024	1124795	06/19/2024

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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

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- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2320 B-2011	01	1123173	06/10/2024	1123173	06/10/2024
SM 5210 B-2016	01	1122943	06/13/2024	1122943	06/13/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1122944	06/13/2024	1122944	06/13/2024
SM 4500-CN ⁻ G-2016			06/19/2024		06/19/2024

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- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016	21	1122879	06/07/2024	1123107	06/10/2024
SM 4500-CN ⁻ E-2016	20	1122859	06/07/2024	1123105	06/10/2024
SM 5220 D-2011	14	1123591	06/12/2024	1123591	06/12/2024
SM 4500-CI G-2011		1122809	06/06/2024	1122809	06/06/2024

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- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/19/2024		06/19/2024
SM 3500-Cr B-2011	12	1122852	06/07/2024	1122852	06/07/2024
SM 3500-Cr B-2011		1122789	06/06/2024	1122789	06/06/2024
SM 4500-O G-2016		1122811	06/06/2024	1122811	06/06/2024

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SAMPLE CROSS REFERENCE

Project
1106094

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
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- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	29	1123008	06/10/2024	1124055	06/14/2024
EPA 351.2 minus EPA 350.1			06/19/2024		06/19/2024
SM 2540 C-2015	01	1123493	06/11/2024	1123493	06/11/2024
EPA 351.2 2	28	1122995	06/10/2024	1123329	06/11/2024

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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

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- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
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- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
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- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	09	1124581	06/18/2024	1124581	06/18/2024
SM 4500-P E-2011	13	1123135	06/10/2024	1123135	06/10/2024
SM 2540 D-2015	01	1123475	06/11/2024	1123475	06/11/2024
SM 2130 B-2011	02	1123697	06/11/2024	1123697	06/11/2024

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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
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- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
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- Bottle 13 8 oz Plastic H2SO4 pH < 2
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- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
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- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2550 B - 2010		1123056	06/06/2024	1123056	06/06/2024
EPA 1664B	05	1123989	06/14/2024	1123989	06/14/2024
SM 4500-H+ B-2011		1122812	06/06/2024	1122812	06/06/2024

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SPAC-R

SPACEEX
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 1 Rocket Rd
 Brownsville, TX 78521

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RESULTS

Sample Results

2305623	WW - Retention Pond	Received:	06/07/2024
Non-Potable Water	Collected by: Client	SPACEEX	PO:
	Taken: 06/06/2024	13:30:00	2305623-5
Prepared: 06/24/2024 15:50:00 Analyzed 06/24/2024 15:50:00 WJP			
Parameter	Results	Units	RL
Check Limits	Completed		
Prepared: 1122810 06/06/2024 13:30:00 Analyzed 1122810 06/06/2024 13:30:00 RDL			
Parameter	Results	Units	RL
Field Cl2 Check for CNa	NEG		
Prepared: 1122813 06/06/2024 13:30:00 Analyzed 1122813 06/06/2024 13:30:00 RDL			
Parameter	Results	Units	RL
Field Sulfide Check for CNa	NEG	mg/L	
ASTM D7065-11 Prepared: 1124341 06/17/2024 14:40:00 Analyzed 1124948 06/19/2024 19:32:00 DWL			
Parameter	Results	Units	RL
Nonylphenol	<34.8	ug/L	34.8
			SD
			25154-52-3
			34
Calculation Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL			
Parameter	Results	Units	RL
Trivalent Chromium	<0.003	mg/L	0.003
			16065-83-1
EPA 1664B Prepared: 1123989 06/14/2024 11:25:00 Analyzed 1123989 06/14/2024 11:25:00 RC1			
Parameter	Results	Units	RL
Oil and Grease (HEM)	<4.60	mg/L	4.60
			05
EPA 200.7 4.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI			
Parameter	Results	Units	RL
Calcium	72.7	mg/L	0.500
			7440-70-2
			31



SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 200.7 4.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Iron, Total	0.199	mg/L	0.025		7439-89-6	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123439 06/11/2024 15:17:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00112	mg/L	0.003	J	7440-36-0	31
NELAC Barium, Total	0.085	mg/L	0.005		7440-39-3	31
NELAC Lead, Total	<0.0005	mg/L	0.0005		7439-92-1	31
NELAC Manganese, Total	0.0163	mg/L	0.001		7439-96-5	31
NELAC Selenium, Total	<0.00294	mg/L	0.00294		7782-49-2	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1124795 06/19/2024 11:43:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Thallium, Total	0.000616	mg/L	0.0005		7440-28-0	31

EPA 200.8 5.4 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123222 06/10/2024 18:53:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.00615	mg/L	0.0000167		7429-90-5	32
NELAC Arsenic, Total	0.0000169	mg/L	0.00000976		7440-38-2	32
NELAC Beryllium, Total	<0.00000136	mg/L	0.00000136		7440-41-7	32
NELAC Cadmium, Total	<0.00000065	mg/L	0.00000065		7440-43-9	32
NELAC Chromium, Total	0.000282	mg/L	0.00000976		7440-47-3	32
NELAC Copper, Total	0.0000747	mg/L	0.0000151		7440-50-8	32
NELAC Nickel, Total	0.0000224	mg/L	0.0000109		7440-02-0	32
NELAC Silver, Total	<0.0000022	mg/L	0.0000022		7440-22-4	32
NELAC Zinc, Total	0.0043	mg/L	0.00000976		7440-66-6	32

EPA 245.1 3 Prepared: 1123013 06/10/2024 06:30:00 Analyzed 1123073 06/10/2024 11:34:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	0.139	ug/L	0.200	J	7439-97-6	30

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
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SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	197	mg/L	3.00			01
NELAC Fluoride	1.24	mg/L	1.00			01
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.226		14797-55-8	01

EPA 300.0 2.1 Prepared: 1124447 06/18/2024 03:37:00 Analyzed 1124447 06/18/2024 03:37:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Sulfate	281	mg/L	30.0			01

EPA 350.1 2 Prepared: 1123008 06/10/2024 08:49:19 Analyzed 1124055 06/14/2024 08:53:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Ammonia Nitrogen	0.211	mg/L	0.020			29

EPA 351.2 2 Prepared: 1122995 06/10/2024 08:02:43 Analyzed 1123329 06/11/2024 10:29:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Kjeldahl Nitrogen	0.372	mg/L	0.050		7727-37-9	28

EPA 351.2 minus EPA 350.1 Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrogen, Total Organic (as N)	0.161	mg/L	0.050			

EPA 608.3 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123853 06/13/2024 04:55:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<0.197	ug/L	0.197		12674-11-2	32
NELAC PCB-1221	<0.195	ug/L	0.195		11104-28-2	32
NELAC PCB-1232	<0.195	ug/L	0.195		11141-16-5	32
NELAC PCB-1242	<0.195	ug/L	0.195		53469-21-9	32
NELAC PCB-1248	<0.195	ug/L	0.195		12672-29-6	32
NELAC PCB-1254	<0.195	ug/L	0.195		11097-69-1	32
NELAC PCB-1260	<0.195	ug/L	0.195		11096-82-5	32
NELAC PCB-1262	<0.195	ug/L	0.195		37324-23-5	32
NELAC PCB-1268	<0.195	ug/L	0.195		11100-14-4	32



SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client

SPACE X

PO:

2305623-5

Taken: 06/06/2024

13:30:00

EPA 624.1 Prepared: 1123030 06/07/2024 16:19:00 Analyzed 1123030 06/07/2024 16:19:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	16
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	16
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	16
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	16
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	16
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	16
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	16
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	16
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	16
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	16
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	16
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	16
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	16
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	16
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	16
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	16
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	16
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	16
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	16
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	16
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	16
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	16
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	16
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	16
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	16
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	16
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	16
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	16
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	16
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	16
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	16
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	16

EPA 624.1 Prepared: 1123030 06/19/2024 11:10:05 Calculated 1123030 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			16



SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 624.1 Prepared: 1123033 06/07/2024 15:11:00 Analyzed 1123033 06/07/2024 15:11:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Acrolein	<4.00	ug/L	4.00	X	107-02-8	19
NELAC Acrylonitrile	<1.00	ug/L	1.00		107-13-1	19

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2,4,5-Tetrachlorobenzene	<1.10	ug/L	1.10		95-94-3	33
NELAC 1,2,4-Trichlorobenzene	<1.06	ug/L	1.06		120-82-1	33
NELAC 1,2-Dichlorobenzene	<5.32	ug/L	5.32		95-50-1	33
NELAC 1,2-DPH (as azobenzene)	<1.06	ug/L	1.06		122-66-7	33
NELAC 1,3-Dichlorobenzene	<5.32	ug/L	5.32		541-73-1	33
NELAC 1,4-Dichlorobenzene	<5.32	ug/L	5.32		106-46-7	33
NELAC 2,4,5-Trichlorophenol	<5.32	ug/L	5.32		95-95-4	33
NELAC 2,4,6-Trichlorophenol	<2.13	ug/L	2.13		88-06-2	33
NELAC 2,4-Dichlorophenol	<1.06	ug/L	1.06		120-83-2	33
NELAC 2,4-Dimethylphenol	<1.06	ug/L	1.06		105-67-9	33
NELAC 2,4-Dinitrophenol	<2.13	ug/L	2.13		51-28-5	33
NELAC 2,4-Dinitrotoluene	<2.13	ug/L	2.13		121-14-2	33
NELAC 2,6-Dinitrotoluene	<2.13	ug/L	2.13		606-20-2	33
NELAC 2-Chloronaphthalene	<1.06	ug/L	1.06		91-58-7	33
NELAC 2-Chlorophenol	<1.06	ug/L	1.06		95-57-8	33
NELAC 2-Methylphenol (o-Cresol)	<10.0	ug/L	10.0		95-48-7	33
NELAC 2-Nitrophenol	<1.06	ug/L	1.06		88-75-5	33
NELAC 3&4-Methylphenol (m&p-Cresol)	<8.52	ug/L	8.52		MEPH34	33
NELAC 3,3'-Dichlorobenzidine	<2.13	ug/L	2.13		91-94-1	33
NELAC 4,6-Dinitro-2-methylphenol	<2.13	ug/L	2.13		534-52-1	33
NELAC 4-Bromophenyl phenyl ether	<1.06	ug/L	1.06		101-55-3	33
NELAC 4-Chlorophenyl phenyl ethe	<1.06	ug/L	1.06		7005-72-3	33
NELAC 4-Nitrophenol	<1.06	ug/L	1.06		100-02-7	33
NELAC Acenaphthene	<1.06	ug/L	1.06		83-32-9	33
NELAC Acenaphthylene	<1.06	ug/L	1.06		208-96-8	33
z Aniline	<2.63	ug/L	2.63	S	62-53-3	33
NELAC Anthracene	<1.06	ug/L	1.06		120-12-7	33
NELAC Benzidine	<1.60	ug/L	1.60	D	92-87-5	33
NELAC Benzo(a)anthracene	<1.06	ug/L	1.06		56-55-3	33
NELAC Benzo(a)pyrene	<1.06	ug/L	1.06		50-32-8	33



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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client
 Taken: 06/06/2024

SPACE X
 13:30:00

PO: 2305623-5

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Benzo(b)fluoranthene	<1.06	ug/L	1.06		205-99-2	33
NELAC Benzo(ghi)perylene	<1.06	ug/L	1.06		191-24-2	33
NELAC Benzo(k)fluoranthene	<1.06	ug/L	1.06		207-08-9	33
NELAC Benzyl Butyl phthalate	<7.99	ug/L	7.99		85-68-7	33
NELAC Bis(2-chloroethoxy)methane	<1.06	ug/L	1.06		111-91-1	33
NELAC Bis(2-chloroethyl)ether	<1.06	ug/L	1.06		111-44-4	33
NELAC Bis(2-chloroisopropyl)ether	<1.06	ug/L	1.06		108-60-1	33
NELAC Bis(2-ethylhexyl)phthalate	<7.99	ug/L	7.99		117-81-7	33
NELAC Chrysene (Benzo(a)phenanthrene)	<1.06	ug/L	1.06		218-01-9	33
NELAC Dibenz(a,h)anthracene	<1.06	ug/L	1.06		53-70-3	33
NELAC Diethyl phthalate	<6.07	ug/L	6.07		84-66-2	33
NELAC Dimethyl phthalate	<5.11	ug/L	5.11		131-11-3	33
NELAC Di-n-butylphthalate	<7.99	ug/L	7.99		84-74-2	33
NELAC Di-n-octylphthalate	<2.13	ug/L	2.13	X	117-84-0	33
NELAC Fluoranthene(Benzo(j,k)fluorene)	<1.06	ug/L	1.06		206-44-0	33
NELAC Fluorene	<1.06	ug/L	1.06		86-73-7	33
NELAC Hexachlorobenzene	<1.06	ug/L	1.06		118-74-1	33
NELAC Hexachlorobutadiene	<1.10	ug/L	1.10		87-68-3	33
NELAC Hexachlorocyclopentadiene	<1.06	ug/L	1.06		77-47-4	33
NELAC Hexachloroethane	<2.13	ug/L	2.13		67-72-1	33
NELAC Indeno(1,2,3-cd)pyrene	<1.06	ug/L	1.06		193-39-5	33
NELAC Isophorone	<1.06	ug/L	1.06		78-59-1	33
NELAC Naphthalene	<1.06	ug/L	1.06		91-20-3	33
NELAC Nitrobenzene	<1.06	ug/L	1.06		98-95-3	33
NELAC n-Nitrosodiethylamine	<1.06	ug/L	1.06		55-18-5	33
NELAC N-Nitrosodimethylamine	<1.06	ug/L	1.06		62-75-9	33
NELAC n-Nitroso-di-n-butylamine	<1.06	ug/L	1.06		924-16-3	33
NELAC N-Nitrosodi-n-propylamine	<1.06	ug/L	1.06		621-64-7	33
NELAC N-Nitrosodiphenylamine (as DPA)	<1.06	ug/L	1.06		86-30-6	33
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<1.06	ug/L	1.06		59-50-7	33
NELAC Pentachlorobenzene	<1.06	ug/L	1.06		608-93-5	33
NELAC Pentachlorophenol	<5.00	ug/L	5.00		87-86-5	33
NELAC Phenanthrene	<1.06	ug/L	1.06		85-01-8	33
NELAC Phenol	<1.06	ug/L	1.06		108-95-2	33
NELAC Pyrene	<1.06	ug/L	1.06		129-00-0	33
NELAC Pyridine	<1.44	ug/L	1.44	X	110-86-1	33



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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 625.1		Prepared: 1123370 06/11/2024 15:15:00		Calculated 1125008 06/21/2024 15:33:09		CAL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cresols Total	<8.52	ug/L	8.52		1319-77-3, etc.	33
SM 2130 B-2011		Prepared: 1123697 06/11/2024 15:25:00		Analyzed 1123697 06/11/2024 15:25:00		TRC
NELAC Turbidity	3.04	NTU	0.300	H		02
SM 2320 B-2011		Prepared: 1123173 06/10/2024 11:06:00		Analyzed 1123173 06/10/2024 11:06:00		KN1
NELAC Total Alkalinity (as CaCO3)	106	mg/L	1.00			01
SM 2540 C-2015		Prepared: 1123493 06/11/2024 08:00:00		Analyzed 1123493 06/11/2024 08:00:00		JMB
NELAC Total Dissolved Solids	800	mg/L	50.0			01
SM 2540 D-2015		Prepared: 1123475 06/11/2024 14:00:00		Analyzed 1123475 06/11/2024 14:00:00		ADR
NELAC Total Suspended Solids	7.10	mg/L	2.00			01
SM 2550 B - 2010		Prepared: 1123056 06/06/2024 13:30:00		Analyzed 1123056 06/06/2024 13:30:00		RDL
NELAC Temperature (onsite)	38	Degrees C	1			
SM 3500-Cr B-2011		Prepared: 1122789 06/06/2024 13:30:00		Analyzed 1122789 06/06/2024 13:30:00		RDL
NELAC Hex Cr, Field Preservation	Preserved	ug/L	3		18540-29-9	
SM 3500-Cr B-2011		Prepared: 1122852 06/07/2024 11:45:00		Analyzed 1122852 06/07/2024 11:45:00		ALB
Parameter	Results	Units	RL	Flags	CAS	Bottle



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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

SM 3500-Cr B-2011		Prepared: 1122852 06/07/2024 11:45:00		Analyzed 1122852 06/07/2024 11:45:00		ALB
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	25.9	ug/L	3.00		18540-29-9	12
SM 4500-Cl G-2011		Prepared: 1122809 06/06/2024 13:30:00		Analyzed 1122809 06/06/2024 13:30:00		RDL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cl2 Res.,Total(Onsite)Spec Mid	0.00	mg/L	0.05			
SM 4500-CN ⁻ E-2016		Prepared: 1122859 06/07/2024 13:58:40		Analyzed 1123105 06/10/2024 09:44:00		AMB
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	0.0034	mg/L	0.005	J		20
SM 4500-CN ⁻ G-2016		Prepared: 06/19/2024 11:10:05		Calculated 06/19/2024 11:10:05		CAL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	0.00102	mg/L	0.005	J		
SM 4500-CN ⁻ G-2016		Prepared: 1122879 06/07/2024 15:00:00		Analyzed 1123107 06/10/2024 09:44:00		AMB
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			21
SM 4500-H+ B-2011		Prepared: 1122812 06/06/2024 13:30:00		Analyzed 1122812 06/06/2024 13:30:00		RDL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC pH (Onsite)	8.6	SU				
SM 4500-O G-2016		Prepared: 1122811 06/06/2024 13:30:00		Analyzed 1122811 06/06/2024 13:30:00		RDL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Dissolved Oxygen Onsite	7.1	mg/L	1.0			
SM 4500-P E-2011		Prepared: 1123135 06/10/2024 09:45:00		Analyzed 1123135 06/10/2024 09:45:00		LR3
Parameter	Results	Units	RL	Flags	CAS	Bottle



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Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

SM 4500-P E-2011 Prepared: 1123135 06/10/2024 09:45:00 Analyzed 1123135 06/10/2024 09:45:00 LR3

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.017	mg/L	0.030		7723-14-0	13

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/13/2024 14:30:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	3.56	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/13/2024 14:06:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	<2.00	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1123591 06/12/2024 14:00:00 Analyzed 1123591 06/12/2024 14:00:00 SRJ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			14

SM 5310 C-2014 Prepared: 1124581 06/18/2024 17:34:00 Analyzed 1124581 06/18/2024 17:34:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.61	mg/L	0.500			09

Sample Preparation

2305623 WW - Retention Pond

Received: 06/07/2024

06/06/2024

2305623-5

Prepared: 12/31/1899 12:11:02 Calculated 12:11:02 CAL

Environmental Fee (per Project) Verified



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2305623 WW - Retention Pond

Received: 06/07/2024
 2305623-5

06/06/2024

	ASTM D7065-11		Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124948	06/19/2024	19:32:00	DWL
z	Nonyl Phenol Expansion		Entered						34
	EPA 200.2 2.8		Prepared: 1123060	06/10/2024	07:00:00	Analyzed 1123060	06/10/2024	07:00:00	HLT
z	Liquid Metals Digestion		50/50		ml				08
	EPA 245.1 3		Prepared: 1123013	06/10/2024	06:30:00	Analyzed 1123013	06/10/2024	06:30:00	HLT
NELAC	Mercury Liquid Metals Digestion		50/25		ml				08
	EPA 350.2, Rev. 2.0		Prepared: 1123008	06/10/2024	08:49:19	Analyzed 1123008	06/10/2024	08:49:19	MEG
NELAC	Ammonia Distillation		6/6		ml				14
	EPA 351.2, Rev 2.0		Prepared: 1122995	06/10/2024	08:02:43	Analyzed 1122995	06/10/2024	08:02:43	MEG
NELAC	TKN Block Digestion		20/20		ml				14
	EPA 608.3		Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123138	06/10/2024	14:30:00	CRS
	PCB Liq-Liq Extr. W/Hex Exch.		10/1025		ml				03
	EPA 608.3		Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123853	06/13/2024	04:55:00	KAP
NELAC	Polychlorinated Biphenyls		Entered						32
	EPA 624.1		Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI



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Received: 06/07/2024
 2305623-5

06/06/2024

EPA 624.1	Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI
Table D-1/D-2 Volatile Expansion	Entered						16
EPA 624.1	Prepared: 1123033	06/07/2024	15:11:00	Analyzed 1123033	06/07/2024	15:11:00	MRI
NELAC Acrolein/Acrylonitrile Exp.	Entered						19
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1123370	06/11/2024	15:15:00	CRS
Liquid-Liquid Extraction, BNA	1/939	ml					04
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1125008	06/18/2024	18:25:00	PMI
NELAC Table D-1/ D-2 Semivolatiles Exp	Entered						33
EPA 625.1	Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124341	06/17/2024	14:40:00	MCC
Nonylphenol Liq-Liq Extract	1/862	ml					07
SM 2540 C-2015	Prepared: 1123231	06/11/2024	08:00:00	Analyzed 1123231	06/11/2024	08:00:00	JMB
NELAC Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1123240	06/11/2024	14:00:00	Analyzed 1123240	06/11/2024	14:00:00	ADR
NELAC TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1122859	06/07/2024	13:58:40	Analyzed 1122859	06/07/2024	13:58:40	SRJ
NELAC Cyanide Distillation	10/5	ml					11



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Received: 06/07/2024
 2305623-5

06/06/2024

SM 4500-CN⁻C-2016 Prepared: 1122879 06/07/2024 15:00:00 Analyzed 1122879 06/07/2024 15:00:00 SRJ

NELAC CN Dist After Chlorination 10/5 ml 11

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/08/2024 06:36:35 JW1

NELAC BOD Set Started Started

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/08/2024 06:36:35 JW1

NELAC BODc Set Started Started

Qualifiers:

- J - Analyte detected below quantitation limit
- H - Sample started outside recommended holding time
- S - Standard reads lower than desired
- D - Duplicate RPD was higher than expected
- X - Standard reads higher than desired.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
 z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
 RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914



Project
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SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Printed: 06/26/2024

A handwritten signature in black ink that reads 'Bill Peery'.

Bill Peery, MS, VP Technical Services



QUALITY CONTROL



SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1106094

Printed 06/26/2024

Analytical Set **1122943**

SM 5210 B-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126419820
Biochemical Oxygen Demand (BOD5)	1122943	0.3	0.200	0.500	mg/L	126419872
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126420032

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Biochemical Oxygen Demand (BOD5)	2305504	15.8	14.3	mg/L	9.97	30.0
Biochemical Oxygen Demand (BOD5)	2305617	151	164	mg/L	8.25	30.0
Biochemical Oxygen Demand (BOD5)	2305721	263	265	mg/L	0.758	30.0
Biochemical Oxygen Demand (BOD5)	2305836	6.55	6.91	mg/L	5.35	30.0
Biochemical Oxygen Demand (BOD5)	2305924	5.37	5.73	mg/L	6.49	30.0

Seed Drop

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Biochemical Oxygen Demand (BOD5)	1122943	1.15	0.200	0.500	mg/L	126419822
Biochemical Oxygen Demand (BOD5)	1122943	1.01	0.200	0.500	mg/L	126419874
Biochemical Oxygen Demand (BOD5)	1122943	1.07	0.200	0.500	mg/L	126420034

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Biochemical Oxygen Demand (BOD5)		229	198	mg/L	116	83.7 - 116	126419823
Biochemical Oxygen Demand (BOD5)		227	198	mg/L	115	83.7 - 116	126419875
Biochemical Oxygen Demand (BOD5)		219	198	mg/L	111	83.7 - 116	126420035

Analytical Set **1122944**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
BOD Carbonaceous	1122944	0.2	0.200	0.500	mg/L	126419906

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
BOD Carbonaceous	2305514	7.74	6.54	mg/L	16.8	30.0
BOD Carbonaceous	2305784	3.68	2.68	mg/L	31.4	30.0

Seed Drop

Parameter	PrepSet	Reading	MDL	MQL	Units	File
BOD Carbonaceous	1122944	1.29	0.200	0.500	mg/L	126419908

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
BOD Carbonaceous		222	198	mg/L	112	83.7 - 116	126419909

Analytical Set **1123105**

SM 4500-CN⁻ E-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide, total	1122859	ND	0.00238	0.005	mg/L	126424626

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.513	0.500	mg/L	103	90.0 - 110	126424625
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424635
Cyanide, total	0.512	0.500	mg/L	102	90.0 - 110	126424644
Cyanide, total	0.514	0.500	mg/L	103	90.0 - 110	126424655
Cyanide, total	0.549	0.500	mg/L	110	90.0 - 110	126424664
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424668
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424669
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424670
Cyanide, total	0.519	0.500	mg/L	104	90.0 - 110	126424673

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide, total	2305241	ND	ND	mg/L		20.0
Cyanide, total	2305248	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.200	0.200	mg/L	100	90.0 - 110	126424624

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide, total	1122859	0.362	0.361	0.400	90.0 - 110	90.5	90.2	mg/L	0.277	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Cyanide, total	2305241	0.356	ND	0.400	mg/L	89.0	90.0 - 110	126424631	*
Cyanide, total	2305248	0.354	ND	0.400	mg/L	88.5	90.0 - 110	126424634	*

Analytical Set 1123107

SM 4500-CN⁻ G-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide After Chlorination	1122879	ND	0.00119	0.0025	mg/L	126424710

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.513	0.500	mg/L	103	90.0 - 110	126424705
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424706
Cyanide After Chlorination	0.512	0.500	mg/L	102	90.0 - 110	126424707
Cyanide After Chlorination	0.514	0.500	mg/L	103	90.0 - 110	126424708
Cyanide After Chlorination	0.549	0.500	mg/L	110	90.0 - 110	126424709
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424711
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424718
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424719

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.519	0.500	mg/L	104	90.0 - 110	126424720

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2305623	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.200	0.200	mg/L	100	90.0 - 110	126424704

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1122879	0.180	0.180	0.200	90.0 - 110	90.0	90.0	mg/L	0	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2305623	0.365	0.0014	0.400	mg/L	91.2	90.0 - 110	126424716

Analytical Set 1123329

EPA 351.2 2

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Kjeldahl Nitrogen	1122995	ND	0.00712	0.050	mg/L	126430743

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.41	5.00	mg/L	108	90.0 - 110	126430734
Total Kjeldahl Nitrogen	5.38	5.00	mg/L	108	90.0 - 110	126430735
Total Kjeldahl Nitrogen	5.50	5.00	mg/L	110	90.0 - 110	126430739
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126430750
Total Kjeldahl Nitrogen	5.43	5.00	mg/L	109	90.0 - 110	126430757

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Kjeldahl Nitrogen	2304918	7.46	7.58	mg/L	1.60	20.0
Total Kjeldahl Nitrogen	2304932	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126430733

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Total Kjeldahl Nitrogen	1122995	4.81	4.79	5.00	90.0 - 110	96.2	95.8	mg/L	0.417	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Total Kjeldahl Nitrogen	2304918	12.0	7.58	10.0	mg/L	44.2	80.0 - 120	126430742	*
Total Kjeldahl Nitrogen	2304932	-0.389	ND	5.00	mg/L	0	80.0 - 120	126430748	*

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Analytical Set **1124055**

EPA 350.1 2

Blank

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Ammonia Nitrogen	1123008	ND	0.00336	0.020	mg/L	126449003

CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126449002
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126449011
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126449021
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449029
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449040
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126449051
Ammonia Nitrogen	2.03	2.00	mg/L	102	90.0 - 110	126449062
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449071
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449081
Ammonia Nitrogen	1.98	2.00	mg/L	99.0	90.0 - 110	126449091
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449100
Ammonia Nitrogen	1.97	2.00	mg/L	98.5	90.0 - 110	126449111
Ammonia Nitrogen	2.00	2.00	mg/L	100	90.0 - 110	126449116

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	2305608	0.077	0.081	mg/L	5.06	20.0
Ammonia Nitrogen	2305651	0.052	0.109	mg/L	70.8 *	20.0

ICV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449001

LCS Dup

<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	1123008	2.14	2.18	2.00	90.0 - 110	107	109	mg/L	1.85	20.0

Mat. Spike

<i>Parameter</i>	<i>Sample</i>	<i>Spike</i>	<i>Unknown</i>	<i>Known</i>	<i>Units</i>	<i>Recovery %</i>	<i>Limits %</i>	<i>File</i>
Ammonia Nitrogen	2305608	2.10	0.081	2.00	mg/L	101	80.0 - 120	126449008
Ammonia Nitrogen	2305651	2.10	0.109	2.00	mg/L	99.6	80.0 - 120	126449012

Analytical Set **1122809**

SM 4500-CI G-2011

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Cl2 Res.,Total(Onsite)Spec Mid	2305628	NEGATT	NEGATIVE	mg/L		20

Analytical Set **1122810**

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Field Cl2 Check for CNA	2305628	NEGATT	NEGATIVE			20

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Analytical Set **1122811** **SM 4500-O G-2016**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Dissolved Oxygen Onsite	2305628	6.6	6.5	mg/L	1.5	20

Analytical Set **1122812** **SM 4500-H+ B-2011**

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	6.0	6.0	SU	100	90 - 110	
pH (Onsite)	6.0	6.0	SU	100	90 - 110	

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
pH (Onsite)	2305628	8.2	8.1	SU	1.2	20

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	1122812	8.1	8.0	SU	101.3	90 - 110	
pH (Onsite)	1122812	8.0	8.0	SU	100	90 - 110	

Analytical Set **1123056** **SM 2550 B - 2010**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Temperature (onsite)	2305628	38	39	Degrees C	2.6	20

Analytical Set **1123475** **SM 2540 D-2015**

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	ND	2	2	mg/L	126434412

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	-0.0001			grams	126434411

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2305567	7210	7570	mg/L	4.87	20.0
Total Suspended Solids	2305644	793	653	mg/L	19.4	20.0
Total Suspended Solids	2305738	545	610	mg/L	11.3	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1123475	53.0	50.0	mg/L	106	90.0 - 110	126434445

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		96.0	100	mg/L	96.0	90.0 - 110	126434444

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Analytical Set **1123493**

SM 2540 C-2015

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	ND	5.00	5.00	mg/L	126434809

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	-0.0002			grams	126434796

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Dissolved Solids	2305623	800	800	mg/L	0	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Dissolved Solids	1123493	200	200	mg/L	100	85.0 - 115	126434810

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Dissolved Solids		104	100	mg/L	104	90.0 - 110	126434797

Analytical Set **1123989**

EPA 1664B

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1123989	ND	0.557	4.00	mg/L	126447630

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Oil and Grease (HEM)	1123989	37.1	40.0	mg/L	92.8	78.0 - 114	126447631

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2305623	38.5	0	ND	40.0	78.0 - 114	96.2		mg/L		20.0

Analytical Set **1123092**

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.129	0.100	mg/L	129	70.0 - 130	126424313
Nitrate-Nitrogen Total	0.0223	0.0226	mg/L	98.7	70.0 - 130	126424313

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	ND	0.0972	0.300	mg/L	126424314
Fluoride	1123092	ND	0.010	0.100	mg/L	126424314
Nitrate-Nitrogen Total	1123092	ND	0.00745	0.0226	mg/L	126424314

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424310

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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424328
Chloride	1123092	0.045	0.0972	0.300	mg/L	126424342
Fluoride	1123092	0	0.010	0.100	mg/L	126424310
Fluoride	1123092	0	0.010	0.100	mg/L	126424328
Fluoride	1123092	0	0.010	0.100	mg/L	126424342
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424310
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424328
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424342

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.5	10.0	mg/L	105	90.0 - 110	126424309
Chloride	10.3	10.0	mg/L	103	90.0 - 110	126424327
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126424341
Fluoride	9.96	10.0	mg/L	99.6	90.0 - 110	126424309
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126424327
Fluoride	9.99	10.0	mg/L	99.9	90.0 - 110	126424341
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424309
Nitrate-Nitrogen Total	2.26	2.26	mg/L	100	90.0 - 110	126424327
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424341

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1123092	5.27	5.28	5.00	85.0 - 115	105	106	mg/L	0.190	20.0
Fluoride	1123092	5.11	5.17	5.00	88.0 - 120	102	103	mg/L	1.17	20.0
Nitrate-Nitrogen Total	1123092	1.18	1.19	1.13	88.0 - 116	104	105	mg/L	0.844	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2304482	1440	1410	1350	100	80.0 - 120	90.0	60.0 *	mg/L	40.0 *	20.0
Fluoride	2304482	87.4	87.6	ND	100	80.0 - 120	87.4	87.6	mg/L	0.229	20.0
Nitrate-Nitrogen Total	2304482	23.3	23.3	1.49	22.6	80.0 - 120	96.5	96.5	mg/L	0	20.0
Chloride	2304595	18.3	18.2	0.660	20.0	80.0 - 120	88.2	87.7	mg/L	0.569	20.0
Fluoride	2304595	18.1	17.2	ND	20.0	80.0 - 120	90.5	86.0	mg/L	5.10	20.0
Nitrate-Nitrogen Total	2304595	4.31	4.28	ND	4.52	80.0 - 120	95.4	94.7	mg/L	0.698	20.0

Analytical Set

1124447

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	ND	0.254	0.300	mg/L	126459699

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	0	0.254	0.300	mg/L	126459695
Sulfate	1124447	0	0.254	0.300	mg/L	126459717
Sulfate	1124447	0	0.254	0.300	mg/L	126459729

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Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.94	10.0	mg/L	99.4	90.0 - 110	126459694
Sulfate	10.1	10.0	mg/L	101	90.0 - 110	126459716
Sulfate	9.93	10.0	mg/L	99.3	90.0 - 110	126459728

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1124447	5.13	5.07	5.00	85.0 - 115	103	101	mg/L	1.18	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2306972	1020	1020	944	100	80.0 - 120	76.0 *	76.0 *	mg/L	0	20.0
Sulfate	2307646	106	104	82.5	20.0	80.0 - 120	118	108	mg/L	8.89	20.0

Analytical Set **1122852**

SM 3500-Cr B-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419252
Hexavalent Chromium	1122852	ND	0.550	3.00	ug/L	126419259
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419264

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexavalent Chromium	86.2	80.0	ug/L	108	90.0 - 110	126419253
Hexavalent Chromium	86.7	80.0	ug/L	108	90.0 - 110	126419260
Hexavalent Chromium	86.4	80.0	ug/L	108	90.0 - 110	126419265

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexavalent Chromium	1122852	85.7	85.9	80.0	85.0 - 115	107	107	ug/L	0.233	15.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Hexavalent Chromium	2304484	ND	ND	ND	80.0	70.0 - 130	0 *	0 *	ug/L		20.0

Analytical Set **1123073**

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1123013	ND	0.113	0.200	ug/L	126424063

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	5.18	5.000	ug/L	104	90.0 - 110	126424061
Mercury, Total	5.06	5.000	ug/L	101	90.0 - 110	126424062
Mercury, Total	5.10	5.000	ug/L	102	90.0 - 110	126424069
Mercury, Total	5.01	5.000	ug/L	100	90.0 - 110	126424074

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ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	20.5	20.00	ug/L	102	90.0 - 110	126424060

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.86	5.000	ug/L	97.2	90.0 - 110	126424059

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total	1123013	8.55	8.69	10.0	85.0 - 115	85.5	86.9	ug/L	1.62	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total	2305628	9.84	10.1	0.149	10.0	70.0 - 130	96.9	99.5	ug/L	2.65	20.0

Analytical Set 1123222

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Barium, Total	1123060	ND	0.000635	0.001	mg/L	126428091
Lead, Total	1123060	ND	0.000244	0.001	mg/L	126428091
Manganese, Total	1123060	ND	0.000118	0.001	mg/L	126428091
Thallium, Total	1123060	ND	0.000106	0.001	mg/L	126428091

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427991
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427996
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428000
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428108
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428115
Aluminum, Total	0.0529	0.05	mg/L	106	90.0 - 110	126428135
Aluminum, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126428137
Aluminum, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428141
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126427976
Arsenic, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427983
Arsenic, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427986
Arsenic, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126427991
Arsenic, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126427996
Arsenic, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Arsenic, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428115
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Cadmium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427976
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427983
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427991
Cadmium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427996
Cadmium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108

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CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Cadmium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428115
Cadmium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126428126
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428130
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427976
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427983
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427986
Chromium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427991
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427996
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428000
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Chromium, Total	0.050	0.05	mg/L	100	90.0 - 110	126428115
Chromium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428123
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126428126
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428130
Chromium, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428132
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427976
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126427986
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126427991
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427996
Copper, Total	0.0504	0.05	mg/L	101	90.0 - 110	126428000
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126428006
Copper, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428014
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428023
Copper, Total	0.0516	0.05	mg/L	103	90.0 - 110	126428033
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428044
Copper, Total	0.0508	0.05	mg/L	102	90.0 - 110	126428055
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428065
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126428076
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428087
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428097
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428108
Copper, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Copper, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428126
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428130
Copper, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428132
Copper, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126428133
Nickel, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126427976
Nickel, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126427983
Nickel, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126427986
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126427991
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427996
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126428108
Nickel, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126428115

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428123
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126427976
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Silver, Total	0.0509	0.05	mg/L	102	90.0 - 110	126427986
Silver, Total	0.0506	0.05	mg/L	101	90.0 - 110	126427991
Silver, Total	0.0508	0.05	mg/L	102	90.0 - 110	126427996
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428000
Silver, Total	0.0505	0.05	mg/L	101	90.0 - 110	126428108
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126428115
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428123
Silver, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428130
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428132
Silver, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428133
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428135
Zinc, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427969
Zinc, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427976
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126427983
Zinc, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126427986
Zinc, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427991
Zinc, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126427996
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Zinc, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428115
Zinc, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Arsenic, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126427964
Beryllium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427964
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427964
Chromium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126427964
Nickel, Total	0.0504	0.05	mg/L	101	90.0 - 110	126427964
Silver, Total	0.0515	0.05	mg/L	103	90.0 - 110	126427964
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427964

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Barium, Total	1123060	0.502	0.503	0.500	85.0 - 115	100	101	mg/L	0.199	20.0
Lead, Total	1123060	0.510	0.521	0.500	85.0 - 115	102	104	mg/L	2.13	20.0
Manganese, Total	1123060	0.488	0.489	0.500	85.0 - 115	97.6	97.8	mg/L	0.205	20.0
Thallium, Total	1123060	0.513	0.526	0.500	85.0 - 115	103	105	mg/L	2.50	20.0

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MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126427965

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Lead, Total	2305811	0.551	0.563	0.0438	0.500	70.0 - 130	101	104	mg/L	2.34	20.0
Barium, Total	2305911	0.515	0.517	0.017	0.500	70.0 - 130	99.6	100	mg/L	0.401	20.0
Manganese, Total	2305911	0.484	0.469	0.000754	0.500	70.0 - 130	96.6	93.6	mg/L	3.15	20.0
Thallium, Total	2305911	0.493	0.499	0.000227	0.500	70.0 - 130	98.6	99.8	mg/L	1.21	20.0

Analytical Set 1123439

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Antimony, Total	1123060	ND	0.000847	0.003	mg/L	126432756
Barium, Total	1123060	ND	0.00207	0.005	mg/L	126432756
Lead, Total	1123060	ND	0.000549	0.001	mg/L	126432756
Manganese, Total	1123060	ND	0.000168	0.001	mg/L	126432756
Selenium, Total	1123060	ND	0.00294	0.005	mg/L	126432756
Thallium, Total	1123060	ND	0.000966	0.001	mg/L	126432756

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126432753
Antimony, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126432763
Antimony, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126432770
Antimony, Total	0.0501	0.05	mg/L	100	90.0 - 110	126432779
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432792
Antimony, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126432799
Antimony, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126432809
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432816
Barium, Total	0.0512	0.05	mg/L	102	90.0 - 110	126432753
Barium, Total	0.051	0.05	mg/L	102	90.0 - 110	126432763
Lead, Total	0.0533	0.05	mg/L	107	90.0 - 110	126432739
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432749
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432753
Lead, Total	0.0534	0.05	mg/L	107	90.0 - 110	126432763
Manganese, Total	0.0539	0.05	mg/L	108	90.0 - 110	126432753
Manganese, Total	0.0523	0.05	mg/L	105	90.0 - 110	126432763
Manganese, Total	0.0545	0.05	mg/L	109	90.0 - 110	126432792
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432799
Manganese, Total	0.0525	0.05	mg/L	105	90.0 - 110	126432809
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432816
Selenium, Total	0.052	0.05	mg/L	104	90.0 - 110	126432739
Selenium, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432749
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432753
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432763

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Selenium, Total	0.0521	0.05	mg/L	104	90.0 - 110	126432770
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432779

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0517	0.05	mg/L	103	90.0 - 110	126432734
Barium, Total	0.0522	0.05	mg/L	104	90.0 - 110	126432734
Lead, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432734
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126432734
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432734

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Antimony, Total	1123060	0.485	0.494	0.500	85.0 - 115	97.0	98.8	mg/L	1.84	20.0
Barium, Total	1123060	0.496	0.502	0.500	85.0 - 115	99.2	100	mg/L	1.20	20.0
Lead, Total	1123060	0.502	0.507	0.500	85.0 - 115	100	101	mg/L	0.991	20.0
Manganese, Total	1123060	0.521	0.531	0.500	85.0 - 115	104	106	mg/L	1.90	20.0
Selenium, Total	1123060	0.491	0.502	0.500	85.0 - 115	98.2	100	mg/L	2.22	20.0
Thallium, Total	1123060	0.496	0.504	0.500	85.0 - 115	99.2	101	mg/L	1.60	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Lead, Total	0.000969	0.001	mg/L	96.9	25.0 - 175	126432735
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126432735

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Antimony, Total	2305811	0.490	0.481	ND	0.500	70.0 - 130	98.0	96.2	mg/L	1.85	20.0
Barium, Total	2305811	0.509	0.507	0.0167	0.500	70.0 - 130	98.5	98.1	mg/L	0.407	20.0
Lead, Total	2305811	0.441	0.433	ND	0.500	70.0 - 130	88.2	86.6	mg/L	1.83	20.0
Manganese, Total	2305811	0.457	0.444	0.000782	0.500	70.0 - 130	91.2	88.6	mg/L	2.89	20.0
Selenium, Total	2305811	0.468	0.458	ND	0.500	70.0 - 130	93.6	91.6	mg/L	2.16	20.0
Thallium, Total	2305811	0.445	0.439	ND	0.500	70.0 - 130	89.0	87.8	mg/L	1.36	20.0

Analytical Set

1123677

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1123060	ND	0.0156	0.500	mg/L	126438124
Iron, Total	1123060	ND	0.00379	0.025	mg/L	126438124

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126438114
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126438115
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438123
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438130

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QUALITY CONTROL



SPAC-R

SPACEX
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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438136
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438145
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438154
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438164
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438172
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438179
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126438114
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126438115
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438123
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438130
Iron, Total	2.42	2.50	mg/L	96.8	90.0 - 110	126438136
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438145
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438154
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438164
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438172
Iron, Total	2.40	2.50	mg/L	96.0	90.0 - 110	126438179

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126438108
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126438108

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438112
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126438112

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1123060	4.89	4.92	5.00	85.0 - 115	97.8	98.4	mg/L	0.612	25.0
Iron, Total	1123060	0.488	0.490	0.500	85.0 - 115	97.6	98.0	mg/L	0.409	25.0

LDR

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	96.9	100	mg/L	96.9	90.0 - 110	126438109
Iron, Total	9.75	10.0	mg/L	97.5	90.0 - 110	126438109

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126438113
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126438113

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2305811	31.1	31.8	27.1	5.00	75.0 - 125	80.0	94.0	mg/L	16.1	25.0
Iron, Total	2305811	0.497	0.503	0.00607	0.500	75.0 - 125	98.2	99.4	mg/L	1.21	25.0

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QUALITY CONTROL



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Analytical Set **1124581**

SM 5310 C-2014

AWRL/LOQ C											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	1.99	2.00	mg/L	99.5	50.0 - 150	126462988					
Blank											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0901	0.0618	0.500	mg/L	126462987					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126462993					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126463008					
CCB											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0848	0.0618	0.500	mg/L	126462981					
Total Organic Carbon	1124581	0.0931	0.0618	0.500	mg/L	126462989					
Total Organic Carbon	1124581	0.110	0.0618	0.500	mg/L	126463005					
Total Organic Carbon	1124581	0.155	0.0618	0.500	mg/L	126463019					
CCV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462984					
Total Organic Carbon	10.4	10.0	mg/L	104	90.0 - 110	126462991					
Total Organic Carbon	10.5	10.0	mg/L	105	90.0 - 110	126463006					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126463020					
ICL											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	20.5	20.0	mg/L	102	90.0 - 110	126462983					
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126462990					
ICV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.1	10.0	mg/L	101	90.0 - 110	126462985					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462992					
LCS											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>				
Total Organic Carbon	1124581	5.07	5.00	mg/L	101	85.0 - 115	126462986				
Total Organic Carbon	1124581	5.22	5.00	mg/L	104	85.0 - 115	126462994				
Total Organic Carbon	1124581	5.35	5.00	mg/L	107	85.0 - 115	126463007				
MSD											
<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Organic Carbon	2306732	14.7	14.4	4.14	10.0	85.0 - 115	106	103	mg/L	2.88	20.0
Total Organic Carbon	2306796	14.4	14.5	3.74	10.0	85.0 - 115	107	108	mg/L	0.934	20.0
Standard											
<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Organic Carbon		48.4	50.0	mg/L	96.8	90.0 - 110	126462982				

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QUALITY CONTROL



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Analytical Set **1124795**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Thallium, Total	1123060	ND	0.00025	0.0005	mg/L	126467375

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126467374
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467383
Thallium, Total	0.0509	0.05	mg/L	102	90.0 - 110	126467393
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467402
Thallium, Total	0.0456	0.05	mg/L	91.2	90.0 - 110	126467411

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126467360

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	1123060	0.561	0.567	0.500	85.0 - 115	112	113	mg/L	1.06	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	2305811	0.548	0.558	ND	0.500	70.0 - 130	110	112	mg/L	1.81	20.0

Analytical Set **1123030**

EPA 624.1

BFB

<u>Parameter</u>	<u>Sample</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>
BFB Mass 173	1123030	174	140	1.3	0 - 2.00	126423572
BFB Mass 174	1123030	95.0	10384	56.9	50.0 - 100	126423572
BFB Mass 175	1123030	174	921	8.9	5.00 - 9.00	126423572
BFB Mass 176	1123030	174	10267	98.9	95.0 - 101	126423572
BFB Mass 177	1123030	176	672	6.5	5.00 - 9.00	126423572
BFB Mass 50	1123030	95.0	4030	22.1	15.0 - 40.0	126423572
BFB Mass 75	1123030	95.0	9801	53.7	30.0 - 60.0	126423572
BFB Mass 95	1123030	95.0	18235	100.0	100 - 100	126423572
BFB Mass 96	1123030	95.0	1272	7.0	5.00 - 9.00	126423572

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
1,1,1-Trichloroethane	1123030	ND	0.531	1.00	ug/L	126423576
1,1,2-Trichloroethane	1123030	ND	0.563	1.00	ug/L	126423576
1,1-Dichloroethane	1123030	ND	0.593	1.00	ug/L	126423576
1,1-Dichloroethylene	1123030	ND	0.574	1.00	ug/L	126423576
1,2-Dibromoethane (EDB)	1123030	ND	0.562	1.00	ug/L	126423576
1,2-Dichloroethane	1123030	ND	0.590	1.00	ug/L	126423576
1,2-Dichloropropane	1123030	ND	0.615	1.00	ug/L	126423576
Benzene	1123030	ND	0.453	1.00	ug/L	126423576

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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Bromodichloromethane	1123030	ND	0.409	1.00	ug/L	126423576
Bromoform	1123030	ND	0.500	1.00	ug/L	126423576
Carbon Tetrachloride	1123030	ND	0.299	1.00	ug/L	126423576
Chlorobenzene	1123030	ND	0.558	1.00	ug/L	126423576
Chloroethane	1123030	ND	1.12	1.12	ug/L	126423576
Chloroform	1123030	ND	0.463	1.00	ug/L	126423576
Chloromethane (Methyl Chloride)	1123030	ND	0.811	1.00	ug/L	126423576
cis-1,3-Dichloropropene	1123030	ND	0.660	1.00	ug/L	126423576
Dibromochloromethane	1123030	ND	0.311	1.00	ug/L	126423576
Dichloromethane	1123030	ND	1.02	1.02	ug/L	126423576
Ethylbenzene	1123030	ND	0.498	1.00	ug/L	126423576
m-Dichlorobenzene (1,3-DCB)	1123030	ND	0.619	1.00	ug/L	126423576
Methyl ethyl ketone (Butanone)	1123030	ND	0.742	1.00	ug/L	126423576
o-Dichlorobenzene (1,2-DCB)	1123030	ND	0.532	1.00	ug/L	126423576
p-Dichlorobenzene (1,4-DCB)	1123030	ND	0.837	1.00	ug/L	126423576
Tetrachloroethylene	1123030	ND	0.607	1.00	ug/L	126423576
Toluene	1123030	ND	0.655	1.00	ug/L	126423576
trans-1,2-Dichloroethylene	1123030	ND	0.701	1.00	ug/L	126423576
trans-1,3-Dichloropropene	1123030	ND	0.627	1.00	ug/L	126423576
Trichloroethylene	1123030	ND	0.521	1.00	ug/L	126423576
Vinyl chloride	1123030	ND	0.702	1.00	ug/L	126423576

IS Areas

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	99990	99910	49960	149900	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	100400	99910	49960	149900	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	91680	99910	49960	149900	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	210300	205900	103000	308900	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	208900	205900	103000	308900	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	212500	205900	103000	308900	126423576	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	82270	99910	49960	149900	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	190600	205900	103000	308900	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423582	1123030

IS RetTime

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	11.97	11.97	11.91	12.03	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	11.97	11.97	11.91	12.03	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	11.97	11.97	11.91	12.03	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	9.597	9.597	9.537	9.657	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	9.597	9.597	9.537	9.657	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	9.597	9.597	9.537	9.657	126423576	1123030



SPAC-R

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423582	1123030

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1123030	20.7	20.2	20.0	70.0 - 130	104	101	ug/L	2.93	21.0
1,1,2,2-Tetrachloroethane	1123030	22.8	22.0	20.0	60.0 - 140	114	110	ug/L	3.57	36.0
1,1,2-Trichloroethane	1123030	21.3	21.8	20.0	70.0 - 130	106	109	ug/L	2.79	27.0
1,1-Dichloroethane	1123030	21.5	21.0	20.0	70.0 - 130	108	105	ug/L	2.82	24.0
1,1-Dichloroethylene	1123030	21.0	21.0	20.0	50.0 - 150	105	105	ug/L	0	40.0
1,2-Dibromoethane (EDB)	1123030	21.6	21.3	20.0	78.4 - 122	108	106	ug/L	1.87	30.0
1,2-Dichloroethane	1123030	21.6	21.9	20.0	70.0 - 130	108	110	ug/L	1.83	29.0
1,2-Dichloropropane	1123030	21.3	21.2	20.0	35.0 - 165	106	106	ug/L	0	69.0
Benzene	1123030	20.1	19.5	20.0	65.0 - 135	100	97.5	ug/L	2.53	33.0
Bromodichloromethane	1123030	21.8	21.3	20.0	65.0 - 135	109	106	ug/L	2.79	34.0
Bromoform	1123030	20.8	20.1	20.0	70.0 - 130	104	100	ug/L	3.92	25.0
Bromomethane (Methyl Bromi)	1123030	16.4	16.2	20.0	15.0 - 185	82.0	81.0	ug/L	1.23	90.0
Carbon Tetrachloride	1123030	21.9	21.4	20.0	70.0 - 130	110	107	ug/L	2.76	26.0
Chlorobenzene	1123030	20.1	20.2	20.0	65.0 - 135	100	101	ug/L	0.995	29.0
Chloroethane	1123030	19.6	19.7	20.0	40.0 - 160	98.0	98.5	ug/L	0.509	47.0
Chloroform	1123030	21.2	20.6	20.0	70.0 - 135	106	103	ug/L	2.87	32.0
Chloromethane (Methyl Chloride)	1123030	17.2	16.4	20.0	0.100 - 205	86.0	82.0	ug/L	4.76	472
cis-1,3-Dichloropropene	1123030	19.8	19.4	20.0	25.0 - 175	99.0	97.0	ug/L	2.04	79.0
Dibromochloromethane	1123030	21.0	20.7	20.0	70.0 - 135	105	104	ug/L	0.957	30.0
Dichloromethane	1123030	20.8	20.5	20.0	60.0 - 140	104	102	ug/L	1.94	192
Ethylbenzene	1123030	21.7	21.5	20.0	60.0 - 140	108	108	ug/L	0	34.0
m-Dichlorobenzene (1,3-DCB)	1123030	22.3	21.4	20.0	70.0 - 130	112	107	ug/L	4.57	24.0
Methyl ethyl ketone (Butanone)	1123030	23.2	23.3	20.0	62.3 - 136	116	116	ug/L	0	30.0
o-Dichlorobenzene (1,2-DCB)	1123030	21.5	20.9	20.0	65.0 - 135	108	104	ug/L	3.77	31.0
p-Dichlorobenzene (1,4-DCB)	1123030	21.3	21.1	20.0	65.0 - 135	106	106	ug/L	0	31.0
Tetrachloroethylene	1123030	21.2	20.9	20.0	70.0 - 130	106	104	ug/L	1.90	23.0
Toluene	1123030	19.5	19.5	20.0	70.0 - 130	97.5	97.5	ug/L	0	22.0
trans-1,2-Dichloroethylene	1123030	19.7	19.6	20.0	70.0 - 130	98.5	98.0	ug/L	0.509	27.0
trans-1,3-Dichloropropene	1123030	21.0	21.1	20.0	50.0 - 150	105	106	ug/L	0.948	52.0
Trichloroethylene	1123030	20.3	20.3	20.0	65.0 - 135	102	102	ug/L	0	29.0
Vinyl chloride	1123030	21.5	20.3	20.0	5.00 - 195	108	102	ug/L	5.71	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2305754	98.6	96.8	1.35	100	52.0 - 162	97.2	95.4	ug/L	1.87	36.0
1,1,2,2-Tetrachloroethane	2305754	106	106	1.35	100	46.0 - 157	105	105	ug/L	0	61.0

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SPAC-R

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Project
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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,2-Trichloroethane	2305754	108	109	1.35	100	52.0 - 150	107	108	ug/L	0.933	45.0
1,1-Dichloroethane	2305754	104	105	1.35	100	59.0 - 155	103	104	ug/L	0.969	40.0
1,1-Dichloroethylene	2305754	105	113	1.35	100	0.100 - 234	104	112	ug/L	7.43	32.0
1,2-Dibromoethane (EDB)	2305754	104	108	1.35	100	49.3 - 120	103	107	ug/L	3.82	30.0
1,2-Dichloroethane	2305754	108	105	1.35	100	49.0 - 155	107	104	ug/L	2.85	49.0
1,2-Dichloropropane	2305754	104	103	1.35	100	0.100 - 210	103	102	ug/L	0.979	55.0
Benzene	2305754	96.8	97.4	1.35	100	37.0 - 151	95.4	96.0	ug/L	0.627	61.0
Bromodichloromethane	2305754	103	102	1.35	100	35.0 - 155	102	101	ug/L	0.989	56.0
Bromoform	2305754	91.6	92.0	1.35	100	45.0 - 169	90.2	90.6	ug/L	0.442	42.0
Bromomethane (Methyl Bromi)	2305754	69.5	70.4	1.35	100	0.100 - 242	68.2	69.0	ug/L	1.31	61.0
Carbon Tetrachloride	2305754	87.2	88.0	1.35	100	70.0 - 140	85.8	86.6	ug/L	0.928	41.0
Chlorobenzene	2305754	98.7	99.7	1.35	100	37.0 - 160	97.4	98.4	ug/L	1.02	53.0
Chloroethane	2305754	90.7	90.4	1.35	100	14.0 - 230	89.4	89.0	ug/L	0.336	78.0
Chloroform	2305754	101	105	1.35	100	51.0 - 138	99.6	104	ug/L	3.94	54.0
Chloromethane (Methyl Chloride)	2305754	80.2	78.5	1.35	100	0.100 - 273	78.8	77.2	ug/L	2.18	60.0
cis-1,3-Dichloropropene	2305754	92.9	92.6	1.35	100	0.100 - 227	91.6	91.2	ug/L	0.328	58.0
Dibromochloromethane	2305754	95.8	97.6	1.35	100	53.0 - 149	94.4	96.2	ug/L	1.89	50.0
Dichloromethane	2305754	105	104	1.35	100	0.100 - 221	104	103	ug/L	0.969	28.0
Ethylbenzene	2305754	103	104	1.35	100	37.0 - 162	102	103	ug/L	0.979	63.0
m-Dichlorobenzene (1,3-DCB)	2305754	106	107	1.35	100	59.0 - 156	105	106	ug/L	0.951	43.0
Methyl ethyl ketone (Butanone)	2305754	127	135	11.0	100	0.100 - 211	116	124	ug/L	6.67	30.0
o-Dichlorobenzene (1,2-DCB)	2305754	103	104	1.35	100	18.0 - 190	102	103	ug/L	0.979	57.0
p-Dichlorobenzene (1,4-DCB)	2305754	101	100	1.35	100	18.0 - 190	99.6	98.6	ug/L	1.01	57.0
Tetrachloroethylene	2305754	102	103	1.35	100	64.0 - 148	101	102	ug/L	0.989	39.0
Toluene	2305754	96.4	95.6	1.35	100	47.0 - 150	95.0	94.2	ug/L	0.845	41.0
trans-1,2-Dichloroethylene	2305754	96.6	94.2	1.35	100	54.0 - 156	95.2	92.8	ug/L	2.55	45.0
trans-1,3-Dichloropropene	2305754	98.9	103	1.35	100	17.0 - 183	97.6	102	ug/L	4.12	86.0
Trichloroethylene	2305754	104	103	1.35	100	70.0 - 157	103	102	ug/L	0.979	48.0
Vinyl chloride	2305754	82.4	82.4	1.35	100	0.100 - 251	81.0	81.0	ug/L	0	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123030	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423573
1,2-DCA-d4 (SURR)	1123030	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423574
1,2-DCA-d4 (SURR)	1123030	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423576
Bromofluorobenzene (SURR)	1123030	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423573
Bromofluorobenzene (SURR)	1123030	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423574
Bromofluorobenzene (SURR)	1123030	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423576
Dibromofluoromethane (SURR)	1123030	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423573
Dibromofluoromethane (SURR)	1123030	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423574
Dibromofluoromethane (SURR)	1123030	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423576
TolueneD8 (SURR)	1123030	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423573
TolueneD8 (SURR)	1123030	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423574
TolueneD8 (SURR)	1123030	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423576
1,2-DCA-d4 (SURR)	2305623	Unknown	21.5	20.0	ug/L	108	70.0 - 130	126423579

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SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423579
Dibromofluoromethane (SURR)	2305623	Unknown	19.6	20.0	ug/L	98.0	70.0 - 130	126423579
TolueneD8 (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423579
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423581
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423582
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423581
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423582
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423581
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423582
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423581
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423582

Analytical Set

1123033

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1123033	174	140	1.3	0 - 2.00	126423603
BFB Mass 174	1123033	95.0	10384	56.9	50.0 - 100	126423603
BFB Mass 175	1123033	174	921	8.9	5.00 - 9.00	126423603
BFB Mass 176	1123033	174	10267	98.9	95.0 - 101	126423603
BFB Mass 177	1123033	176	672	6.5	5.00 - 9.00	126423603
BFB Mass 50	1123033	95.0	4030	22.1	15.0 - 40.0	126423603
BFB Mass 75	1123033	95.0	9801	53.7	30.0 - 60.0	126423603
BFB Mass 95	1123033	95.0	18235	100.0	100 - 100	126423603
BFB Mass 96	1123033	95.0	1272	7.0	5.00 - 9.00	126423603

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Acrolein	1123033	ND	2.33	4.00	ug/L	126423607
Acrylonitrile	1123033	ND	0.998	1.00	ug/L	126423607

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	99990	99910	49960	149900	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	100400	99910	49960	149900	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	91680	99910	49960	149900	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	210300	205900	103000	308900	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	208900	205900	103000	308900	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	212500	205900	103000	308900	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	85540	99910	49960	149900	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	196700	205900	103000	308900	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423612	1123033

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SPAC-R

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	11.97	11.97	11.91	12.03	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	11.97	11.97	11.91	12.03	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	11.97	11.97	11.91	12.03	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	9.597	9.597	9.537	9.657	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	9.597	9.597	9.537	9.657	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	9.597	9.597	9.537	9.657	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423612	1123033

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1123033	60.6	52.2	40.0	60.0 - 140	152 *	130	ug/L	15.6	30.0
Acrylonitrile	1123033	43.8	46.4	40.0	60.0 - 140	110	116	ug/L	5.31	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2305754	21.3	13.6	ND	200	40.0 - 160	10.6 *	6.80 *	ug/L	44.1	60.0
Acrylonitrile	2305754	251	247	ND	200	40.0 - 160	126	124	ug/L	1.61	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123033	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423604
1,2-DCA-d4 (SURR)	1123033	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423605
1,2-DCA-d4 (SURR)	1123033	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423607
Bromofluorobenzene (SURR)	1123033	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423604
Bromofluorobenzene (SURR)	1123033	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423605
Bromofluorobenzene (SURR)	1123033	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423607
Dibromofluoromethane (SURR)	1123033	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423604
Dibromofluoromethane (SURR)	1123033	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423605
Dibromofluoromethane (SURR)	1123033	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423607
TolueneD8 (SURR)	1123033	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423604
TolueneD8 (SURR)	1123033	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423605
TolueneD8 (SURR)	1123033	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423607
1,2-DCA-d4 (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423608
Bromofluorobenzene (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423608
Dibromofluoromethane (SURR)	2305623	Unknown	19.0	20.0	ug/L	95.0	70.0 - 130	126423608
TolueneD8 (SURR)	2305623	Unknown	19.5	20.0	ug/L	97.5	70.0 - 130	126423608
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423611
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423612
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423611
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423612
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423611

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QUALITY CONTROL



SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423612
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423611
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423612

Analytical Set

1123853

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1123138	ND	0.202	0.202	ug/L	126443786
PCB-1221	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1232	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1242	1123138	ND	0.192	0.200	ug/L	126443786
PCB-1248	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1254	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1260	1123138	ND	0.161	0.200	ug/L	126443786
PCB-1262	1123138	ND	0.198	0.200	ug/L	126443786
PCB-1268	1123138	ND	0.143	0.200	ug/L	126443786

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	983	1000	ug/L	98.3	80.0 - 115	126443779
PCB-1016	1060	1000	ug/L	106	80.0 - 115	126443785
PCB-1016	1130	1000	ug/L	113	80.0 - 115	126443793
PCB-1260	881	1000	ug/L	88.1	80.0 - 115	126443779
PCB-1260	911	1000	ug/L	91.1	80.0 - 115	126443785
PCB-1260	945	1000	ug/L	94.5	80.0 - 115	126443793

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1123138	798	887	1000	39.8 - 135	79.8	88.7	ug/L	10.6	30.0
PCB-1260	1123138	649	755	1000	36.1 - 134	64.9	75.5	ug/L	15.1	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1123138	Blank	45.3	100	ug/L	45.3	10.0 - 200	126443786
Tetrachloro-m-Xylene (Surr)	1123138	Blank	48.5	100	ug/L	48.5	10.0 - 200	126443786
Decachlorobiphenyl	2305623	Unknown	0.580	0.976	ug/L	59.4	10.0 - 200	126443791
Tetrachloro-m-Xylene (Surr)	2305623	Unknown	0.578	0.976	ug/L	59.2	10.0 - 200	126443791

Analytical Set

1124948

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1124341	ND	5.00	30.0	ug/L	126470972

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	150000	150000	ug/L	99.8	70.0 - 130	126470971

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SPAC-R

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Nonylphenol	164000	150000	ug/L	110	70.0 - 130	126470983

IS Areas

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>	
Acenaphthene-d10-ISTD	624841	CCV	669900	669900	335000	1005000	126470971	624841	
Acenaphthene-d10-ISTD	624841	CCV	645200	669900	335000	1005000	126470983	624841	
Phenanthrene-d10-ISTD	624841	CCV	892600	892600	446300	1339000	126470971	624841	
Phenanthrene-d10-ISTD	624841	CCV	934700	892600	446300	1339000	126470983	624841	
Acenaphthene-d10-ISTD	1124341	Blank	1550000	669900	335000	1005000	*	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	1124000	669900	335000	1005000	*	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	1144000	669900	335000	1005000	*	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	1577000	892600	446300	1339000	*	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	1107000	892600	446300	1339000	*	126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	1139000	892600	446300	1339000	*	126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	1184000	669900	335000	1005000	*	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	892600	892600	446300	1339000	*	126470977	1124341

IS RetTime

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>
Acenaphthene-d10-ISTD	624841	CCV	7.217	7.217	7.157	7.277	126470971	624841
Acenaphthene-d10-ISTD	624841	CCV	7.211	7.217	7.157	7.277	126470983	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470971	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470983	624841
Acenaphthene-d10-ISTD	1124341	Blank	7.211	7.217	7.157	7.277	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	7.211	7.217	7.157	7.277	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	7.211	7.217	7.157	7.277	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	8.450	8.450	8.390	8.510	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	8.455	8.450	8.390	8.510	126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	8.456	8.450	8.390	8.510	126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	7.211	7.217	7.157	7.277	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	8.456	8.450	8.390	8.510	126470977	1124341

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Nonylphenol	1124341	49.1	72.7	150	56.0 - 112	32.7 *	48.5 *	ug/L	38.9 *	30.0

Surrogate

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
4-Nonylphenol-SURR	624841	CCV	28300	25000	ug/L	113	50.0 - 130	126470971
4-Nonylphenol-SURR	624841	CCV	29600	25000	ug/L	118	50.0 - 130	126470983
4-Nonylphenol-SURR	1124341	Blank	14700	25000	ug/L	58.8	50.0 - 130	126470972
4-Nonylphenol-SURR	1124341	LCS	16200	25000	ug/L	64.8	50.0 - 130	126470973
4-Nonylphenol-SURR	1124341	LCS Dup	24000	25000	ug/L	96.0	50.0 - 130	126470974
4-Nonylphenol-SURR	2305623	Unknown	32.6	29.0	ug/L	112	50.0 - 130	126470977

Analytical Set

1125008

EPA 625.1

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QUALITY CONTROL



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1123370	ND	1.03	1.03	ug/L	126472016
1,2,4-Trichlorobenzene	1123370	ND	0.941	1.00	ug/L	126472016
1,2-Dichlorobenzene	1123370	ND	1.04	5.00	ug/L	126472016
1,2-DPH (as azobenzene)	1123370	ND	0.238	1.00	ug/L	126472016
1,3-Dichlorobenzene	1123370	ND	0.954	5.00	ug/L	126472016
1,4-Dichlorobenzene	1123370	ND	1.01	5.00	ug/L	126472016
2,4,5-Trichlorophenol	1123370	ND	0.961	5.00	ug/L	126472016
2,4,6-Trichlorophenol	1123370	ND	1.24	2.00	ug/L	126472016
2,4-Dichlorophenol	1123370	ND	0.222	1.00	ug/L	126472016
2,4-Dimethylphenol	1123370	ND	0.536	1.00	ug/L	126472016
2,4-Dinitrophenol	1123370	ND	1.34	2.00	ug/L	126472016
2,4-Dinitrotoluene	1123370	ND	1.35	2.00	ug/L	126472016
2,6-Dinitrotoluene	1123370	ND	1.29	2.00	ug/L	126472016
2-Chloronaphthalene	1123370	ND	0.150	1.00	ug/L	126472016
2-Chlorophenol	1123370	ND	0.275	1.00	ug/L	126472016
2-Methylphenol (o-Cresol)	1123370	ND	8.48	10.0	ug/L	126472016
2-Nitrophenol	1123370	ND	0.554	1.00	ug/L	126472016
3&4-Methylphenol (m&p-Cresol)	1123370	ND	7.78	8.00	ug/L	126472016
3,3'-Dichlorobenzidine	1123370	ND	1.39	2.00	ug/L	126472016
4,6-Dinitro-2-methylphenol	1123370	ND	1.15	2.00	ug/L	126472016
4-Bromophenyl phenyl ether	1123370	ND	0.772	1.00	ug/L	126472016
4-Chlorophenyl phenyl ethe	1123370	ND	0.202	1.00	ug/L	126472016
4-Nitrophenol	1123370	ND	0.789	1.00	ug/L	126472016
Acenaphthene	1123370	ND	0.177	1.00	ug/L	126472016
Acenaphthylene	1123370	ND	0.240	1.00	ug/L	126472016
Aniline	1123370	ND	2470	2470	ug/L	126472016
Anthracene	1123370	ND	0.241	1.00	ug/L	126472016
Benzidine	1123370	ND	1.40	1.50	ug/L	126472016
Benzo(a)anthracene	1123370	ND	0.225	1.00	ug/L	126472016
Benzo(a)pyrene	1123370	ND	0.900	1.00	ug/L	126472016
Benzo(b)fluoranthene	1123370	ND	0.547	1.00	ug/L	126472016
Benzo(ghi)perylene	1123370	ND	0.881	1.00	ug/L	126472016
Benzo(k)fluoranthene	1123370	ND	0.252	1.00	ug/L	126472016
Benzyl Butyl phthalate	1123370	0.320	0.204	7.50	ug/L	126472016
Bis(2-chloroethoxy)methane	1123370	ND	0.277	1.00	ug/L	126472016
Bis(2-chloroethyl)ether	1123370	ND	0.348	1.00	ug/L	126472016
Bis(2-chloroisopropyl)ether	1123370	ND	0.738	1.00	ug/L	126472016
Bis(2-ethylhexyl)phthalate	1123370	ND	1.12	7.50	ug/L	126472016
Chrysene (Benzo(a)phenanthrene)	1123370	ND	0.289	1.00	ug/L	126472016
Dibenz(a,h)anthracene	1123370	ND	0.689	1.00	ug/L	126472016
Diethyl phthalate	1123370	ND	0.253	5.70	ug/L	126472016
Dimethyl phthalate	1123370	ND	0.540	4.80	ug/L	126472016
Di-n-butylphthalate	1123370	ND	0.978	7.50	ug/L	126472016
Di-n-octylphthalate	1123370	ND	1.92	2.00	ug/L	126472016
Fluoranthene(Benzo(j,k)fluorene)	1123370	ND	0.318	1.00	ug/L	126472016

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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Fluorene	1123370	ND	0.275	1.00	ug/L	126472016
Hexachlorobenzene	1123370	ND	0.871	1.00	ug/L	126472016
Hexachlorobutadiene	1123370	ND	1.03	1.03	ug/L	126472016
Hexachlorocyclopentadiene	1123370	ND	0.536	1.00	ug/L	126472016
Hexachloroethane	1123370	ND	1.05	2.00	ug/L	126472016
Indeno(1,2,3-cd)pyrene	1123370	ND	0.596	1.00	ug/L	126472016
Isophorone	1123370	ND	0.429	1.00	ug/L	126472016
Naphthalene	1123370	ND	0.225	1.00	ug/L	126472016
Nitrobenzene	1123370	ND	0.271	1.00	ug/L	126472016
n-Nitrosodiethylamine	1123370	ND	0.747	1.00	ug/L	126472016
N-Nitrosodimethylamine	1123370	ND	0.542	1.00	ug/L	126472016
n-Nitroso-di-n-butylamine	1123370	ND	0.210	1.00	ug/L	126472016
N-Nitrosodi-n-propylamine	1123370	ND	0.425	1.00	ug/L	126472016
N-Nitrosodiphenylamine (as DPA)	1123370	ND	0.404	1.00	ug/L	126472016
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	ND	0.588	1.00	ug/L	126472016
Pentachlorobenzene	1123370	ND	0.977	1.00	ug/L	126472016
Pentachlorophenol	1123370	ND	0.960	5.00	ug/L	126472016
Phenanthrene	1123370	ND	0.269	1.00	ug/L	126472016
Phenol	1123370	ND	0.332	1.00	ug/L	126472016
Pyrene	1123370	ND	0.291	1.00	ug/L	126472016
Pyridine	1123370	ND	1.35	1.35	ug/L	126472016

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
1,2,4,5-Tetrachlorobenzene	48400	50000	ug/L	96.8	60.0 - 140	126472015
1,2,4-Trichlorobenzene	50400	50000	ug/L	101	61.0 - 130	126472015
1,2-Dichlorobenzene	45200	50000	ug/L	90.4	60.0 - 140	126472015
1,2-DPH (as azobenzene)	48600	50000	ug/L	97.2	60.0 - 140	126472015
1,3-Dichlorobenzene	49100	50000	ug/L	98.2	60.0 - 140	126472015
1,4-Dichlorobenzene	45300	50000	ug/L	90.6	60.0 - 140	126472015
2,4,5-Trichlorophenol	49800	50000	ug/L	99.6	69.0 - 130	126472015
2,4,6-Trichlorophenol	47800	50000	ug/L	95.6	69.0 - 130	126472015
2,4-Dichlorophenol	47300	50000	ug/L	94.6	64.0 - 130	126472015
2,4-Dimethylphenol	43300	50000	ug/L	86.6	58.0 - 130	126472015
2,4-Dinitrophenol	46400	50000	ug/L	92.8	39.0 - 173	126472015
2,4-Dinitrotoluene	45900	50000	ug/L	91.8	53.0 - 130	126472015
2,6-Dinitrotoluene	50200	50000	ug/L	100	68.0 - 137	126472015
2-Chloronaphthalene	52700	50000	ug/L	105	70.0 - 130	126472015
2-Chlorophenol	48600	50000	ug/L	97.2	55.0 - 130	126472015
2-Methylphenol (o-Cresol)	43400	50000	ug/L	86.8	60.0 - 140	126472015
2-Nitrophenol	49800	50000	ug/L	99.6	61.0 - 163	126472015
3&4-Methylphenol (m&p-Cresol)	41100	50000	ug/L	82.2	60.0 - 140	126472015
3,3'-Dichlorobenzidine	56400	50000	ug/L	113	18.0 - 213	126472015
4,6-Dinitro-2-methylphenol	43200	50000	ug/L	86.4	56.0 - 130	126472015
4-Bromophenyl phenyl ether	49000	50000	ug/L	98.0	70.0 - 130	126472015

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
4-Chlorophenyl phenyl ethe	46000	50000	ug/L	92.0	57.0 - 145	126472015
4-Nitrophenol	34100	50000	ug/L	68.2	35.0 - 135	126472015
Acenaphthene	48200	50000	ug/L	96.4	70.0 - 130	126472015
Acenaphthylene	50500	50000	ug/L	101	60.0 - 130	126472015
Aniline	41400	50000	ug/L	82.8	60.0 - 140	126472015
Anthracene	46800	50000	ug/L	93.6	58.0 - 130	126472015
Benzidine	25700	50000	ug/L	51.4	20.0 - 180	126472015
Benzo(a)anthracene	53100	50000	ug/L	106	42.0 - 133	126472015
Benzo(a)pyrene	52600	50000	ug/L	105	32.0 - 148	126472015
Benzo(b)fluoranthene	49800	50000	ug/L	99.6	42.0 - 140	126472015
Benzo(ghi)perylene	61200	50000	ug/L	122	13.0 - 195	126472015
Benzo(k)fluoranthene	53200	50000	ug/L	106	25.0 - 146	126472015
Benzyl Butyl phthalate	65700	50000	ug/L	131	43.0 - 140	126472015
Bis(2-chloroethoxy)methane	51200	50000	ug/L	102	52.0 - 164	126472015
Bis(2-chloroethyl)ether	49000	50000	ug/L	98.0	52.0 - 130	126472015
Bis(2-chloroisopropyl)ether	47200	50000	ug/L	94.4	63.0 - 139	126472015
Bis(2-ethylhexyl)phthalate	67700	50000	ug/L	135	43.0 - 137	126472015
Chrysene (Benzo(a)phenanthrene)	53500	50000	ug/L	107	44.0 - 140	126472015
Dibenz(a,h)anthracene	57200	50000	ug/L	114	13.0 - 200	126472015
Diethyl phthalate	44300	50000	ug/L	88.6	47.0 - 130	126472015
Dimethyl phthalate	48700	50000	ug/L	97.4	50.0 - 130	126472015
Di-n-butylphthalate	47800	50000	ug/L	95.6	52.0 - 130	126472015
Di-n-octylphthalate	72400	50000	ug/L	145	21.0 - 132 *	126472015
Fluoranthene(Benzo(j,k)fluorene)	45100	50000	ug/L	90.2	47.0 - 130	126472015
Fluorene	45800	50000	ug/L	91.6	70.0 - 130	126472015
Hexachlorobenzene	50300	50000	ug/L	101	38.0 - 142	126472015
Hexachlorobutadiene	41900	50000	ug/L	83.8	68.0 - 130	126472015
Hexachlorocyclopentadiene	58200	50000	ug/L	116	60.0 - 140	126472015
Hexachloroethane	42200	50000	ug/L	84.4	55.0 - 130	126472015
Indeno(1,2,3-cd)pyrene	56400	50000	ug/L	113	13.0 - 151	126472015
Isophorone	54600	50000	ug/L	109	52.0 - 180	126472015
Naphthalene	45000	50000	ug/L	90.0	70.0 - 130	126472015
Nitrobenzene	49200	50000	ug/L	98.4	54.0 - 158	126472015
n-Nitrosodiethylamine	52800	50000	ug/L	106	60.0 - 140	126472015
N-Nitrosodimethylamine	49200	50000	ug/L	98.4	60.0 - 140	126472015
n-Nitroso-di-n-butylamine	46000	50000	ug/L	92.0	60.0 - 140	126472015
N-Nitrosodi-n-propylamine	44900	50000	ug/L	89.8	59.0 - 170	126472015
N-Nitrosodiphenylamine (as DPA	42400	50000	ug/L	84.8	60.0 - 140	126472015
p-Chloro-m-Cresol (4-Chloro-3-me	43900	50000	ug/L	87.8	68.0 - 130	126472015
Pentachlorobenzene	45900	50000	ug/L	91.8	60.0 - 140	126472015
Pentachlorophenol	45500	50000	ug/L	91.0	42.0 - 152	126472015
Phenanthrene	43800	50000	ug/L	87.6	67.0 - 130	126472015
Phenol	43300	50000	ug/L	86.6	48.0 - 130	126472015
Pyrene	61200	50000	ug/L	122	70.0 - 130	126472015
Pyridine	55600	50000	ug/L	111	60.0 - 140	126472015

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 127	625102	198	5830	54.7	40.0 - 60.0	126472013
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126472013
DFTPP Mass 198	625102	198	10662	100.0	100 - 100	126472013
DFTPP Mass 199	625102	198	719	6.7	5.00 - 9.00	126472013
DFTPP Mass 275	625102	198	3008	28.2	10.0 - 30.0	126472013
DFTPP Mass 365	625102	198	568	5.3	1.00 - 100	126472013
DFTPP Mass 441	625102	443	968	54.8	0 - 100	126472013
DFTPP Mass 442	625102	198	9092	85.3	40.0 - 100	126472013
DFTPP Mass 443	625102	442	1766	19.4	17.0 - 23.0	126472013
DFTPP Mass 51	625102	198	3355	31.5	30.0 - 60.0	126472013
DFTPP Mass 68	625102	69.0	2	0.1	0 - 2.00	126472013
DFTPP Mass 69	625102	198	3774	35.4	0 - 100	126472013
DFTPP Mass 70	625102	69.0	19	0.5	0 - 2.00	126472013

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1123370	8.56	7.91	12.5	27.5 - 85.5	68.5	63.3	ug/L	7.89	50.0
1,2,4-Trichlorobenzene	1123370	7.85	7.36	12.5	44.0 - 142	62.8	58.9	ug/L	6.41	50.0
1,2-Dichlorobenzene	1123370	7.39	7.33	12.5	23.0 - 81.8	59.1	58.6	ug/L	0.850	50.0
1,2-DPH (as azobenzene)	1123370	10.1	10.8	12.5	12.6 - 110	80.8	86.4	ug/L	6.70	50.0
1,3-Dichlorobenzene	1123370	7.20	6.99	12.5	21.1 - 80.5	57.6	55.9	ug/L	3.00	50.0
1,4-Dichlorobenzene	1123370	7.05	6.92	12.5	21.4 - 76.9	56.4	55.4	ug/L	1.79	50.0
2,4,5-Trichlorophenol	1123370	8.80	10.9	12.5	51.3 - 109	70.4	87.2	ug/L	21.3	50.0
2,4,6-Trichlorophenol	1123370	12.9	10.7	12.5	37.0 - 144	103	85.6	ug/L	18.5	58.0
2,4-Dichlorophenol	1123370	10.0	9.85	12.5	39.0 - 135	80.0	78.8	ug/L	1.51	50.0
2,4-Dimethylphenol	1123370	4.48	3.06	12.5	23.0 - 120	35.8	24.5	ug/L	37.5	68.0
2,4-Dinitrophenol	1123370	7.87	10.0	12.5	0.100 - 191	63.0	80.0	ug/L	23.8	132
2,4-Dinitrotoluene	1123370	7.76	10.3	12.5	39.0 - 139	62.1	82.4	ug/L	28.1	42.0
2,6-Dinitrotoluene	1123370	10.6	11.2	12.5	50.0 - 158	84.8	89.6	ug/L	5.50	48.0
2-Chloronaphthalene	1123370	11.0	9.44	12.5	60.0 - 120	88.0	75.5	ug/L	15.3	24.0
2-Chlorophenol	1123370	9.81	9.73	12.5	23.0 - 134	78.5	77.8	ug/L	0.896	61.0
2-Methylphenol (o-Cresol)	1123370	8.90	8.25	12.5	38.9 - 76.1	71.2	66.0	ug/L	7.58	50.0
2-Nitrophenol	1123370	10.3	9.68	12.5	29.0 - 182	82.4	77.4	ug/L	6.26	55.0
3&4-Methylphenol (m&p-Cresol)	1123370	7.92	7.53	12.5	33.0 - 70.4	63.4	60.2	ug/L	5.18	50.0
3,3'-Dichlorobenzidine	1123370	8.29	8.76	12.5	0.100 - 262	66.3	70.1	ug/L	5.57	108
4,6-Dinitro-2-methylphenol	1123370	9.49	9.53	12.5	0.100 - 181	75.9	76.2	ug/L	0.394	203
4-Bromophenyl phenyl ether	1123370	10.5	9.96	12.5	53.0 - 127	84.0	79.7	ug/L	5.25	43.0
4-Chlorophenyl phenyl ethe	1123370	8.68	8.26	12.5	25.0 - 158	69.4	66.1	ug/L	4.87	61.0
4-Nitrophenol	1123370	3.31	3.46	12.5	0.100 - 132	26.5	27.7	ug/L	4.43	131
Acenaphthene	1123370	9.39	9.40	12.5	47.0 - 145	75.1	75.2	ug/L	0.133	48.0
Acenaphthylene	1123370	9.98	9.91	12.5	33.0 - 145	79.8	79.3	ug/L	0.629	74.0
Aniline	1123370	6760	7050	12500	70.0 - 130	54.1 *	56.4 *	ug/L	4.16	50.0
Anthracene	1123370	9.54	10.3	12.5	27.0 - 133	76.3	82.4	ug/L	7.69	66.0
Benzidine	1123370	0.830	0.290	12.5	0.100 - 36.9	6.64	2.32	ug/L	96.4 *	90.0
Benzo(a)anthracene	1123370	10.1	10.6	12.5	33.0 - 143	80.8	84.8	ug/L	4.83	53.0

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SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1106094

Printed 06/26/2024

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Benzo(a)pyrene	1123370	9.62	10.3	12.5	17.0 - 163	77.0	82.4	ug/L	6.78	72.0
Benzo(b)fluoranthene	1123370	9.52	9.98	12.5	24.0 - 159	76.2	79.8	ug/L	4.62	71.0
Benzo(ghi)perylene	1123370	11.4	11.7	12.5	0.100 - 219	91.2	93.6	ug/L	2.60	97.0
Benzo(k)fluoranthene	1123370	10.1	11.8	12.5	11.0 - 162	80.8	94.4	ug/L	15.5	63.0
Benzyl Butyl phthalate	1123370	13.3	14.0	12.5	0.100 - 152	106	112	ug/L	5.50	60.0
Bis(2-chloroethoxy)methane	1123370	10.6	10.1	12.5	33.0 - 184	84.8	80.8	ug/L	4.83	54.0
Bis(2-chloroisopropyl)ether	1123370	9.61	9.45	12.5	12.0 - 158	76.9	75.6	ug/L	1.70	108
Bis(2-chloroisopropyl)ether	1123370	9.85	9.68	12.5	36.0 - 166	78.8	77.4	ug/L	1.79	76.0
Bis(2-ethylhexyl)phthalate	1123370	14.4	15.7	12.5	8.00 - 158	115	126	ug/L	9.13	82.0
Chrysene (Benzo(a)phenanthrene)	1123370	10.2	10.9	12.5	17.0 - 168	81.6	87.2	ug/L	6.64	87.0
Dibenz(a,h)anthracene	1123370	10.6	10.6	12.5	0.100 - 227	84.8	84.8	ug/L	0	126
Diethyl phthalate	1123370	10.2	10.3	12.5	0.100 - 120	81.6	82.4	ug/L	0.976	100
Dimethyl phthalate	1123370	10.7	10.9	12.5	0.100 - 120	85.6	87.2	ug/L	1.85	183
Di-n-butylphthalate	1123370	10.9	11.3	12.5	1.00 - 120	87.2	90.4	ug/L	3.60	47.0
Di-n-octylphthalate	1123370	12.7	14.1	12.5	4.00 - 146	102	113	ug/L	10.2	69.0
Fluoranthene(Benzo(j,k)fluorene)	1123370	8.22	9.10	12.5	26.0 - 137	65.8	72.8	ug/L	10.1	66.0
Fluorene	1123370	9.42	8.92	12.5	59.0 - 121	75.4	71.4	ug/L	5.45	38.0
Hexachlorobenzene	1123370	9.89	9.38	12.5	0.100 - 152	79.1	75.0	ug/L	5.32	55.0
Hexachlorobutadiene	1123370	5.50	5.15	12.5	24.0 - 120	44.0	41.2	ug/L	6.57	62.0
Hexachlorocyclopentadiene	1123370	4.95	5.88	12.5	3.97 - 68.7	39.6	47.0	ug/L	17.1	50.0
Hexachloroethane	1123370	6.02	5.94	12.5	40.0 - 120	48.2	47.5	ug/L	1.46	52.0
Indeno(1,2,3-cd)pyrene	1123370	10.6	10.6	12.5	0.100 - 171	84.8	84.8	ug/L	0	99.0
Isophorone	1123370	9.51	9.45	12.5	21.0 - 196	76.1	75.6	ug/L	0.659	93.0
Naphthalene	1123370	8.38	8.02	12.5	21.0 - 133	67.0	64.2	ug/L	4.27	65.0
Nitrobenzene	1123370	9.82	9.26	12.5	35.0 - 180	78.6	74.1	ug/L	5.89	62.0
n-Nitrosodiethylamine	1123370	9.08	9.19	12.5	18.0 - 100	72.6	73.5	ug/L	1.23	50.0
N-Nitrosodimethylamine	1123370	6.81	7.02	12.5	30.2 - 74.9	54.5	56.2	ug/L	3.07	50.0
n-Nitroso-di-n-butylamine	1123370	9.13	9.24	12.5	48.4 - 98.5	73.0	73.9	ug/L	1.23	50.0
N-Nitrosodi-n-propylamine	1123370	9.57	9.45	12.5	0.100 - 230	76.6	75.6	ug/L	1.31	87.0
N-Nitrosodiphenylamine (as DPA)	1123370	11.2	10.9	12.5	49.3 - 94.2	89.6	87.2	ug/L	2.71	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	9.26	9.52	12.5	22.0 - 147	74.1	76.2	ug/L	2.79	70.0
Pentachlorobenzene	1123370	7.91	7.85	12.5	39.3 - 93.7	63.3	62.8	ug/L	0.793	50.0
Pentachlorophenol	1123370	9.96	10.9	12.5	14.0 - 176	79.7	87.2	ug/L	8.99	86.0
Phenanthrene	1123370	10.4	10.7	12.5	54.0 - 120	83.2	85.6	ug/L	2.84	39.0
Phenol	1123370	4.83	4.79	12.5	5.00 - 120	38.6	38.3	ug/L	0.780	64.0
Pyrene	1123370	12.6	13.3	12.5	52.0 - 120	101	106	ug/L	4.83	49.0
Pyridine	1123370	7.99	6.84	12.5	11.2 - 50.6	63.9 *	54.7 *	ug/L	15.5	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126472015
2-Fluorophenol-SURR	625306	CCV	53500	100000	ug/L	53.5	10.0 - 150	126472015
4-Terphenyl-d14-SURR	625306	CCV	56500	50000	ug/L	113	30.0 - 150	126472015
Nitrobenzene-d5-SURR	625306	CCV	53100	50000	ug/L	106	30.0 - 150	126472015
Phenol-d6-SURR	625306	CCV	49000	100000	ug/L	49.0	10.0 - 150	126472015

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	1123370	Blank	54.5	100	ug/L	54.5	10.0 - 150	126472016
2,4,6-Tribromophenol	1123370	LCS	50.5	100	ug/L	50.5	10.0 - 150	126472017
2,4,6-Tribromophenol	1123370	LCS Dup	54.4	100	ug/L	54.4	10.0 - 150	126472018
2-Fluorophenol-SURR	1123370	Blank	35000	100000	ug/L	35.0	10.0 - 150	126472016
2-Fluorophenol-SURR	1123370	LCS	33200	100000	ug/L	33.2	10.0 - 150	126472017
2-Fluorophenol-SURR	1123370	LCS Dup	31900	100000	ug/L	31.9	10.0 - 150	126472018
4-Terphenyl-d14-SURR	1123370	Blank	37600	50000	ug/L	75.2	30.0 - 150	126472016
4-Terphenyl-d14-SURR	1123370	LCS	22800	50000	ug/L	45.6	30.0 - 150	126472017
4-Terphenyl-d14-SURR	1123370	LCS Dup	23700	50000	ug/L	47.4	30.0 - 150	126472018
Nitrobenzene-d5-SURR	1123370	Blank	35200	50000	ug/L	70.4	30.0 - 150	126472016
Nitrobenzene-d5-SURR	1123370	LCS	19800	50000	ug/L	39.6	30.0 - 150	126472017
Nitrobenzene-d5-SURR	1123370	LCS Dup	18500	50000	ug/L	37.0	30.0 - 150	126472018
Phenol-d6-SURR	1123370	Blank	26200	100000	ug/L	26.2	10.0 - 150	126472016
Phenol-d6-SURR	1123370	LCS	24500	100000	ug/L	24.5	10.0 - 150	126472017
Phenol-d6-SURR	1123370	LCS Dup	24200	100000	ug/L	24.2	10.0 - 150	126472018
2,4,6-Tribromophenol	2305623	Unknown	62.7	106	ug/L	59.2	10.0 - 150	126472019
2-Fluorophenol-SURR	2305623	Unknown	40.7	106	ug/L	38.4	10.0 - 150	126472019
4-Terphenyl-d14-SURR	2305623	Unknown	43.4	53.2	ug/L	81.6	30.0 - 150	126472019
Nitrobenzene-d5-SURR	2305623	Unknown	35.0	53.2	ug/L	65.8	30.0 - 150	126472019
Phenol-d6-SURR	2305623	Unknown	31.0	106	ug/L	29.2	10.0 - 150	126472019

Analytical Set

1123135

SM 4500-P E-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.0639	0.060	mg/L	106	70.0 - 130	126425460

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Phosphorus (as P), total	1123135	ND	0.010	0.030	mg/L	126425459

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.305	0.300	mg/L	102	90.0 - 110	126425461
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425476
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425489

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Phosphorus (as P), total	1123135	0.297	0.319	0.300	80.0 - 120	99.0	106	mg/L	7.14	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Phosphorus (as P), total	2305933	0.128	0.134	0.100	0.150	70.0 - 130	18.7 *	22.7 *	mg/L	19.4	20.0

Analytical Set

1123173

SM 2320 B-2011

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QUALITY CONTROL



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Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1123173	ND	1.00	1.00	mg/L	126425785

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	27.3	25.0	mg/L	109	90.0 - 110	126425784
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425798
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425811

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2305590	106	107	mg/L	0.939	20.0
Total Alkalinity (as CaCO3)	2305698	136	136	mg/L	0	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126425783

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2305590	130	107	25.0	mg/L	92.0	70.0 - 130	126425788
Total Alkalinity (as CaCO3)	2305698	159	136	25.0	mg/L	92.0	70.0 - 130	126425801

Analytical Set 1123591

SM 5220 D-2011

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chemical Oxygen Demand	434	400	mg/L	108	90.0 - 110	126436305

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chemical Oxygen Demand	2305419	33.6	33.6	mg/L	0	20.0
Chemical Oxygen Demand	2305557	21.9	21.9	mg/L	0	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Chemical Oxygen Demand	1123591	216	200	mg/L	108	90.0 - 110	126436306

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Chemical Oxygen Demand	2305419	245	33.6	200	mg/L	106	80.0 - 120	126436309
Chemical Oxygen Demand	2305557	222	21.9	200	mg/L	100	80.0 - 120	126436312

Analytical Set 1123697

SM 2130 B-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

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QUALITY CONTROL



SPAC-R

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Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); ICV - Initial Calibration Verification; CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; MRL Check - Minimum Reporting Limit Check Std; LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); LDR - Linear Dynamic Range Standard; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



1106094 CoC Print Group 001 of 001

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SPL
The Science of Sure

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CHAIN OF CUSTODY

SPACE
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

**SPAC-R
194**

Lab Number 1106094
PO Number 2705423 Mandatory
Phone 956/543-6688

Waste Water

RETENTION POND

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 6/6/24 Time: 13:30
Sampler Printed Name: CAROLYN WOOD
Sampler Affiliation: SPAC
Sampler Signature: [Signature]

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

On Site Testing

NELAC C120 C12 Res., Total(Onsite)Spec Mid SM 4500-C1 G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RJL Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

C12k Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RDI Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

NELAC Short Hold Cr6P Hex Cr, Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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CHAIN OF CUSTODY

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SPACE X
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**SPAC-R
194**

Hex Cr, Field Preservation

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R01 Date 6/6/24 Time 13:33

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R01 Date 6/6/24 Time 13:35

Results 7.07 Units mg/L ^{sw myll} Temp. 39.0 C Duplicate 7.15 Units mg/L Temp. 39.0 C

NELAC Short Hold pH pH (Onsite) SM 4500-H+ B-2011 (0.0104 days)

pH (Onsite)

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R02 Date 6/6/24 Time 13:38

Results 8.60 Units mg/L ^{R02 SV} Temp. 39.0 C Duplicate 7.15 Units mg/L ^{SV R01} Temp. 39.0 C

S2Cr Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R02 Date 6/6/24 Time 13:43

Results NEGATIVE Units --- Temp. 39.0 C Duplicate NEGATIVE Units --- Temp. 39.0 C
R1 --- R2 --- QCR1 --- QCR2 ---

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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SPAC-R
194

Temperature (onsite)

Collected By CW Date 6/6/19 Time 13:30 Analyzed By EDL Date 13/35 Time 13:40

Results 38.0 Units °C Duplicate 38.0 Units °C

2 Amber Glass Qt w/Teflon lined lid

NELAC	ID2S	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	IPCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)

2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid

NELAC Short Hold	SAAE	Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
------------------	------	-----------------------------	-----------------------

2 H2SO4 to pH <2 GIQt w/Tef-lined lid

NYPE	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
------	------------------------	---------------------------

1 H2SO4 to pH <2 GIQt w/Tef-lined lid

NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
-------	-----	----------------------	-----------------------------

1 Polyethylene 1/2 gal (White)

NELAC Short Hold	BOD	Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC Short Hold	BODc	BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC	TSS	Total Suspended Solids	SM 2540 D-2015 (7.00 days)

0 Z -- No bottle required

	CKLM	Check Limits	
NELAC Short Hold	Cr+3	Trivalent Chromium	Calculation CAS:16065-83-1 (1.00 days)

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



1106094 CoC Print Group 001 of 001

2600 Dudley Rd. Kilgore, Texas 75662
Office: 903-984-0551 * Fax: 903-984-5914



CHAIN OF CUSTODY

Printed 06/06/2024

Page 4 of 6

SPACE X
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
194

NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold ID2V Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	COD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH ₄ N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TPWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mLw/Teflon lined lid

NELAC TOCL Total Organic Carbon SM 5310 C-2014 (28.0 days)



1106094 CoC Print Group 001 of 001

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CHAIN OF CUSTODY

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2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN _T	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN ⁻ A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CNCl	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	ICL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	IFL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	IN3L	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	IS4L	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AlkT	Total Alkalinity (as CaCO ₃)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
6/06/24	13:30	AROLYN WOOD	SPL	RAE LEON	SPL
6/06/24	17:30	RAE LEON	SPL	FedEx	
6/07/24	10:00	FedEx		Whitwood	SPL
		Printed Name	Affiliation	Printed Name	Affiliation
		Signature		Signature	



1106094 CoC Print Group 001 of 001

2600 Dudley Rd. Kilgore, Texas 75662
Office: 903-984-0551 * Fax: 903-984-5914



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CHAIN OF CUSTODY

SPACEX
Rodolfo Longoria
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1 Rocket Rd
Brownsville, TX 78521

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194

Sample Received on Ice? Yes No
Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAP, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). ANA-Lab personnel collect samples as specified by ANA-Lab SOP #000323.

Comments



1106094 CoC Print Group 001 of 001

ORIGIN ID: HRLA (55) 556-5565
 PNA LAB / RGV
 2401 VILLAGE DR S
 BROWNSVILLE, TN 37624
 UNITED STATES US

SHIP DATE: 06 JUN 24
 ACTWT: 58.75 LB
 CAD: 6994257/SSFE2521
 DIM: 24x14x13 IN
 BILL THIRD PARTY

FedEx Express Package US Airbill

8171 3103 3424

1 From
 Date: 6/24
 Sender's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

2 Your Internal Billing Reference

3 To
 Recipient's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

Hold Weekend
 Hold Saturday

TRK# 8171 3103 3424
 0200

FRI - 07 JUN 10:30A
 PRIORITY OVERNIGHT

XS GGGG

75662
 3HV

6/7 1030 AMV
 Date Time Tech
 Temp: 1.2 1.1 C
 Therm#: 7242 Corr Fact: -0.1 C

8171 3103 3424

fedex.com 1.800.GoFedEx 1.800.463.3339

SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1092339

Report Date: 02/28/2024
 Printed: 04/05/2024

RESULTS

Sample Results

Sample ID	Description	Collected by	Client	SPACEX	PO:	Received:
2274163	Water/WQP/Annual		Client	SPACEX		02/16/2024
	Drinking Water	Taken: 02/15/2024		15:00:00		
EPA 200.7 4.4						
		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105831 02/22/2024 15:15:00 KBI
	Parameter	Results	Units	RL	Flags	CAS Bottle
z	Calcium	80.1	mg/L	0.500		7440-70-2 03
NELAC	Iron, Total	0.0798	mg/L	0.025		7439-89-6 03
NELAC	Sodium	174	mg/L	0.500		7440-23-5 03
EPA 200.8 5.4						
		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105841 02/22/2024 21:43:00 JC2
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Manganese, Total	0.00119	mg/L	0.001		7439-96-5 03
EPA 300.0 2.1						
		Prepared:	1105412	02/20/2024	19:05:00	Analyzed 1105412 02/20/2024 19:05:00 NAZ
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Chloride	213	mg/L	30.0		
NELAC	Sulfate	342	mg/L	30.0		
SM 2320 B-2011						
		Prepared:	1106718	02/28/2024	09:42:00	Analyzed 1106718 02/28/2024 09:42:00 KNI
	Parameter	Results	Units	RL	Flags	CAS Bottle
z	Total Alkalinity (as CaCO3)	124	mg/L	1.00		
SM 2340 C-2011						
		Prepared:	1105896	02/22/2024	14:11:00	Analyzed 1105896 02/22/2024 14:11:00 SLF
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Total Hardness (as CaCO3)	310	mg/L	20		
SM 2510 B-2011						
		Prepared:	1105536	02/21/2024	13:30:00	Analyzed 1105536 02/21/2024 13:30:00 ALH
	Parameter	Results	Units	RL	Flags	CAS Bottle



SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1092339

Report Date: 02/28/2024
 Printed: 04/05/2024

2274163 Water/WQP/Annual

Received: 02/16/2024

Drinking Water
 Collected by: Client
 Taken: 02/15/2024
 SPACE X
 PO: 15:00:00

SM 2510 B-2011 Prepared: 1105536 02/21/2024 13:30:00 Analyzed 1105536 02/21/2024 13:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Lab Spec. Conductance at 25 C	1430	umhos/cm				01

SM 2540 C-2015 Prepared: 1105436 02/20/2024 12:00:00 Analyzed 1105436 02/20/2024 12:00:00 JMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	700	mg/L	50.0			01

SM 4500-H+ B-2011 Prepared: 1105537 02/21/2024 15:30:00 Analyzed 1105537 02/21/2024 15:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Laboratory pH	8.2@20C	SU	2.00			01

Sample Preparation

2274163 Water/WQP/Annual

Received: 02/16/2024

02/15/2024

Prepared: 02/20/2024 09:39:30 Calculated 02/20/2024 09:39:30 CAL

z Environmental Fee (per Project) Verified

EPA 200.2.2.8 Prepared: 1105616 02/22/2024 10:00:00 Analyzed 1105616 02/22/2024 10:00:00 HLT

z Liquid Metals Digestion	50/50	ml				02
---------------------------	-------	----	--	--	--	----

SM 2540 C-2015 Prepared: 1105103 02/20/2024 12:00:00 Analyzed 1105103 02/20/2024 12:00:00 JMB

NELAC Total Dissolved Solids Started Started



SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1092339

Report Date: 02/28/2024
Printed: 04/05/2024

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation

z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Space Exploration Technologies Corp. (CN602867657) operates Starbase Launch Pad Site (RN111606745), a water deflector system. The facility is located at the south side of the eastern terminus of State Highway 4, in Brownsville, Cameron County, Texas 78521. The purpose of this application is to obtain a discharge permit for non-process deluge system water that is utilized during launch operations.

Discharges from the facility are expected to contain total dissolved solids, nitrate-nitrogen, phosphorus, total dissolved solids, sulfate, chloride, fluoride, aluminum, cadmium, chromium, copper, cyanide, and zinc. Wastewater will be treated by reusing deluge and pretreatment required.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

Space Exploration Technologies Corp. (CN602867657) opera Starbase Launch Pad Site RN111606745, un deluge system. La instalación está ubicada en the south side of the eastern terminus of State Highway 4, en Brownsville, Condado de Cameron, Texas 78521. Obtener un permiso de descarga para el agua del Sistema de diluvio que no es de proceso y que se utiliza durante las operaciones de lanzamiento..

Se espera que las descargas de la instalación contengan solidos disueltos totales, nitrogeno-nitrato, fosforo, sulfato, cloruro, fluoruro, aluminio, cadmio, cromo, cobre, zinc y cianuro . Aguas residuals industriales. está tratado por mediante reutilizacion de agua de diluvio y pretratamiento degun sea necesario.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL
TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:
 Application type: ____ Renewal ____ Major Amendment ____ Minor Amendment New
 County: Cameron Segment Number: 2301
 Admin Complete Date: _____
 Agency Receiving SPIF:
 ____ Texas Historical Commission U.S. Fish and Wildlife
 Texas Parks and Wildlife Department ____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Space Exploration Technologies Corp

Permit No. WQ00

EPA ID No. TX

Address of the project (or a location description that includes street/highway, city/vicinity, and county):

SpaceX Launch Pad Site, located on the south side of the easternmost terminus of SH 4, Cameron County, Texas.

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mrs.

First and Last Name: Katy Groom

Credential (P.E, P.G., Ph.D., etc.):

Title: Manager, Environmental Regulatory Affairs

Mailing Address: L6-1581 Roberts Rd

City, State, Zip Code: Kennedy Space Center, FL 32815

Phone No.: 321-730-1469 Ext.: Fax No.:

E-mail Address: Katy.Groom@spacex.com

2. List the county in which the facility is located: Cameron
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The discharge route is to mudflats immediately outside of the containment area and approximately southwest of the launch pad, south to the final segment, 2301, of the Rio Grande River.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- Proposed access roads, utility lines, construction easements
- Visual effects that could damage or detract from a historic property's integrity
- Vibration effects during construction or as a result of project design
- Additional phases of development that are planned for the future

Sealing caves, fractures, sinkholes, other karst features

Disturbance of vegetation or wetlands

1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

N/A

2. Describe existing disturbances, vegetation, and land use:

No current land use

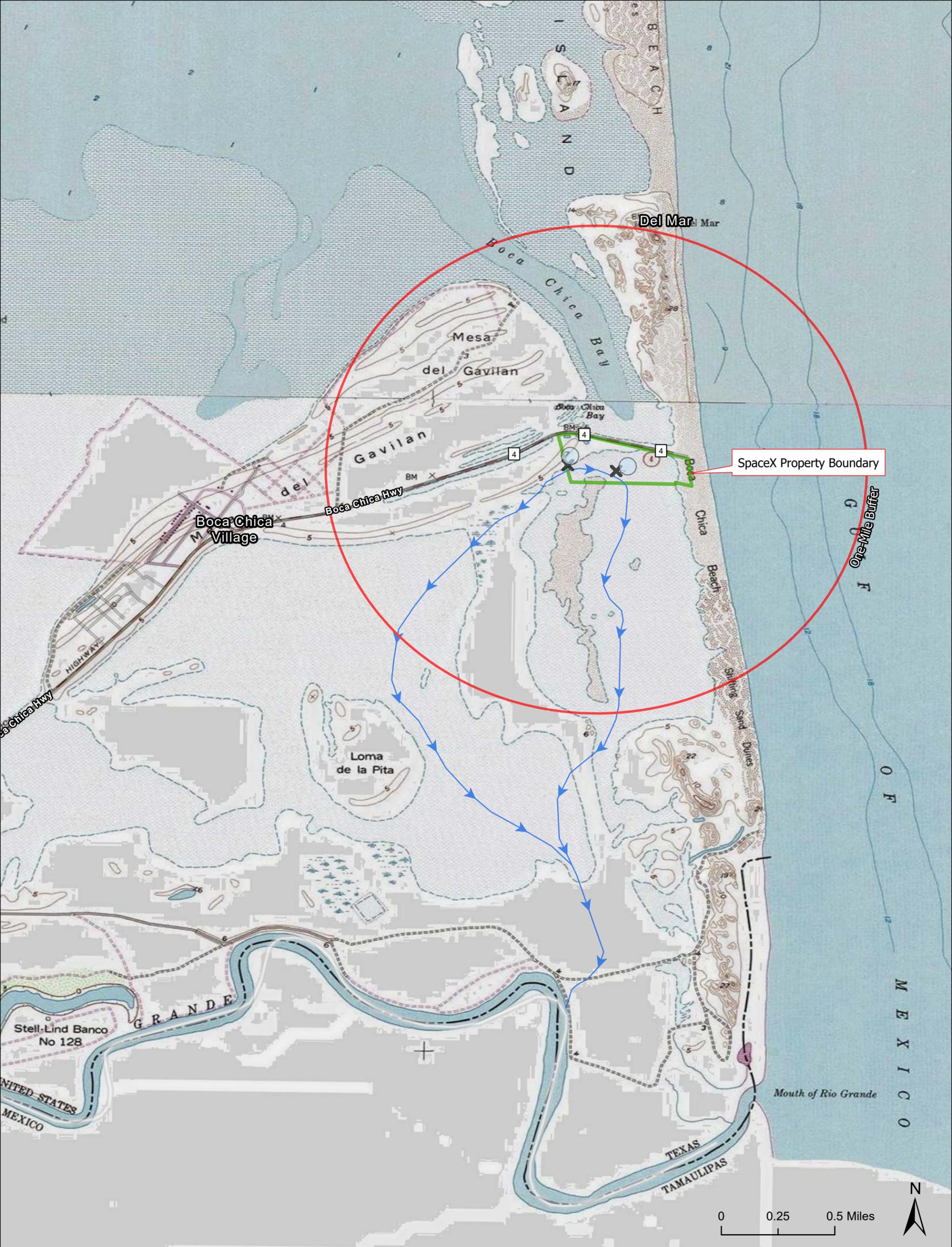
THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

3. List construction dates of all buildings and structures on the property:

N/A

4. Provide a brief history of the property, and name of the architect/builder, if known.

SpaceX launch facilities



SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- X Outfall & Sampling
- Downstream Flow





SPACEX Launch Pad TPDES Permit
Landowner Map

- | | |
|-----------------------------------|---------|
| SpaceX Property Boundary | Federal |
| One-Mile Buffer | SpaceX |
| Approximate Water Dispersal Limit | TPWD |
| Outfall & Sampling Point | Private |
| Downstream Flow Line | |
- 0 0.5 1 Miles



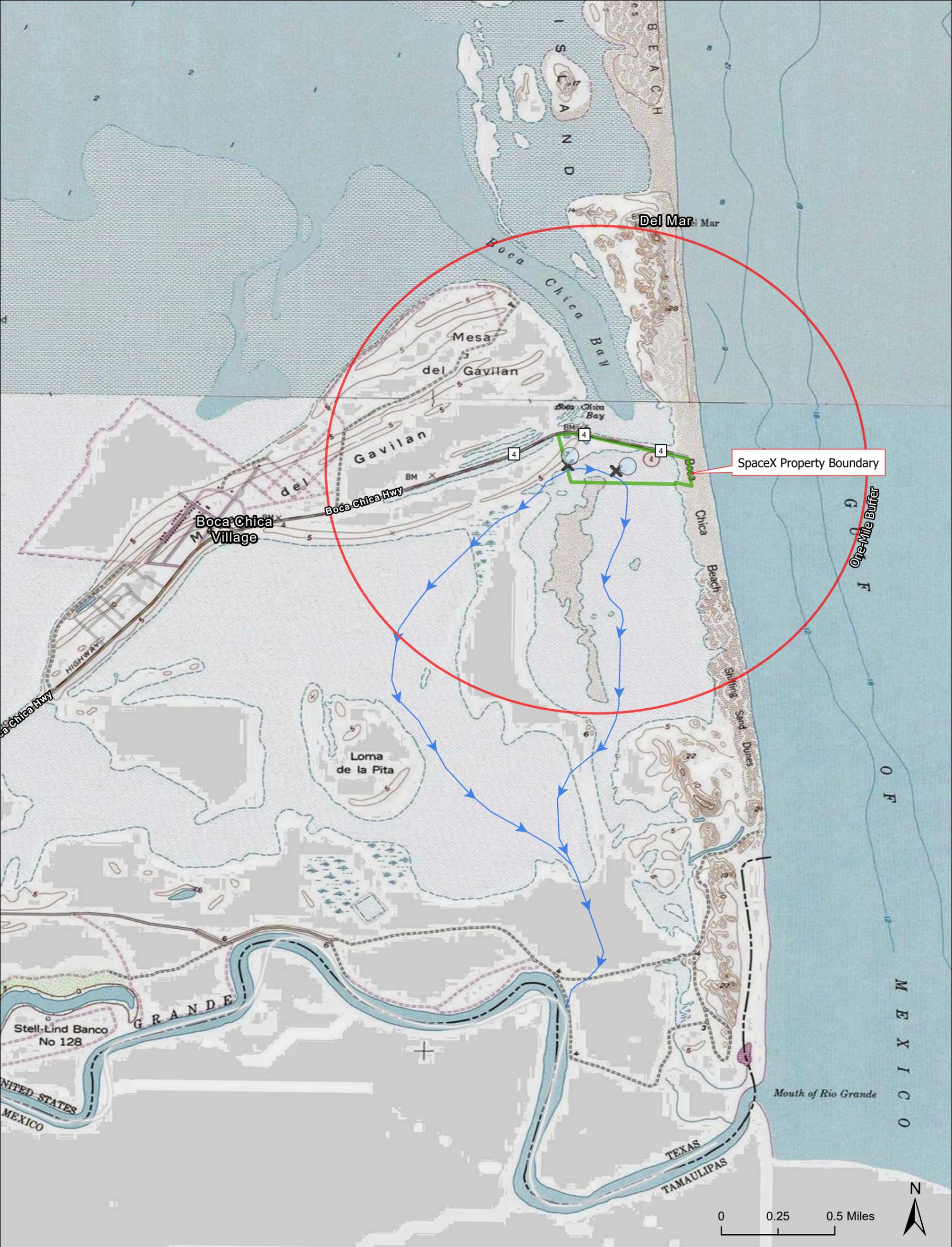
Affected Property Owner List

Property Number	Name	Address
1	TEXAS PARKS & WILDLIFE DEPARTMENT	5460 PARADES LINE RD NO 201, BROWNSVILLE, TX 78526
2	UNITED STATES FISH & WILDLIFE DEPARTMENT	3325 GREEN JAY RD, ALAMO, TX 78516
3	Real Alchemy ILP	3608 E 29th St., STE 100, Bryan TX 77802
4	Gloria F Regis, TR of the Gloria F Regis Rev Trust	7181 Galbraith Line Rd., Lexington, MI 48450
5	Richard Joseph Miriani Trustee/RJ Miriani Revocable Trust	PO BOX 389, Rose City, MI 48654
6	Randolph P and Gary P Gurski	2368 W Farrand Rd, Clio, MI 48420
7	David Suissa Trustee	98 San Jacinto Blvd. Unit FSR2804, Austin, TX 78701
8	Marlene Magda & James J Magda	26446 Woodworth Cir, Dearborn Heights, MI 48127

TEXAS PARKS & WILDLIFE
DEPARTMENT
5460 PARADES LINE RD STE 201
BROWNSVILLE, TX 78526

UNITED STATES FISH & WILDLIFE
DEPARTMENTS
3325 GREEN JAY RD.
ALAMO, TX 78516

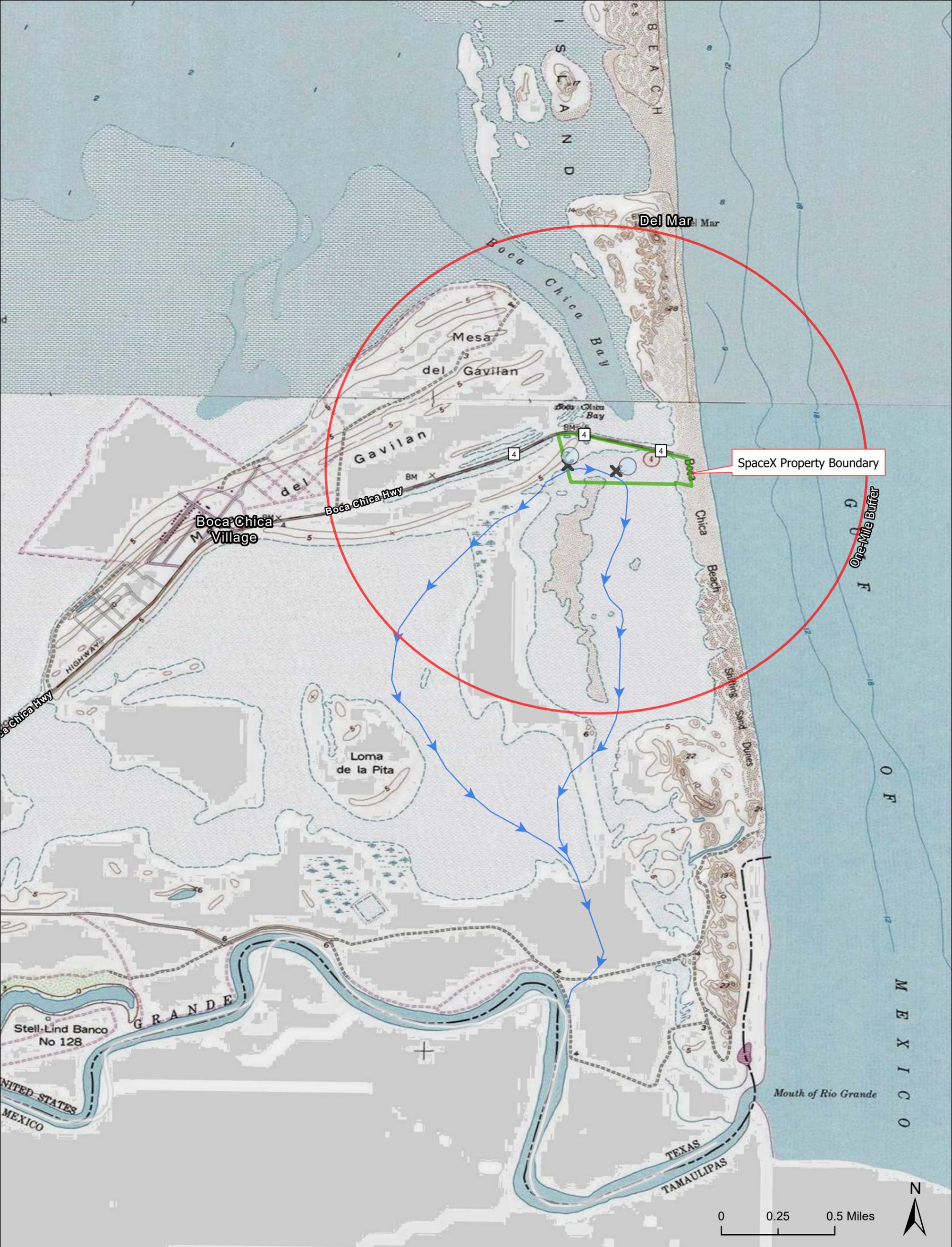
Blank label area



SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow





SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow

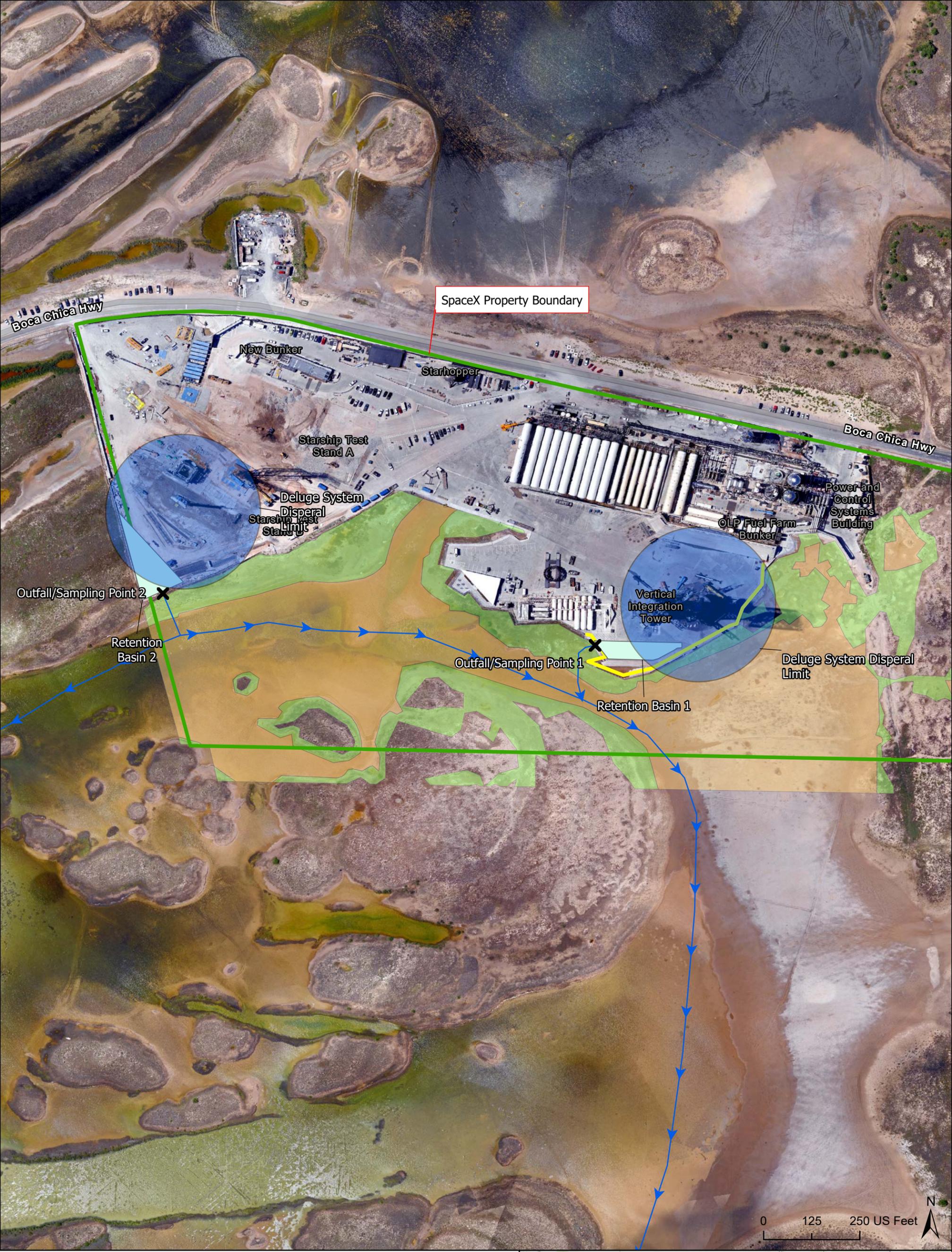




SPACEX Launch Pad TPDES Permit Facility Map

- SpaceX Property Boundary
 - Retention Basin
 - Approximate Maximum Water Dispersal Limit
 - X Outfall & Sampling Point
 - Downstream Flow
 - Concrete Curbing
- 0 250 500 US Feet





SPACEX Launch Pad TPDES Permit Site Map

- SpaceX Property Boundary
- Approximate Maximum Water Dispersal Limit
- Retention Basin
- Outfall & Sampling Point
- Downstream Flow
- Concrete Curbing
- Unvegetated Mud Flats
- High Marsh



From: steers@tceq.texas.gov
To: [Carolyn Wood](#)
Subject: TCEQ ePay Receipt for 582EA000615822
Date: Thursday, June 27, 2024 5:12:23 PM

This is an automated message from the TCEQ ePay system. Please do not reply.

Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
TCEQ Amount: \$350.00
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Actor: CAROLYN WOOD
Email: carolyn.wood@spacex.com

Payment Contact: SHIRLEY YANG
Phone: 310-363-6000
Company: SPACEX
Address: 1 ROCKET ROAD, HAWTHORNE, CA 90250

Fees Paid:
Fee Description AR Number Amount
WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW \$300.00
30 TAC 305.53B WQ NOTIFICATION FEE \$50.00

TCEQ Amount: \$350.00

=====
Voucher: 711240
Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
Voucher Amount: \$300.00
Fee Paid: WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW
Site Name: STARBASE LAUNCH PAD
Site Location: SH4 BOCA CHICA TEXAS 78521
CN Number: CN602867657
Customer Name: SPACE EXPLORATION TECHNOLOGIES CORP
State Franchise Tax ID: 10106276719
Customer Address: 1 ROCKET RD, HAWTHORNE, CA 90250 6844
Comments: Industrial Wastewater Permit Application Fee

Voucher: 711241
Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
Voucher Amount: \$50.00
Fee Paid: 30 TAC 305.53B WQ NOTIFICATION FEE

=====
To print out a copy of the receipt and vouchers for this transaction
either click on or copy and paste the following url into your browser:
https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace_num_txt=582EA000615822.

This e-mail transmission and any attachments are believed to have been sent free of any virus or other defect that might affect

any computer system into which it is received and opened. It is, however, the recipient's responsibility to ensure that the e-mail transmission and any attachments are virus free, and the sender accepts no responsibility for any damage that may in any way arise from their use.



Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000615822
Date: 06/27/2024 05:11 PM
Payment Method: CC - Authorization 0000S94613
ePay Actor: CAROLYN WOOD
Actor Email: carolyn.wood@spacex.com
IP: 192.31.242.194
TCEQ Amount: \$350.00
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: SHIRLEY YANG
Company: SPACEX
Address: 1 ROCKET ROAD, HAWTHORNE, CA 90250
Phone: 310-363-6000

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
711240	WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - NEW		\$300.00
711241	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$350.00

[ePay Again](#)

[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

Attachment A



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 6028676S7		RN 111606745

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)		<input type="checkbox"/> Change in Regulated Entity Ownership	
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		<i>If new Customer, enter previous Customer below:</i>	
Space Exploration Technologies Corp.			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
805421124	1-01-062767	01-0627671	120-406-462
11. Type of Customer:		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:			
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant			
15. Mailing Address:		1 Rocket Road	
City		Hawthorne	
State		CA	
ZIP		90250	
ZIP + 4		6844	
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code	20. Fax Number (if applicable)

SECTION III: Regulated Entity Information**21. General Regulated Entity Information** (If "New Regulated Entity" is selected, a new permit application is also required.)
 New Regulated Entity
 Update to Regulated Entity Name
 Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

Starbase Launch Pad Site

23. Street Address of the Regulated Entity:

1 Rocket Road

(No PO Boxes)

City	Brownsville	State	TX	ZIP	78521	ZIP + 4	0008
------	-------------	-------	----	-----	-------	---------	------

24. County

Cameron

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:**26. Nearest City****State****Nearest ZIP Code**

Brownsville

TX

78521

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:

25.996969

28. Longitude (W) In Decimal:

-97.156269

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29. Primary SIC Code**30. Secondary SIC Code****31. Primary NAICS Code****32. Secondary NAICS Code**

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

3761

33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)

Launch site

34. Mailing

1 Rocket Road

Address:

City	Brownsville	State	TX	ZIP	78521	ZIP + 4	8
------	-------------	-------	----	-----	-------	---------	---

35. E-Mail Address:**36. Telephone Number****37. Extension or Code****38. Fax Number** (if applicable)

(323) 537-71

() -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

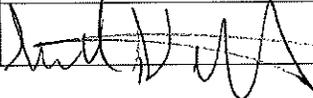
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input checked="" type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input checked="" type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Carolyn A. Wood	41. Title:	Sr. Enviro Regulatory Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(323) 537-0071		() -	carolyn.wood@spacex.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Space exploration technologies	Job Title:	EHS Manager
Name (In Print):	Samantha Stecher-Stroud	Phone:	(210) 913-0901
Signature:		Date:	6.7.2024

Attachment B



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by [Title 30, Texas Administrative Code \(30 TAC\), Chapter 39, Subchapter H](#). Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Space Exploration Technologies Corp. (CN602867657) operates Starbase Launch Pad Site (RN111606745), a water deflector system. The facility is located at the south side of the eastern terminus of State Highway 4, in Brownsville, Cameron County, Texas 78521. The purpose of this application is to obtain a discharge permit for non-process deluge system water that is utilized during launch operations.

Discharges from the facility are expected to contain total dissolved solids, nitrate-nitrogen, phosphorus, total dissolved solids, sulfate, chloride, fluoride, aluminum, cadmium, chromium, copper, cyanide, and zinc. Wastewater will be treated by reusing deluge and pretreatment required.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación ejecutiva fedérale de la solicitud de permiso.

Space Exploration Technologies Corp. (CN602867657) opera Starbase Launch Pad Site RN111606745, un deluge system. La instalación está ubicada en the south side of the eastern terminus of State Highway 4, en Brownsville, Condado de Cameron, Texas 78521. Obtener un permiso de descarga para el agua del Sistema de diluvio que no es de proceso y que se utiliza durante las operaciones de lanzamiento..

Se espera que las descargas de la instalación contengan solidos disueltos totales, nitrogeno-nitrato, fosforo, sulfato, cloruro, fluoruro, aluminio, cadmio, cromo, cobre, zinc y cianuro . Aguas residuals industriales. está tratado por mediante reutilizacion de agua de diluvio y pretratamiento degun sea necesario.

Total

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Attachment C



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

New Permit or Registration Application

New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, **and**

Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary.
Stop after Section 2 and submit the form.**

Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire
 Radioactive Material Licensing Underground Injection Control

Water Quality

- Texas Pollutant Discharge Elimination System (TPDES)
- Texas Land Application Permit (TLAP)
- State Only Concentrated Animal Feeding Operation (CAFO)
- Water Treatment Plant Residuals Disposal Permit
- Class B Biosolids Land Application Permit
- Domestic Septage Land Application Registration

Water Rights New Permit

- New Appropriation of Water
- New or existing reservoir

Amendment to an Existing Water Right

- Add a New Appropriation of Water
- Add a New or Existing Reservoir
- Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

City

County

Census Tract

- (a) Percent of people over 25 years of age who at least graduated from high school

- (b) Per capita income for population near the specified location

- (c) Percent of minority population and percent of population by race within the specified location

- (d) Percent of Linguistically Isolated Households by language within the specified location

- (e) Languages commonly spoken in area by percentage

- (f) Community and/or Stakeholder Groups

- (g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

Yes No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

Yes No

If Yes, please describe.

If you answered “yes” that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

Yes No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

- Publish in alternative language newspaper
- Posted on Commissioner’s Integrated Database Website
- Mailed by TCEQ’s Office of the Chief Clerk
- Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

Yes No

(e) If a public meeting is held, will a translator be provided if requested?

Yes No

(f) Hard copies of the application will be available at the following (check all that apply):

- TCEQ Regional Office TCEQ Central Office
- Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

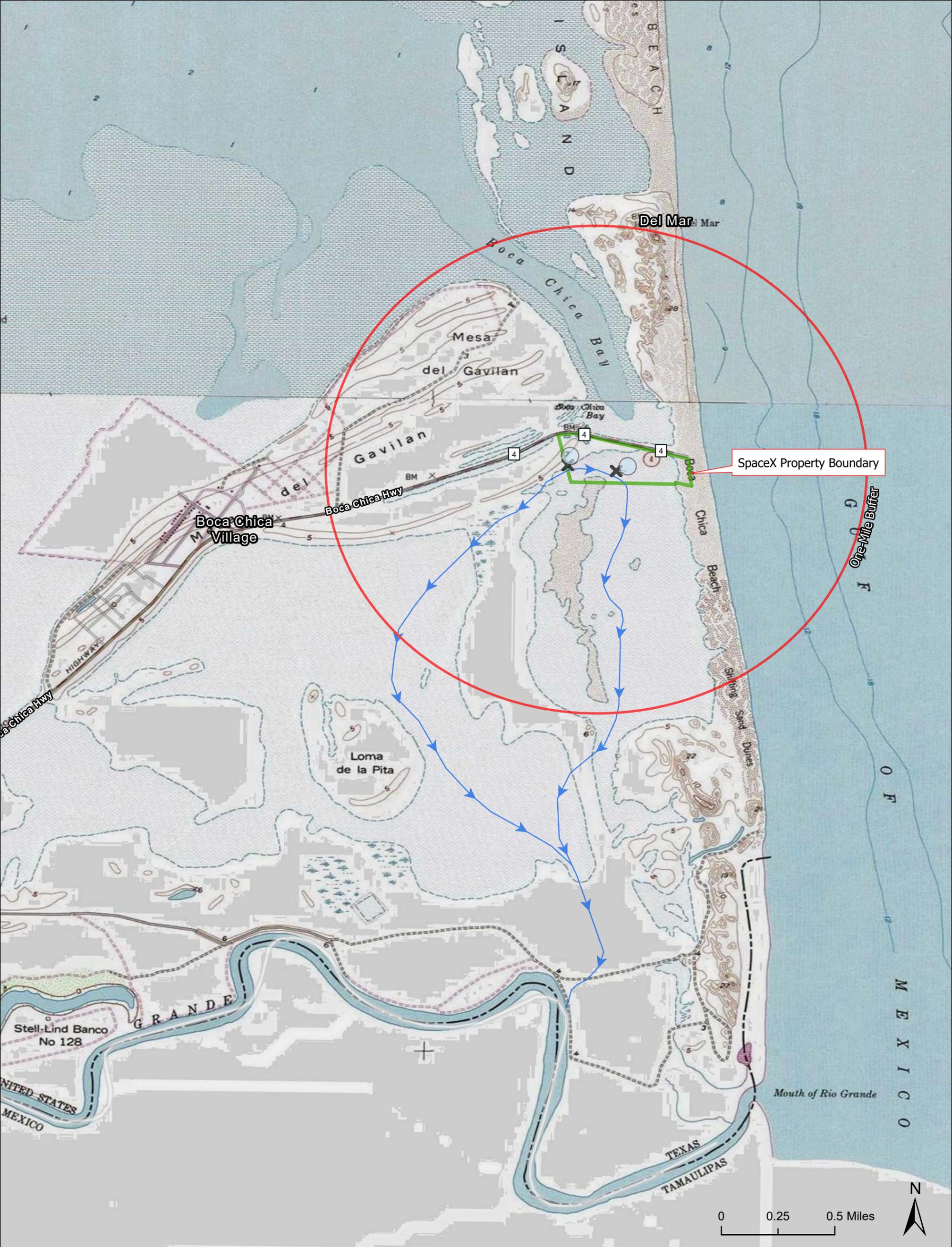
Will you provide notice of this application, including notice in alternative languages?

Yes No

What types of notice will be provided?

- Publish in alternative language newspaper
- Posted on Commissioner’s Integrated Database Website
- Mailed by TCEQ’s Office of the Chief Clerk
- Other (specify)

Attachment D



SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow



Attachment E



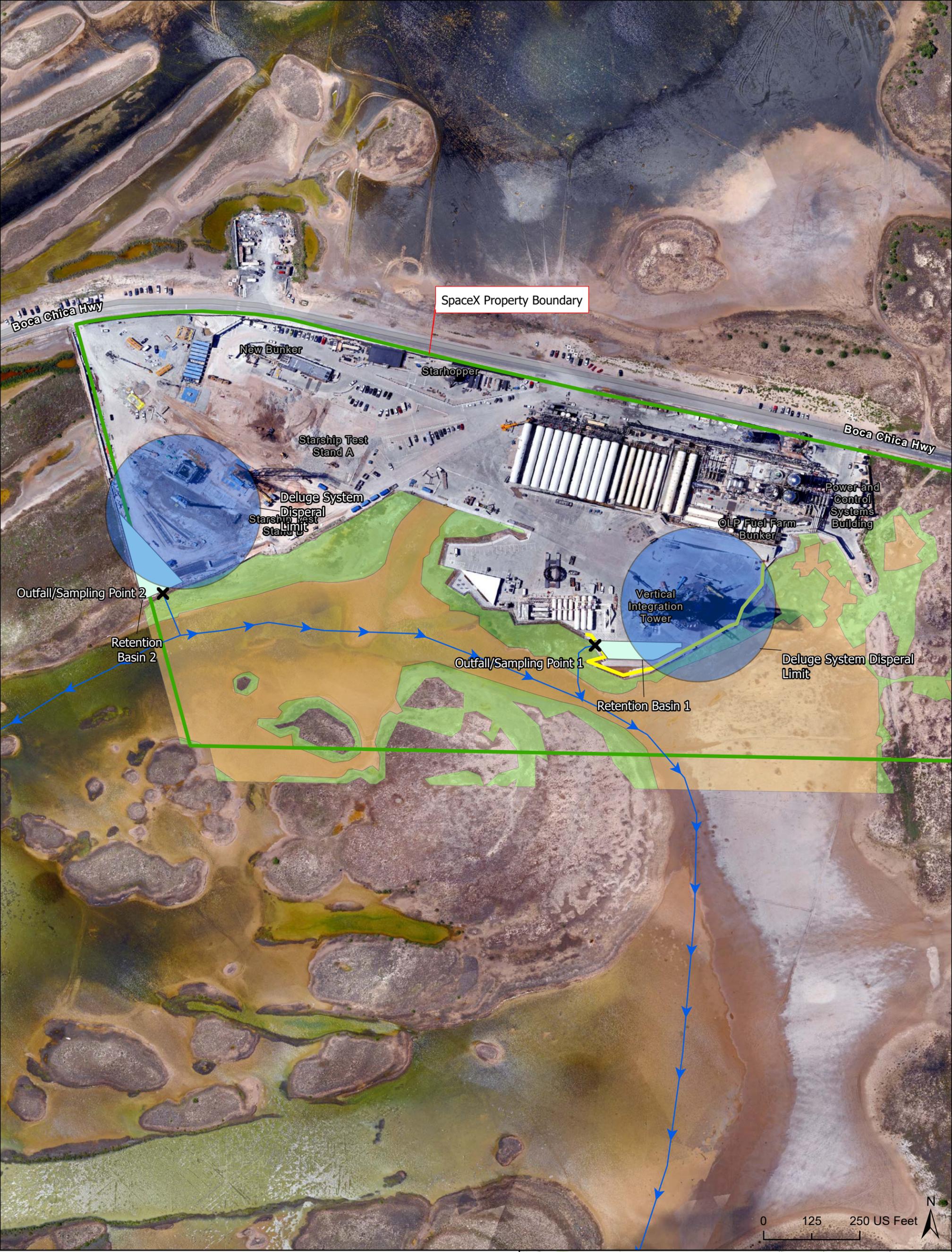
SPACEX Launch Pad TPDES Permit
Landowner Map

- | | |
|-----------------------------------|---------|
| SpaceX Property Boundary | Federal |
| One-Mile Buffer | SpaceX |
| Approximate Water Dispersal Limit | TPWD |
| Outfall & Sampling Point | Private |
| Downstream Flow Line | |
- 0 0.5 1 Miles



Attachment F

Attachment G



SPACEX Launch Pad TPDES Permit
Site Map

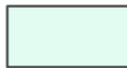
- SpaceX Property Boundary
- Approximate Maximum Water Dispersal Limit
- Retention Basin
- Outfall & Sampling Point
- Concrete Curbing
- Unvegetated Mud Flats
- High Marsh
- Downstream Flow



Attachment H



SPACEX Launch Pad TPDES Permit Facility Map

-  SpaceX Property Boundary
 -  Retention Basin
 -  Approximate Maximum Water Dispersal Limit
 -  Outfall & Sampling Point
 -  Downstream Flow
 -  Concrete Curbing
- 0 250 500 US Feet



Attachment I

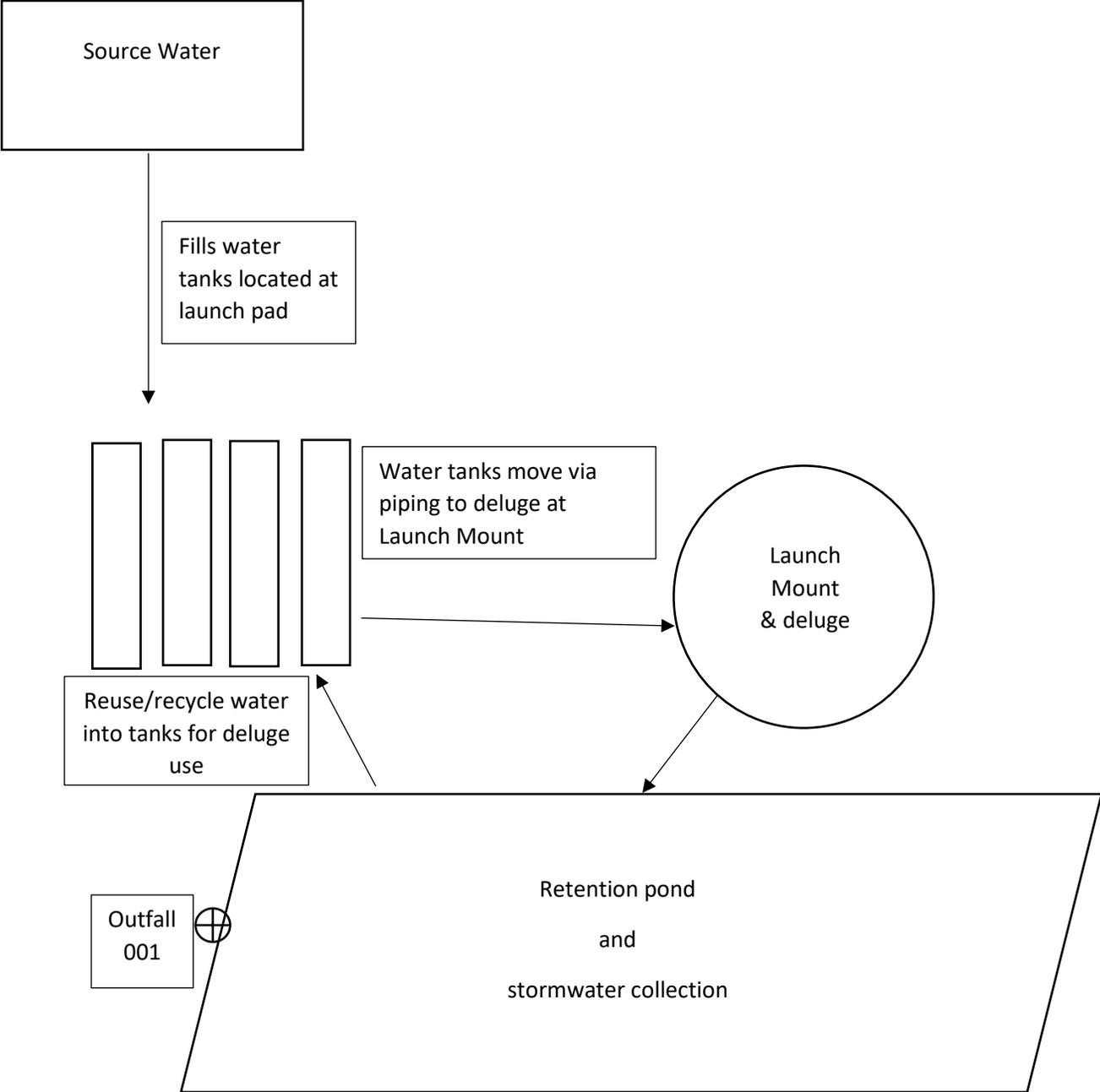


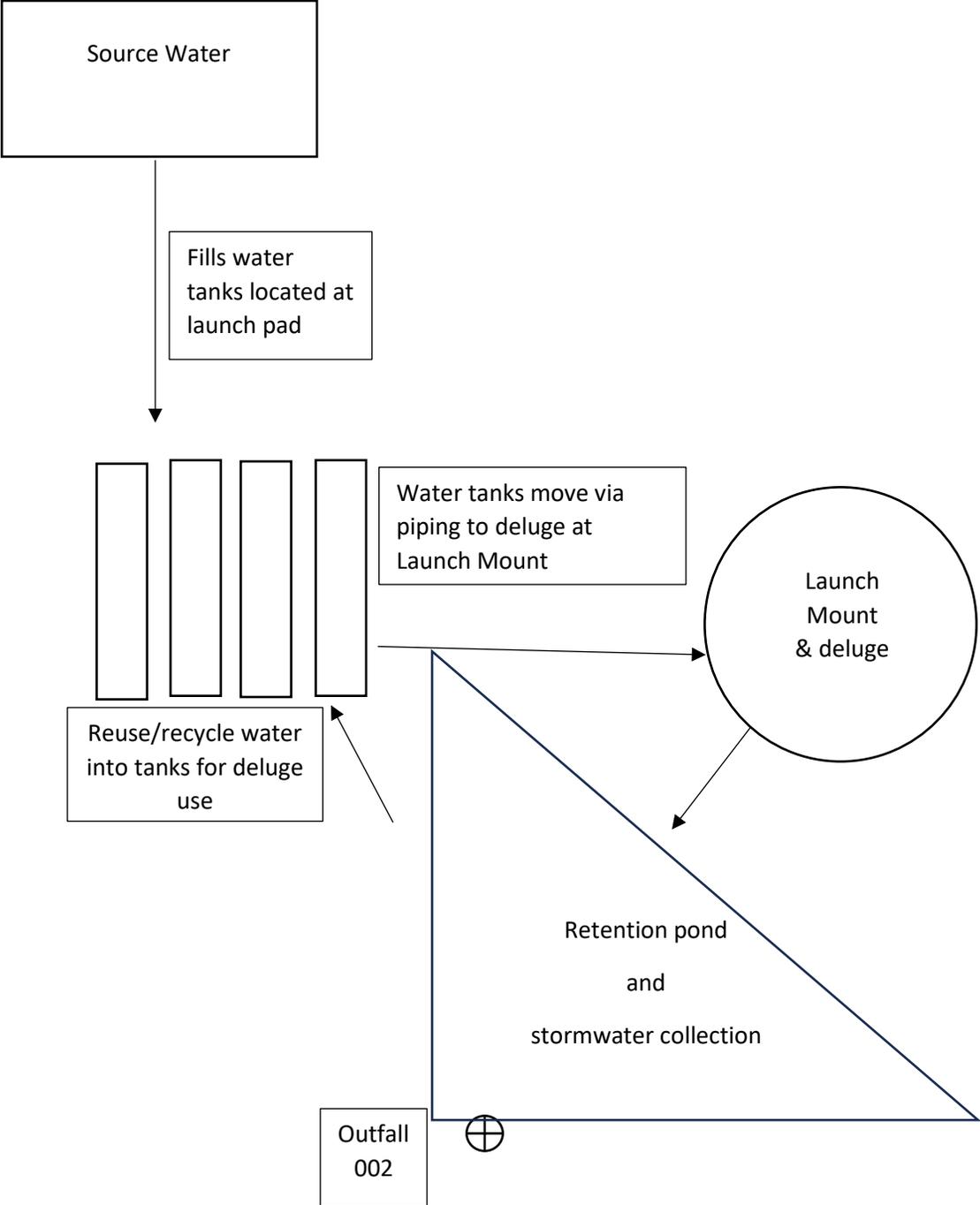
USDA, USGS The National Map: Orthoimagery. Data refreshed June, 2024.

Powered by Esri

<p>PIN</p> <ul style="list-style-type: none"> Approximate location based on user input and does not represent an authoritative property location <p>MAP PANELS</p> <ul style="list-style-type: none"> Selected FloodMap Boundary Digital Data Available No Digital Data Available Unmapped <p>OTHER AREAS</p> <ul style="list-style-type: none"> Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D Otherwise Protected Area Coastal Barrier Resource System Area 	<p>SPECIAL FLOOD HAZARD AREAS</p> <ul style="list-style-type: none"> Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Regulatory Floodway Zone AE, AO, AH, VE, AR 0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D <p>OTHER AREAS OF FLOOD HAZARD</p>	<p>OTHER FEATURES</p> <ul style="list-style-type: none"> Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature <p>GENERAL STRUCTURES</p> <ul style="list-style-type: none"> Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
--	--	---

Attachment J





Attachment K

Project
1105141

SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Printed 06/26/2024
13:37

TABLE OF CONTENTS

Retention Pond

This report consists of this Table of Contents and the following pages:

<u>Report Name</u>	<u>Description</u>	<u>Pages</u>
1105141_r02_01_ProjectSamples	SPL Kilgore Project P:1105141 C:SPAC Project Sample Cross Reference t:304	17
1105141_r03_03_ProjectResults	SPL Kilgore Project P:1105141 C:SPAC Project Results t:304 PO: 2605353	12
1105141_r10_05_ProjectQC	SPL Kilgore Project P:1105141 C:SPAC Project Quality Control Groups	32
1105141_r99_09_CoC__1_of_1	SPL Kilgore CoC SPAC 1105141_1_of_1	9
Total Pages:		70



SAMPLE CROSS REFERENCE

Project
1105141

Printed 6/26/2024 Page 1 of 17

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	35	1121972	06/03/2024	1122623	06/06/2024
EPA 300.0 2.1	01	1121871	05/31/2024	1121871	05/31/2024

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SAMPLE CROSS REFERENCE

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1122502	06/05/2024	1122502	06/05/2024
EPA 625.1	34	1121954	06/03/2024	1124511	06/17/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	04	1121678	05/30/2024	1121678	05/30/2024
EPA 624.1	07	1121680	05/30/2024	1121680	05/30/2024

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SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
ASTM D7065-11	36	1122298	06/05/2024	1122871	06/06/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1122038	06/03/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.7 4.4	30	1121672	05/31/2024	1123498	06/12/2024
EPA 245.1 3	31	1121865	06/03/2024	1121966	06/03/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1123699	06/12/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1123260	06/10/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1122450	06/06/2024
SM 2320 B-2011	18	1122797	06/07/2024	1122797	06/07/2024

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SPACEX
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5210 B-2016	01	1121636	06/05/2024	1121636	06/05/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1121637	06/05/2024	1121637	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016			06/04/2024		06/04/2024
SM 4500-CN ⁻ G-2016	29	1121666	05/31/2024	1122125	06/04/2024

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SPACEX
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ E-2016	23	1121649	05/31/2024	1122121	06/04/2024
SM 5220 D-2011	13	1121775	05/31/2024	1121775	05/31/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/06/2024		06/06/2024
SM 3500-Cr B-2011	19	1122575	06/05/2024	1122575	06/05/2024

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SPACEX
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 3500-Cr B-2011		1121254	05/29/2024	1121254	05/29/2024
EPA 1664B (HEM)	08	1122457	06/05/2024	1122457	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	20	1121581	05/30/2024	1122206	06/04/2024
EPA 351.2 minus EPA 350.1			06/05/2024		06/05/2024

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SPACEX
 Rodolfo Longoria
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 C-2015	11	1122168	06/03/2024	1122168	06/03/2024
EPA 351.2.2	28	1121658	05/31/2024	1122132	06/04/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE CROSS REFERENCE

Project
1105141

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	15	1122326	06/05/2024	1122326	06/05/2024
SM 4500-P E-2011	13	1121996	06/03/2024	1121996	06/03/2024

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SAMPLE CROSS REFERENCE

Project
1105141

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 D-2015	11	1121687	05/30/2024	1121687	05/30/2024
SM 2130 B-2011	11	1123697	06/11/2024	1123697	06/11/2024

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SAMPLE CROSS REFERENCE

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-H+ B-2011		1121148	05/28/2024	1121148	05/28/2024

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SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1105141

Printed: 06/26/2024

Retention Pond

RESULTS

Sample Results

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water
 Collected by: Client
 Taken: 05/29/2024
 Client: SPACE X
 PO: 2605353
 18:30:00

Prepared: 06/19/2024 14:37:00 Analyzed 06/19/2024 14:37:00 WJP

Parameter	Results	Units	RL	Flags	CAS	Bottle
Check Limits	Completed					

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Nonyphenol	<33.6	ug/L	33.6		25154-52-3	36

Calculation Prepared: 06/06/2024 14:32:29 Calculated 06/06/2024 14:32:29 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Trivalent Chromium	<0.003	mg/L	0.003		16065-83-1	

Client Prepared: 1121027 05/28/2024 03:56:00 Analyzed 1121027 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cl2 Res(Total) Analyzed by client	0.20	mg/L				

EPA 1664B (HEM) Prepared: 1122457 06/05/2024 10:00:00 Analyzed 1122457 06/05/2024 10:00:00 MAX

Parameter	Results	Units	RL	Flags	CAS	Bottle
Oil and Grease (HEM)	3.60	mg/L	4.49	J		08

EPA 200.7 4.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123498 06/12/2024 10:21:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Calcium	83.3	mg/L	0.500		7440-70-2	30
Iron, Total	0.702	mg/L	0.007		7439-89-6	30



SPAC-R

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1105141

Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122038 06/03/2024 12:30:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.0702	mg/L	0.00171		7429-90-5	30
NELAC Arsenic, Total	0.00188	mg/L	0.0005		7440-38-2	30
NELAC Barium, Total	0.0943	mg/L	0.001		7440-39-3	30
NELAC Beryllium, Total	<0.000139	mg/L	0.000139		7440-41-7	30
NELAC Cadmium, Total	0.000107	mg/L	0.001	J	7440-43-9	30
NELAC Chromium, Total	0.00155	mg/L	0.001		7440-47-3	30
NELAC Copper, Total	0.00949	mg/L	0.00155		7440-50-8	30
NELAC Lead, Total	<0.000244	mg/L	0.000244		7439-92-1	30
NELAC Nickel, Total	0.00626	mg/L	0.00112		7440-02-0	30
NELAC Silver, Total	<0.000226	mg/L	0.000226		7440-22-4	30
NELAC Thallium, Total	<0.000106	mg/L	0.000106		7440-28-0	30
NELAC Zinc, Total	1.42	mg/L	0.001		7440-66-6	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122450 06/06/2024 02:19:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Selenium, Total	0.00286	mg/L	0.002		7782-49-2	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123260 06/10/2024 21:41:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00189	mg/L	0.003	J	7440-36-0	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123699 06/12/2024 08:56:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Manganese, Total	0.059	mg/L	0.0005		7439-96-5	30

EPA 245.1 3 Prepared: 1121865 06/03/2024 10:30:00 Analyzed 1121966 06/03/2024 13:29:00 KB1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	<0.113	ug/L	0.113		7439-97-6	31

EPA 300.0 2.1 Prepared: 1121871 05/31/2024 13:17:00 Analyzed 1121871 05/31/2024 13:17:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	182	mg/L	3.00			01
NELAC Fluoride	0.970	mg/L	0.500	J		01



SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

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Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 300.0 2.1		Prepared: 1121871 05/31/2024 13:17:00		Analyzed 1121871 05/31/2024 13:17:00		NAZ	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.100		14797-55-8	01	
EPA 300.0 2.1		Prepared: 1122502 06/05/2024 13:36:00		Analyzed 1122502 06/05/2024 13:36:00		NAZ	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Sulfate	282	mg/L	30.0			01	
EPA 350.1 2		Prepared: 1121581 05/30/2024 15:18:42		Analyzed 1122206 06/04/2024 07:02:00		AMB	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Ammonia Nitrogen	0.121	mg/L	0.020			20	
EPA 351.2 2		Prepared: 1121658 05/31/2024 08:22:52		Analyzed 1122132 06/04/2024 08:23:00		AMB	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Total Kjeldahl Nitrogen	0.064	mg/L	0.050		7727-37-9	28	
EPA 351.2 minus EPA 350.1		Prepared: 06/05/2024 08:55:57		Calculated 06/05/2024 08:55:57		CAL	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Nitrogen, Total Organic (as N)	<0.050	mg/L	0.050				
EPA 608.3		Prepared: 1121972 06/03/2024 14:30:00		Analyzed 1122623 06/06/2024 01:55:00		KAP	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC PCB-1016	<0.334	ug/L	0.334	X	12674-11-2	35	
NELAC PCB-1221	<0.331	ug/L	0.331		11104-28-2	35	
NELAC PCB-1232	<0.331	ug/L	0.331		11141-16-5	35	
NELAC PCB-1242	<0.331	ug/L	0.331		53469-21-9	35	
NELAC PCB-1248	<0.331	ug/L	0.331		12672-29-6	35	
NELAC PCB-1254	<0.331	ug/L	0.331		11097-69-1	35	
NELAC PCB-1260	<0.331	ug/L	0.331		11096-82-5	35	
NELAC PCB-1262	<0.331	ug/L	0.331		37324-23-5	35	
NELAC PCB-1268	<0.331	ug/L	0.331		11100-14-4	35	



SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

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1105141

Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121678 05/30/2024 17:55:00 Analyzed 1121678 05/30/2024 17:55:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Acrolein	<4.00	ug/L	4.00	X	107-02-8	04
NELAC Acrylonitrile	<1.00	ug/L	1.00		107-13-1	04

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	07
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	07
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	07
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	07
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	07
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	07
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	07
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	07
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	07
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	07
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	07
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	07
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	07
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	07
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	07
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	07
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	07
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	07
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	07
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	07
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	07
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	07
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	07
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	07
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	07
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	07
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	07
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	07
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	07
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	07
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	07



SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1105141

Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	07

EPA 624.1 Prepared: 1121680 05/31/2024 12:46:07 Calculated 1121680 05/31/2024 12:46:07 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			07

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2,4,5-Tetrachlorobenzene	<1.02	ug/L	1.02	X	95-94-3	34
NELAC 1,2,4-Trichlorobenzene	<0.988	ug/L	0.988		120-82-1	34
NELAC 1,2-Dichlorobenzene	<4.94	ug/L	4.94		95-50-1	34
NELAC 1,2-DPH (as azobenzene)	<0.988	ug/L	0.988		122-66-7	34
NELAC 1,3-Dichlorobenzene	<4.94	ug/L	4.94	X	541-73-1	34
NELAC 1,4-Dichlorobenzene	<4.94	ug/L	4.94	X	106-46-7	34
NELAC 2,4,5-Trichlorophenol	<4.94	ug/L	4.94		95-95-4	34
NELAC 2,4,6-Trichlorophenol	<1.98	ug/L	1.98		88-06-2	34
NELAC 2,4-Dichlorophenol	<0.988	ug/L	0.988		120-83-2	34
NELAC 2,4-Dimethylphenol	<0.988	ug/L	0.988	S	105-67-9	34
NELAC 2,4-Dinitrophenol	<1.98	ug/L	1.98		51-28-5	34
NELAC 2,4-Dinitrotoluene	<1.98	ug/L	1.98		121-14-2	34
NELAC 2,6-Dinitrotoluene	<1.98	ug/L	1.98		606-20-2	34
NELAC 2-Chloronaphthalene	<0.988	ug/L	0.988		91-58-7	34
NELAC 2-Chlorophenol	<0.988	ug/L	0.988		95-57-8	34
NELAC 2-Methylphenol (o-Cresol)	<9.88	ug/L	9.88		95-48-7	34
NELAC 2-Nitrophenol	<0.988	ug/L	0.988		88-75-5	34
NELAC 3&4-Methylphenol (m&p-Cresol)	<7.91	ug/L	7.91		MEPH34	34
NELAC 3,3'-Dichlorobenzidine	<1.98	ug/L	1.98		91-94-1	34
NELAC 4,6-Dinitro-2-methylphenol	<1.98	ug/L	1.98		534-52-1	34
NELAC 4-Bromophenyl phenyl ether	<0.988	ug/L	0.988		101-55-3	34
NELAC 4-Chlorophenyl phenyl ethe	<0.988	ug/L	0.988		7005-72-3	34
NELAC 4-Nitrophenol	<0.988	ug/L	0.988		100-02-7	34
NELAC Acenaphthene	<0.988	ug/L	0.988		83-32-9	34
NELAC Acenaphthylene	<0.988	ug/L	0.988		208-96-8	34
z Aniline	<2.44	ug/L	2.44	S	62-53-3	34



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water

Collected by: Client
 Taken: 05/29/2024

SPACE X
 18:30:00

PO: 2605353

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Anthracene	<0.988	ug/L	0.988		120-12-7	34
NELAC Benzidine	<1.48	ug/L	1.48		92-87-5	34
NELAC Benzo(a)anthracene	<0.988	ug/L	0.988		56-55-3	34
NELAC Benzo(a)pyrene	<0.988	ug/L	0.988		50-32-8	34
NELAC Benzo(b)fluoranthene	<0.988	ug/L	0.988		205-99-2	34
NELAC Benzo(ghi)perylene	<0.988	ug/L	0.988		191-24-2	34
NELAC Benzo(k)fluoranthene	<0.988	ug/L	0.988		207-08-9	34
NELAC Benzyl Butyl phthalate	<7.41	ug/L	7.41		85-68-7	34
NELAC Bis(2-chloroethoxy)methane	<0.988	ug/L	0.988		111-91-1	34
NELAC Bis(2-chloroethyl)ether	<0.988	ug/L	0.988		111-44-4	34
NELAC Bis(2-chloroisopropyl)ether	<0.988	ug/L	0.988		108-60-1	34
NELAC Bis(2-ethylhexyl)phthalate	<7.41	ug/L	7.41		117-81-7	34
NELAC Chrysene (Benzo(a)phenanthrene)	<0.988	ug/L	0.988		218-01-9	34
NELAC Dibenz(a,h)anthracene	<0.988	ug/L	0.988		53-70-3	34
NELAC Diethyl phthalate	<5.63	ug/L	5.63		84-66-2	34
NELAC Dimethyl phthalate	<4.74	ug/L	4.74		131-11-3	34
NELAC Di-n-butylphthalate	<7.41	ug/L	7.41		84-74-2	34
NELAC Di-n-octylphthalate	<1.98	ug/L	1.98		117-84-0	34
NELAC Fluoranthene(Benzo(j,k)fluorene)	<0.988	ug/L	0.988		206-44-0	34
NELAC Fluorene	<0.988	ug/L	0.988		86-73-7	34
NELAC Hexachlorobenzene	<0.988	ug/L	0.988		118-74-1	34
NELAC Hexachlorobutadiene	<1.02	ug/L	1.02		87-68-3	34
NELAC Hexachlorocyclopentadiene	<0.988	ug/L	0.988		77-47-4	34
NELAC Hexachloroethane	<1.98	ug/L	1.98		67-72-1	34
NELAC Indeno(1,2,3-cd)pyrene	<0.988	ug/L	0.988		193-39-5	34
NELAC Isophorone	<0.988	ug/L	0.988		78-59-1	34
NELAC Naphthalene	<0.988	ug/L	0.988		91-20-3	34
NELAC Nitrobenzene	<0.988	ug/L	0.988		98-95-3	34
NELAC n-Nitrosodiethylamine	<0.988	ug/L	0.988	X	55-18-5	34
NELAC N-Nitrosodimethylamine	<0.988	ug/L	0.988		62-75-9	34
NELAC n-Nitroso-di-n-butylamine	<0.988	ug/L	0.988		924-16-3	34
NELAC N-Nitrosodi-n-propylamine	<0.988	ug/L	0.988		621-64-7	34
NELAC N-Nitrosodiphenylamine (as DPA)	<0.988	ug/L	0.988		86-30-6	34
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<0.988	ug/L	0.988		59-50-7	34
NELAC Pentachlorobenzene	<0.988	ug/L	0.988		608-93-5	34
NELAC Pentachlorophenol	<4.94	ug/L	4.94		87-86-5	34



SPAC-R

SPACE X
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1105141

Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phenanthrene	<0.988	ug/L	0.988		85-01-8	34
NELAC Phenol	<0.988	ug/L	0.988		108-95-2	34
NELAC Pyrene	<0.988	ug/L	0.988		129-00-0	34
NELAC Pyridine	<1.33	ug/L	1.33	X	110-86-1	34

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Calculated 1124511 06/19/2024 13:56:10 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cresols Total	<7.91	ug/L	7.91		1319-77-3, etc.	34

SM 2130 B-2011 Prepared: 1123697 06/11/2024 15:25:00 Analyzed 1123697 06/11/2024 15:25:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Turbidity	2.55	NTU	0.300	H		11

SM 2320 B-2011 Prepared: 1122797 06/07/2024 09:23:00 Analyzed 1122797 06/07/2024 09:23:00 KNI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Alkalinity (as CaCO3)	136	mg/L	1.00			18

SM 2540 C-2015 Prepared: 1122168 06/03/2024 08:30:00 Analyzed 1122168 06/03/2024 08:30:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	950	mg/L	50.0			11

SM 2540 D-2015 Prepared: 1121687 05/30/2024 15:00:00 Analyzed 1121687 05/30/2024 15:00:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Suspended Solids	7.50	mg/L	2.00			11

SM 3500-Cr B-2011 Prepared: 1121254 05/29/2024 18:30:00 Analyzed 1121254 05/29/2024 18:30:00 JMZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hex Cr, Field Preservation	preserved	ug/L	3		18540-29-9	



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Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 3500-Cr B-2011 Prepared: 1122575 06/05/2024 09:00:00 Analyzed 1122575 06/05/2024 09:00:00 ALB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	<3.00	ug/L	3.00		18540-29-9	19

SM 4500-CN⁻E-2016 Prepared: 1121649 05/31/2024 07:45:07 Analyzed 1122121 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	<0.00238	mg/L	0.00238			23

SM 4500-CN⁻G-2016 Prepared: 06/04/2024 16:15:50 Calculated 06/04/2024 16:15:50 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	<0.00238	mg/L	0.00238			

SM 4500-CN⁻G-2016 Prepared: 1121666 05/31/2024 09:01:54 Analyzed 1122125 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			29

SM 4500-H+ B-2011 Prepared: 1121148 05/28/2024 03:56:00 Analyzed 1121148 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
pH Client Provided	6.97	SU	0			

SM 4500-PE-2011 Prepared: 1121996 06/03/2024 12:10:00 Analyzed 1121996 06/03/2024 12:10:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.0241	mg/L	0.00311		7723-14-0	13

SM 5210 B-2016 Prepared: 1121636 05/31/2024 Analyzed 1121636 06/05/2024 13:39:32 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	8.49	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
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Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	2.08	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1121775 05/31/2024 11:00:00 Analyzed 1121775 05/31/2024 11:00:00 HLT

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			13

SM 5310 C-2014 Prepared: 1122326 06/05/2024 12:13:00 Analyzed 1122326 06/05/2024 12:13:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.53	mg/L	0.500			15

Sample Preparation

2302895 RETENTION POND

Received: 05/30/2024

05/29/2024

2605353

Prepared: 12/31/1899 10:21:18 Calculated 10:21:18 CAL

z Environmental Fee (per Project) Verified

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

z Nonyl Phenol Expansion Entered 36

EPA 1664B (HEM) Prepared: 1122284 06/05/2024 10:00:00 Analyzed 1122284 06/05/2024 10:00:00 MAX

NELAC O&G HEM Started Started



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2302895 RETENTION POND

Received: 05/30/2024
 2605353

05/29/2024

	<i>EPA 200.2 2.8</i>		<i>Prepared: 1121672 05/31/2024 08:00:00</i>	<i>Analyzed 1121672 05/31/2024 08:00:00</i>		<i>HLT</i>
z	Liquid Metals Digestion	50/50	ml			12
	<i>EPA 245.1 3</i>		<i>Prepared: 1121865 06/03/2024 10:30:00</i>	<i>Analyzed 1121865 06/03/2024 10:30:00</i>		<i>ALB</i>
NELAC	Mercury Liquid Metals Digestion	50/25	ml			12
	<i>EPA 350.2, Rev. 2.0</i>		<i>Prepared: 1121581 05/30/2024 15:18:42</i>	<i>Analyzed 1121581 05/30/2024 15:18:42</i>		<i>SRJ</i>
NELAC	Ammonia Distillation	6/6	ml			13
	<i>EPA 351.2, Rev 2.0</i>		<i>Prepared: 1121658 05/31/2024 08:22:52</i>	<i>Analyzed 1121658 05/31/2024 08:22:52</i>		<i>MEG</i>
NELAC	TKN Block Digestion	20/20	ml			14
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1121972 06/03/2024 14:30:00</i>		<i>MCC</i>
	PCB Liq-Liq Extr. W/Hex Exch.	10/605	ml			01
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1122623 06/06/2024 01:55:00</i>		<i>KAP</i>
NELAC	Polychlorinated Biphenyls	Entered				35
	<i>EPA 624.1</i>		<i>Prepared: 1121678 05/30/2024 17:55:00</i>	<i>Analyzed 1121678 05/30/2024 17:55:00</i>		<i>MRI</i>
NELAC	Acrolein/Acrylonitrile Exp.	Entered				04
	<i>EPA 624.1</i>		<i>Prepared: 1121680 05/30/2024 19:47:00</i>	<i>Analyzed 1121680 05/30/2024 19:47:00</i>		<i>MRI</i>
z	Table D-1/D-2 Volatile Expansion	Entered				07



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Received: 05/30/2024
 2605353

05/29/2024

EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1121954	06/03/2024	14:00:00	MCC
Liquid-Liquid Extraction, BNA	1/1012	ml					02
EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1124511	06/17/2024	20:50:00	PMI
NELAC Table D-1/ D-2 Semivolatiles Exp	Entered						34
EPA 625.1	Prepared: 1122298	06/05/2024	14:00:00	Analyzed 1122298	06/05/2024	14:00:00	MCC
Nonylphenol Liq-Liq Extract	1/892	ml					09
SM 2540 C-2015	Prepared: 1121816	06/03/2024	08:30:00	Analyzed 1121816	06/03/2024	08:30:00	ADR
NELAC Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1121228	05/30/2024	15:00:00	Analyzed 1121228	05/30/2024	15:00:00	ADR
NELAC TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1121649	05/31/2024	07:45:07	Analyzed 1121649	05/31/2024	07:45:07	MEG
NELAC Cyanide Distillation	10/5	ml					17
SM 4500-CN ⁻ C-2016	Prepared: 1121666	05/31/2024	09:01:54	Analyzed 1121666	05/31/2024	09:01:54	MEG
NELAC CN Dist After Chlorination	10/5	ml					17
SM 5210 B-2016	Prepared: 1121636	05/31/2024		Analyzed 1121636	05/31/2024	06:51:30	ESN
NELAC BOD Set Started	Started						



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Printed: 06/26/2024

2302895 RETENTION POND

Received: 05/30/2024
2605353

05/29/2024

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 05/31/2024 06:51:30 ESN

NELAC **BODc Set Started**

Started

Qualifiers:

J - Analyte detected below quantitation limit H - Sample started outside recommended holding time
X - Standard reads higher than desired. S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



QUALITY CONTROL



SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1105141

Printed 06/26/2024

Analytical Set **1121636**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385424
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385476
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385536

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2302815	17.2	18.0	mg/L	4.55	30.0
Biochemical Oxygen Demand (BOD5)	2302842	64.2	62.7	mg/L	2.36	30.0
Biochemical Oxygen Demand (BOD5)	2302972	8.48	11.4	mg/L	29.4	30.0
Biochemical Oxygen Demand (BOD5)	2303089	91.2	81.3	mg/L	11.5	30.0
Biochemical Oxygen Demand (BOD5)	2303148	9.52	9.70	mg/L	1.87	30.0
Biochemical Oxygen Demand (BOD5)	2303336	40.9	30.4	mg/L	29.5	30.0
Biochemical Oxygen Demand (BOD5)	2303410	4.83	4.19	mg/L	14.2	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.697	0.200	0.500	mg/L	126385426
Biochemical Oxygen Demand (BOD5)	1121636	0.850	0.200	0.500	mg/L	126385478
Biochemical Oxygen Demand (BOD5)	1121636	1.04	0.200	0.500	mg/L	126385538

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		226	198	mg/L	114	83.7 - 116	126385427
Biochemical Oxygen Demand (BOD5)		218	198	mg/L	110	83.7 - 116	126385479
Biochemical Oxygen Demand (BOD5)		216	198	mg/L	109	83.7 - 116	126385539

Analytical Set **1121637**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385562
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385614
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385664

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
BOD Carbonaceous	2302827	3.48	3.04	mg/L	13.5	30.0
BOD Carbonaceous	2302936	ND	ND	mg/L		30.0
BOD Carbonaceous	2303036	3.00	2.84	mg/L	5.48	30.0
BOD Carbonaceous	2303169	2.40	ND	mg/L	200 *	30.0
BOD Carbonaceous	2303211	2.48	2.28	mg/L	8.40	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.830	0.200	0.500	mg/L	126385564
BOD Carbonaceous	1121637	0.880	0.200	0.500	mg/L	126385616

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Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.840	0.200	0.500	mg/L	126385666

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
BOD Carbonaceous		226	198	mg/L	114	83.7 - 116	126385565
BOD Carbonaceous		217	198	mg/L	110	83.7 - 116	126385617
BOD Carbonaceous		219	198	mg/L	111	83.7 - 116	126385667

Analytical Set 1122121

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide, total	1121649	ND	0.00238	0.005	mg/L	126398027

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126398017
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398028
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398035
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398036
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398037
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398038
Cyanide, total	0.540	0.500	mg/L	108	90.0 - 110	126398039
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398040
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398048
Cyanide, total	0.527	0.500	mg/L	105	90.0 - 110	126398059

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	2302895	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.199	0.200	mg/L	99.5	90.0 - 110	126398016

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	1121649	0.361	0.364	0.400	90.0 - 110	90.2	91.0	mg/L	0.828	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide, total	2302895	0.362	ND	0.400	mg/L	90.5	90.0 - 110	126398033

Analytical Set 1122125

SM 4500-CN⁻ G-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide After Chlorination	1121666	ND	0.00119	0.0025	mg/L	126398194

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126398189
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398190
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398191
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398192
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398193
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398200
Cyanide After Chlorination	0.540	0.500	mg/L	108	90.0 - 110	126398204
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398215
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398219
Cyanide After Chlorination	0.527	0.500	mg/L	105	90.0 - 110	126398220

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide After Chlorination	2302508	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide After Chlorination	0.199	0.200	mg/L	99.5	90.0 - 110	126398188

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide After Chlorination	1121666	0.181	0.182	0.200	90.0 - 110	90.5	91.0	mg/L	0.551	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide After Chlorination	2302508	0.361	ND	0.400	mg/L	90.2	90.0 - 110	126398199

Analytical Set 1122132

EPA 351.2 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Kjeldahl Nitrogen	1121658	ND	0.00712	0.050	mg/L	126398380

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398368
Total Kjeldahl Nitrogen	5.20	5.00	mg/L	104	90.0 - 110	126398377
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398388
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398399
Total Kjeldahl Nitrogen	5.47	5.00	mg/L	109	90.0 - 110	126398410
Total Kjeldahl Nitrogen	5.44	5.00	mg/L	109	90.0 - 110	126398421
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126398432
Total Kjeldahl Nitrogen	5.29	5.00	mg/L	106	90.0 - 110	126398436
Total Kjeldahl Nitrogen	5.37	5.00	mg/L	107	90.0 - 110	126398437
Total Kjeldahl Nitrogen	4.93	5.00	mg/L	98.6	90.0 - 110	126398447
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	126398448
Total Kjeldahl Nitrogen	5.30	5.00	mg/L	106	90.0 - 110	126398449

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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	2302945	ND	ND	mg/L		20.0
Total Kjeldahl Nitrogen	2303187	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126398367

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	1121658	4.73	4.67	5.00	90.0 - 110	94.6	93.4	mg/L	1.28	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>	
Total Kjeldahl Nitrogen	2302945	-0.541	ND	5.00	mg/L	0	80.0 - 120	126398385	*
Total Kjeldahl Nitrogen	2303187	4.77	ND	5.00	mg/L	95.4	80.0 - 120	126398389	

Analytical Set 1122206

EPA 350.1 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Ammonia Nitrogen	1121581	ND	0.00336	0.020	mg/L	126399578

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399560
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399569
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399576
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399587
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399598
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126399608
Ammonia Nitrogen	2.13	2.00	mg/L	106	90.0 - 110	126399616
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399619
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399628
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399639
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399647
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399658
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399668
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399672
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399677
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399685
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399696
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399707
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399715
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399717

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	2302876	0.138	0.142	mg/L	2.86	20.0
Ammonia Nitrogen	2302888	0.090	0.086	mg/L	4.55	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399559

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	1121581	2.09	2.10	2.00	90.0 - 110	104	105	mg/L	0.477	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Ammonia Nitrogen	2302876	2.11	0.142	2.00	mg/L	98.4	80.0 - 120	126399583
Ammonia Nitrogen	2302888	2.19	0.086	2.00	mg/L	105	80.0 - 120	126399586

Analytical Set

1121687

SM 2540 D-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	ND	2	2	mg/L	126387239

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	-0.0001			grams	126387238

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2302808	10.6	10.3	mg/L	2.87	20.0
Total Suspended Solids	2302810	8.48	8.26	mg/L	2.63	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1121687	54.0	50.0	mg/L	108	90.0 - 110	126387257

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		108	100	mg/L	108	90.0 - 110	126387256

Analytical Set

1122168

SM 2540 C-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	5.00	5.00	5.00	mg/L	126398839

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	0.0005			grams	126398826

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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Dissolved Solids	2302642	18.0	ND	mg/L	200 *	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Dissolved Solids	1122168	198	200	mg/L	99.0	85.0 - 115	126398840

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Dissolved Solids		90.0	100	mg/L	90.0	90.0 - 110	126398827

Analytical Set 1122457

EPA 1664B (HEM)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Oil and Grease (HEM)	1122457	ND	0.804	4.00	mg/L	126408507

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Oil and Grease (HEM)	1122457	0.0005			grams	126408506
Oil and Grease (HEM)	1122457	0.0001			grams	126408531

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Oil and Grease (HEM)	1122457	37.4	40.0	mg/L	93.5	78.0 - 114	126408508

MS

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Oil and Grease (HEM)	2302895	39.9	0	3.60	40.0	78.0 - 114	99.8		mg/L		20.0

Analytical Set 1121871

EPA 300.0 2.1

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Fluoride	0.120	0.100	mg/L	120	70.0 - 130	126391539
Nitrate-Nitrogen Total	0.021	0.0226	mg/L	92.9	70.0 - 130	126391539

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1121871	ND	0.0972	0.300	mg/L	126391540
Fluoride	1121871	ND	0.010	0.100	mg/L	126391540
Nitrate-Nitrogen Total	1121871	ND	0.00745	0.0226	mg/L	126391540

CCB

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1121871	0.025	0.0972	0.300	mg/L	126391536
Chloride	1121871	0.012	0.0972	0.300	mg/L	126391552
Chloride	1121871	0.030	0.0972	0.300	mg/L	126391568
Fluoride	1121871	0	0.010	0.100	mg/L	126391536
Fluoride	1121871	0	0.010	0.100	mg/L	126391552

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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Fluoride	1121871	0	0.010	0.100	mg/L	126391568
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391536
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391552
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391568

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126391535
Chloride	9.99	10.0	mg/L	99.9	90.0 - 110	126391551
Chloride	10.0	10.0	mg/L	100	90.0 - 110	126391567
Fluoride	10.0	10.0	mg/L	100	90.0 - 110	126391535
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126391551
Fluoride	9.88	10.0	mg/L	98.8	90.0 - 110	126391567
Nitrate-Nitrogen Total	2.31	2.26	mg/L	102	90.0 - 110	126391535
Nitrate-Nitrogen Total	2.25	2.26	mg/L	99.6	90.0 - 110	126391551
Nitrate-Nitrogen Total	2.21	2.26	mg/L	97.8	90.0 - 110	126391567

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1121871	5.08	5.01	5.00	85.0 - 115	102	100	mg/L	1.39	20.0
Fluoride	1121871	4.81	4.77	5.00	88.0 - 120	96.2	95.4	mg/L	0.835	20.0
Nitrate-Nitrogen Total	1121871	1.13	1.10	1.13	88.0 - 116	100	97.3	mg/L	2.69	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2302484	323	323	231	100	80.0 - 120	92.0	92.0	mg/L	0	20.0
Fluoride	2302484	88.6	90.5	ND	100	80.0 - 120	88.6	90.5	mg/L	2.12	20.0
Nitrate-Nitrogen Total	2302484	22.0	22.0	0.767	22.6	80.0 - 120	94.0	94.0	mg/L	0	20.0
Chloride	2302487	1880	1840	1690	200	80.0 - 120	95.0	75.0 *	mg/L	23.5 *	20.0
Fluoride	2302487	176	177	ND	200	80.0 - 120	88.0	88.5	mg/L	0.567	20.0
Nitrate-Nitrogen Total	2302487	44.9	43.9	1.72	45.2	80.0 - 120	95.5	93.3	mg/L	2.34	20.0

Analytical Set 1122502

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	ND	0.254	0.300	mg/L	126409510

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	0	0.254	0.300	mg/L	126409506
Sulfate	1122502	0	0.254	0.300	mg/L	126409526
Sulfate	1122502	0	0.254	0.300	mg/L	126409538

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.79	10.0	mg/L	97.9	90.0 - 110	126409505

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Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.56	10.0	mg/L	95.6	90.0 - 110	126409525
Sulfate	9.60	10.0	mg/L	96.0	90.0 - 110	126409537

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1122502	4.68	4.68	5.00	85.0 - 115	93.6	93.6	mg/L	0	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2302895	362	367	282	100	80.0 - 120	80.0	85.0	mg/L	6.06	20.0
Sulfate	2303362	411	401	340	100	80.0 - 120	71.0 *	61.0 *	mg/L	15.2	20.0

Analytical Set 1121966

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1121865	ND	0.113	0.200	ug/L	126393298

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.89	5.000	ug/L	97.8	90.0 - 110	126393282
Mercury, Total	4.90	5.000	ug/L	98.0	90.0 - 110	126393283
Mercury, Total	4.84	5.000	ug/L	96.8	90.0 - 110	126393297
Mercury, Total	4.77	5.000	ug/L	95.4	90.0 - 110	126393304
Mercury, Total	4.81	5.000	ug/L	96.2	90.0 - 110	126393311

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	19.9	20.00	ug/L	99.5	90.0 - 110	126393281

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.98	5.000	ug/L	99.6	90.0 - 110	126393280

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total	1121865	8.94	8.99	10.0	85.0 - 115	89.4	89.9	ug/L	0.558	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total	2302895	8.99	9.05	ND	10.0	70.0 - 130	89.9	90.5	ug/L	0.665	20.0

Analytical Set 1122038

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Aluminum, Total	1121672	ND	0.00171	0.00171	mg/L	126395960
Arsenic, Total	1121672	ND	0.000184	0.001	mg/L	126395960
Barium, Total	1121672	ND	0.000635	0.001	mg/L	126395960

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Beryllium, Total	1121672	ND	0.000139	0.001	mg/L	126395960
Cadmium, Total	1121672	ND	0.000067	0.001	mg/L	126395960
Chromium, Total	1121672	ND	0.000621	0.001	mg/L	126395960
Copper, Total	1121672	ND	0.00155	0.00155	mg/L	126395960
Lead, Total	1121672	ND	0.000244	0.001	mg/L	126395960
Nickel, Total	1121672	ND	0.00112	0.00112	mg/L	126395960
Silver, Total	1121672	ND	0.000226	0.001	mg/L	126395960
Thallium, Total	1121672	ND	0.000106	0.001	mg/L	126395960
Zinc, Total	1121672	ND	0.000875	0.001	mg/L	126395960

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395958
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395959
Aluminum, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395966
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396000
Aluminum, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396005
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126396011
Aluminum, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396017
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396024
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396034
Aluminum, Total	0.0541	0.05	mg/L	108	90.0 - 110	126396066
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126396077
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396083
Arsenic, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395959
Arsenic, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126395966
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126395971
Arsenic, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396005
Arsenic, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396011
Arsenic, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396017
Barium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Barium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Barium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395971
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396000
Barium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126396005
Barium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Barium, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396017
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396024
Beryllium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126395959
Beryllium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126395966
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395971
Cadmium, Total	0.0504	0.05	mg/L	101	90.0 - 110	126395958
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395966

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QUALITY CONTROL



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<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Cadmium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396005
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396017
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126395959
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Chromium, Total	0.0518	0.05	mg/L	104	90.0 - 110	126395972
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395973
Chromium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126395980
Chromium, Total	0.0461	0.05	mg/L	92.2	90.0 - 110	126395986
Chromium, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126395992
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396000
Chromium, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	126396005
Chromium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396011
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396017
Chromium, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126396024
Copper, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126395959
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Copper, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396005
Copper, Total	0.0457	0.05	mg/L	91.4	90.0 - 110	126396011
Copper, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126396017
Copper, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126396024
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396034
Copper, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396045
Copper, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396056
Copper, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396066
Copper, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126396077
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396083
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396094
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396105
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396110
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395959
Lead, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126395971
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395980
Lead, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126395986
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395992
Lead, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396000
Lead, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396005
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396011
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396017
Lead, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396024
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396034

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QUALITY CONTROL



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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396045
Lead, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126396056
Lead, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396066
Lead, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396077
Lead, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396083
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396094
Lead, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126396105
Lead, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396110
Nickel, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395959
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395966
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126395971
Nickel, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396005
Nickel, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396011
Nickel, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396017
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395958
Silver, Total	0.0538	0.05	mg/L	108	90.0 - 110	126395959
Silver, Total	0.0537	0.05	mg/L	107	90.0 - 110	126395966
Silver, Total	0.0536	0.05	mg/L	107	90.0 - 110	126395971
Silver, Total	0.052	0.05	mg/L	104	90.0 - 110	126396011
Silver, Total	0.0526	0.05	mg/L	105	90.0 - 110	126396017
Silver, Total	0.0528	0.05	mg/L	106	90.0 - 110	126396066
Silver, Total	0.0523	0.05	mg/L	105	90.0 - 110	126396077
Thallium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395959
Thallium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395966
Thallium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395971
Thallium, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396005
Thallium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Thallium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396017
Thallium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396024
Zinc, Total	0.0509	0.05	mg/L	102	90.0 - 110	126395959
Zinc, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Zinc, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395971
Zinc, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396005
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396017
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126396034
Zinc, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396045
Zinc, Total	0.0502	0.05	mg/L	100	90.0 - 110	126396066
Zinc, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126396077
Zinc, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396083

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Arsenic, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953

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SPAC-R

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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Barium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395953
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Cadmium, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953
Chromium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Lead, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395953
Nickel, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395953
Thallium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Zinc, Total	0.0508	0.05	mg/L	102	90.0 - 110	126395953

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Aluminum, Total	1121672	0.512	0.505	0.500	85.0 - 115	102	101	mg/L	1.38	20.0
Arsenic, Total	1121672	0.501	0.493	0.500	85.0 - 115	100	98.6	mg/L	1.61	20.0
Barium, Total	1121672	0.504	0.502	0.500	85.0 - 115	101	100	mg/L	0.398	20.0
Beryllium, Total	1121672	0.206	0.208	0.200	85.0 - 115	103	104	mg/L	0.966	20.0
Cadmium, Total	1121672	0.257	0.255	0.250	85.0 - 115	103	102	mg/L	0.781	20.0
Chromium, Total	1121672	0.495	0.489	0.500	85.0 - 115	99.0	97.8	mg/L	1.22	20.0
Copper, Total	1121672	0.506	0.502	0.500	85.0 - 115	101	100	mg/L	0.794	20.0
Lead, Total	1121672	0.518	0.517	0.500	85.0 - 115	104	103	mg/L	0.193	20.0
Nickel, Total	1121672	0.505	0.504	0.500	85.0 - 115	101	101	mg/L	0.198	20.0
Silver, Total	1121672	0.107	0.108	0.100	85.0 - 115	107	108	mg/L	0.930	20.0
Thallium, Total	1121672	0.518	0.516	0.500	85.0 - 115	104	103	mg/L	0.387	20.0
Zinc, Total	1121672	0.512	0.510	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

LDR

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	10.4	10	mg/L	104	90.0 - 110	126395955
Arsenic, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955
Barium, Total	9.52	10	mg/L	95.2	90.0 - 110	126395955
Beryllium, Total	10.3	10	mg/L	103	90.0 - 110	126395955
Cadmium, Total	9.71	10	mg/L	97.1	90.0 - 110	126395955
Chromium, Total	9.65	10	mg/L	96.5	90.0 - 110	126395955
Copper, Total	9.33	10	mg/L	93.3	90.0 - 110	126395955
Lead, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Manganese, Total	9.53	10	mg/L	95.3	90.0 - 110	126395955
Nickel, Total	9.56	10	mg/L	95.6	90.0 - 110	126395955
Thallium, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Zinc, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126395954
Lead, Total	0.000616	0.001	mg/L	61.6	25.0 - 175	126395954



QUALITY CONTROL



SPAC-R

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Arsenic, Total	2303140	0.508	0.502	0.00457	0.500	70.0 - 130	101	99.5	mg/L	1.20	20.0
Beryllium, Total	2303140	0.212	0.209	ND	0.200	70.0 - 130	106	104	mg/L	1.43	20.0
Chromium, Total	2303140	0.488	0.500	0.00079	0.500	70.0 - 130	97.4	99.8	mg/L	2.43	20.0
Lead, Total	2303140	0.521	0.514	0.000346	0.500	70.0 - 130	104	103	mg/L	1.35	20.0
Nickel, Total	2303140	0.505	0.496	0.0021	0.500	70.0 - 130	101	98.8	mg/L	1.81	20.0
Silver, Total	2303140	0.108	0.106	ND	0.100	70.0 - 130	108	106	mg/L	1.87	20.0
Zinc, Total	2303140	0.526	0.521	0.0197	0.500	70.0 - 130	101	100	mg/L	0.992	20.0
Aluminum, Total	2303221	0.529	0.552	0.0225	0.500	70.0 - 130	101	106	mg/L	4.44	20.0
Barium, Total	2303221	0.502	0.508	0.00469	0.500	70.0 - 130	99.5	101	mg/L	1.20	20.0
Cadmium, Total	2303221	0.252	0.252	0.000148	0.250	70.0 - 130	101	101	mg/L	0	20.0
Copper, Total	2303221	0.506	0.515	0.0092	0.500	70.0 - 130	99.4	101	mg/L	1.80	20.0

Analytical Set 1122039

EPA 200.8 5.4

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Thallium, Total	2303221	0.524	0.522	0.000329	0.500	81.1 - 109	105	104	mg/L	0.383	20.0

Analytical Set 1122326

SM 5310 C-2014

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	2.15	2.00	mg/L	108	50.0 - 150	126402004

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.136	0.0618	0.500	mg/L	126402003

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.0999	0.0618	0.500	mg/L	126401997
Total Organic Carbon	1122326	0.154	0.0618	0.500	mg/L	126402015

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126402000
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402016

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126401999

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402001

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Organic Carbon	1122326	5.05	5.00	mg/L	101	85.0 - 115	126402002

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MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Total Organic Carbon	2302870	10.4	10.4	0.865	10.0	85.0 - 115	95.4	95.4	mg/L	0	20.0

Standard							
<i>Parameter</i>	<i>Sample</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Total Organic Carbon		49.1	50.0	mg/L	98.2	90.0 - 110	126401998

Analytical Set 1122450

EPA 200.8 5.4

Blank							
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>	
Selenium, Total	1121672	0.000873	0.000728	0.002	mg/L	126408062	

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126407962	
Selenium, Total	0.0503	0.05	mg/L	101	90.0 - 110	126407972	
Selenium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126407982	
Selenium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126407989	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408000	
Selenium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126408005	
Selenium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126408012	
Selenium, Total	0.050	0.05	mg/L	100	90.0 - 110	126408013	
Selenium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126408022	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408061	
Selenium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126408066	
Selenium, Total	0.0516	0.05	mg/L	103	90.0 - 110	126408072	

ICV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126407941	

LCS Dup										
<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	1121672	0.494	0.494	0.500	85.0 - 115	98.8	98.8	mg/L	0	20.0

MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	2303221	0.484	0.481	0.00162	0.500	70.0 - 130	96.5	95.9	mg/L	0.624	20.0

Analytical Set 1122575

SM 3500-Cr B-2011

Blank							
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>	
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411861	
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411873	

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Hexavalent Chromium	85.2	80.0	ug/L	106	90.0 - 110	126411862	

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexavalent Chromium	85.4	80.0	ug/L	107	90.0 - 110	126411874

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexavalent Chromium	1122575	85.4	86.2	80.0	85.0 - 115	107	108	ug/L	0.932	15.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Hexavalent Chromium	2304236	68.6	67.6	ND	80.0	70.0 - 130	85.8	84.5	ug/L	1.47	20.0

Analytical Set 1123260

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Antimony, Total	1121672	ND	0.000847	0.003	mg/L	126429301

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0525	0.05	mg/L	105	90.0 - 110	126429267
Antimony, Total	0.0537	0.05	mg/L	107	90.0 - 110	126429277
Antimony, Total	0.0533	0.05	mg/L	107	90.0 - 110	126429287
Antimony, Total	0.053	0.05	mg/L	106	90.0 - 110	126429295
Antimony, Total	0.0539	0.05	mg/L	108	90.0 - 110	126429305
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429311
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429321
Antimony, Total	0.0541	0.05	mg/L	108	90.0 - 110	126429331

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.050	0.05	mg/L	100	90.0 - 110	126429237

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Antimony, Total	1121672	0.516	0.514	0.500	85.0 - 115	103	103	mg/L	0.388	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Antimony, Total	2303221	0.511	0.517	ND	0.500	70.0 - 130	102	103	mg/L	1.17	20.0

Analytical Set 1123498

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1121672	ND	0.0156	0.500	mg/L	126434927
Iron, Total	1121672	ND	0.00379	0.025	mg/L	126434927

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126434920

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	25.1	25.0	mg/L	100	90.0 - 110	126434930
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126434936
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126434920
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434930
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126434936

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126434914
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126434914

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126434918
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434918

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1121672	4.91	4.89	5.00	85.0 - 115	98.2	97.8	mg/L	0.408	25.0
Iron, Total	1121672	0.498	0.497	0.500	85.0 - 115	99.6	99.4	mg/L	0.201	25.0

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126434919
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126434919

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2303221	6.42	6.55	1.56	5.00	75.0 - 125	97.2	99.8	mg/L	2.64	25.0
Iron, Total	2303221	0.560	0.563	0.080	0.500	75.0 - 125	96.0	96.6	mg/L	0.623	25.0

Analytical Set **1123699**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MDL</u>	<u>Units</u>	<u>File</u>
Manganese, Total	1121672	ND	0.000168	0.001	mg/L	126440088

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Manganese, Total	0.0529	0.05	mg/L	106	90.0 - 110	126440082
Manganese, Total	0.052	0.05	mg/L	104	90.0 - 110	126440092
Manganese, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126440119
Manganese, Total	0.050	0.05	mg/L	100	90.0 - 110	126440128
Manganese, Total	0.0535	0.05	mg/L	107	90.0 - 110	126440204
Manganese, Total	0.0508	0.05	mg/L	102	90.0 - 110	126440235
Manganese, Total	0.0516	0.05	mg/L	103	90.0 - 110	126440243
Manganese, Total	0.0538	0.05	mg/L	108	90.0 - 110	126440254

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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126440073

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Manganese, Total	1121672	0.510	0.512	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126440074

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Manganese, Total	2303221	0.504	0.501	0.00211	0.500	70.0 - 130	100	99.8	mg/L	0.600	20.0

Analytical Set 1121678

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1121678	174	10	1.5	0 - 2.00	126387047
BFB Mass 174	1121678	95.0	676	60.4	50.0 - 100	126387047
BFB Mass 175	1121678	174	50	7.4	5.00 - 9.00	126387047
BFB Mass 176	1121678	174	648	95.9	95.0 - 101	126387047
BFB Mass 177	1121678	176	44	6.8	5.00 - 9.00	126387047
BFB Mass 50	1121678	95.0	225	20.1	15.0 - 40.0	126387047
BFB Mass 75	1121678	95.0	557	49.8	30.0 - 60.0	126387047
BFB Mass 95	1121678	95.0	1118	100.0	100 - 100	126387047
BFB Mass 96	1121678	95.0	73	6.5	5.00 - 9.00	126387047

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Acrolein	1121678	ND	2.33	4.00	ug/L	126387051
Acrylonitrile	1121678	ND	0.998	1.00	ug/L	126387051

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	170700	179900	89970	269900	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	168300	179900	89970	269900	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	143200	179900	89970	269900	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	373700	398400	199200	597600	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	381600	398400	199200	597600	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	337200	398400	199200	597600	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	174400	179900	89970	269900	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	396500	398400	199200	597600	126387055	1121678

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	11.97	11.97	11.91	12.03	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	11.97	11.97	11.91	12.03	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	11.97	11.97	11.91	12.03	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	9.597	9.597	9.537	9.657	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	9.597	9.597	9.537	9.657	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	9.597	9.597	9.537	9.657	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387055	1121678

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1121678	58.0	55.0	40.0	60.0 - 140	145 *	138	ug/L	4.95	30.0
Acrylonitrile	1121678	34.4	33.8	40.0	60.0 - 140	86.0	84.5	ug/L	1.76	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2301862	17.9	34.6	ND	400	40.0 - 160	4.48 *	8.65 *	ug/L	63.6 *	60.0
Acrylonitrile	2301862	19.8	3.00	ND	400	40.0 - 160	4.95 *	0.750 *	ug/L	147 *	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121678	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387049
1,2-DCA-d4 (SURR)	1121678	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387050
1,2-DCA-d4 (SURR)	1121678	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387051
Bromofluorobenzene (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Bromofluorobenzene (SURR)	1121678	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387050
Bromofluorobenzene (SURR)	1121678	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387051
Dibromofluoromethane (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Dibromofluoromethane (SURR)	1121678	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387050
Dibromofluoromethane (SURR)	1121678	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387051
TolueneD8 (SURR)	1121678	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387049
TolueneD8 (SURR)	1121678	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387050
TolueneD8 (SURR)	1121678	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387051
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387053
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387054
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387053
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387053
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387054
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387053
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
1,2-DCA-d4 (SURR)	2302895	Unknown	19.8	20.0	ug/L	99.0	70.0 - 130	126387055

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QUALITY CONTROL



SPAC-R

SPACEX
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Space Exploration Technologies
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Brownsville, TX 78521

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2302895	Unknown	20.3	20.0	ug/L	102	70.0 - 130	126387055
Dibromofluoromethane (SURR)	2302895	Unknown	20.1	20.0	ug/L	100	70.0 - 130	126387055
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387055

Analytical Set

1121680

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1121680	174	10	1.5	0 - 2.00	126387066
BFB Mass 174	1121680	95.0	676	60.4	50.0 - 100	126387066
BFB Mass 175	1121680	174	50	7.4	5.00 - 9.00	126387066
BFB Mass 176	1121680	174	648	95.9	95.0 - 101	126387066
BFB Mass 177	1121680	176	44	6.8	5.00 - 9.00	126387066
BFB Mass 50	1121680	95.0	225	20.1	15.0 - 40.0	126387066
BFB Mass 75	1121680	95.0	557	49.8	30.0 - 60.0	126387066
BFB Mass 95	1121680	95.0	1118	100.0	100 - 100	126387066
BFB Mass 96	1121680	95.0	73	6.5	5.00 - 9.00	126387066

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,1,1-Trichloroethane	1121680	ND	0.531	1.00	ug/L	126387070
1,1,2-Trichloroethane	1121680	ND	0.563	1.00	ug/L	126387070
1,1-Dichloroethane	1121680	ND	0.593	1.00	ug/L	126387070
1,1-Dichloroethylene	1121680	ND	0.574	1.00	ug/L	126387070
1,2-Dibromoethane (EDB)	1121680	ND	0.562	1.00	ug/L	126387070
1,2-Dichloroethane	1121680	ND	0.590	1.00	ug/L	126387070
1,2-Dichloropropane	1121680	ND	0.615	1.00	ug/L	126387070
Benzene	1121680	ND	0.453	1.00	ug/L	126387070
Bromodichloromethane	1121680	ND	0.409	1.00	ug/L	126387070
Bromoform	1121680	ND	0.500	1.00	ug/L	126387070
Carbon Tetrachloride	1121680	ND	0.299	1.00	ug/L	126387070
Chlorobenzene	1121680	ND	0.558	1.00	ug/L	126387070
Chloroethane	1121680	ND	1.12	1.12	ug/L	126387070
Chloroform	1121680	ND	0.463	1.00	ug/L	126387070
Chloromethane (Methyl Chloride)	1121680	ND	0.811	1.00	ug/L	126387070
cis-1,3-Dichloropropene	1121680	ND	0.660	1.00	ug/L	126387070
Dibromochloromethane	1121680	ND	0.311	1.00	ug/L	126387070
Dichloromethane	1121680	ND	1.02	1.02	ug/L	126387070
Ethylbenzene	1121680	ND	0.498	1.00	ug/L	126387070
m-Dichlorobenzene (1,3-DCB)	1121680	ND	0.619	1.00	ug/L	126387070
Methyl ethyl ketone (Butanone)	1121680	ND	0.742	1.00	ug/L	126387070
o-Dichlorobenzene (1,2-DCB)	1121680	0.620	0.532	1.00	ug/L	126387070
p-Dichlorobenzene (1,4-DCB)	1121680	ND	0.837	1.00	ug/L	126387070
Tetrachloroethylene	1121680	ND	0.607	1.00	ug/L	126387070
Toluene	1121680	ND	0.655	1.00	ug/L	126387070
trans-1,2-Dichloroethylene	1121680	ND	0.701	1.00	ug/L	126387070

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Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
trans-1,3-Dichloropropene	1121680	ND	0.627	1.00	ug/L	126387070
Trichloroethylene	1121680	ND	0.521	1.00	ug/L	126387070
Vinyl chloride	1121680	ND	0.702	1.00	ug/L	126387070

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	170700	179900	89970	269900	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	168300	179900	89970	269900	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	143200	179900	89970	269900	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	373700	398400	199200	597600	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	381600	398400	199200	597600	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	337200	398400	199200	597600	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	192300	179900	89970	269900	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	439200	398400	199200	597600	126387074	1121680

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	11.97	11.97	11.91	12.03	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	11.97	11.97	11.91	12.03	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	11.97	11.97	11.91	12.03	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	9.597	9.597	9.537	9.657	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	9.597	9.597	9.537	9.657	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	9.597	9.597	9.537	9.657	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387074	1121680

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1121680	17.0	16.2	20.0	70.0 - 130	85.0	81.0	ug/L	4.82	21.0
1,1,2,2-Tetrachloroethane	1121680	18.3	17.9	20.0	60.0 - 140	91.5	89.5	ug/L	2.21	36.0
1,1,2-Trichloroethane	1121680	18.2	17.6	20.0	70.0 - 130	91.0	88.0	ug/L	3.35	27.0
1,1-Dichloroethane	1121680	17.6	16.6	20.0	70.0 - 130	88.0	83.0	ug/L	5.85	24.0
1,1-Dichloroethylene	1121680	17.1	16.2	20.0	50.0 - 150	85.5	81.0	ug/L	5.41	40.0
1,2-Dibromoethane (EDB)	1121680	18.4	17.5	20.0	78.4 - 122	92.0	87.5	ug/L	5.01	30.0
1,2-Dichloroethane	1121680	17.9	17.2	20.0	70.0 - 130	89.5	86.0	ug/L	3.99	29.0
1,2-Dichloropropane	1121680	18.0	17.2	20.0	35.0 - 165	90.0	86.0	ug/L	4.55	69.0
Benzene	1121680	17.1	16.4	20.0	65.0 - 135	85.5	82.0	ug/L	4.18	33.0
Bromodichloromethane	1121680	18.2	17.2	20.0	65.0 - 135	91.0	86.0	ug/L	5.65	34.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bromoform	1121680	17.4	17.0	20.0	70.0 - 130	87.0	85.0	ug/L	2.33	25.0
Bromomethane (Methyl Bromi	1121680	13.7	13.8	20.0	15.0 - 185	68.5	69.0	ug/L	0.727	90.0
Carbon Tetrachloride	1121680	17.6	16.9	20.0	70.0 - 130	88.0	84.5	ug/L	4.06	26.0
Chlorobenzene	1121680	18.0	17.2	20.0	65.0 - 135	90.0	86.0	ug/L	4.55	29.0
Chloroethane	1121680	15.2	15.0	20.0	40.0 - 160	76.0	75.0	ug/L	1.32	47.0
Chloroform	1121680	17.6	16.3	20.0	70.0 - 135	88.0	81.5	ug/L	7.67	32.0
Chloromethane (Methyl Chloride)	1121680	12.7	12.1	20.0	0.100 - 205	63.5	60.5	ug/L	4.84	472
cis-1,3-Dichloropropene	1121680	16.8	16.1	20.0	25.0 - 175	84.0	80.5	ug/L	4.26	79.0
Dibromochloromethane	1121680	18.5	17.6	20.0	70.0 - 135	92.5	88.0	ug/L	4.99	30.0
Dichloromethane	1121680	16.9	16.1	20.0	60.0 - 140	84.5	80.5	ug/L	4.85	192
Ethylbenzene	1121680	19.1	18.2	20.0	60.0 - 140	95.5	91.0	ug/L	4.83	34.0
m-Dichlorobenzene (1,3-DCB)	1121680	20.0	20.2	20.0	70.0 - 130	100	101	ug/L	0.995	24.0
Methyl ethyl ketone (Butanone)	1121680	18.6	16.8	20.0	62.3 - 136	93.0	84.0	ug/L	10.2	30.0
o-Dichlorobenzene (1,2-DCB)	1121680	18.9	18.4	20.0	65.0 - 135	94.5	92.0	ug/L	2.68	31.0
p-Dichlorobenzene (1,4-DCB)	1121680	18.7	18.7	20.0	65.0 - 135	93.5	93.5	ug/L	0	31.0
Tetrachloroethylene	1121680	19.0	18.4	20.0	70.0 - 130	95.0	92.0	ug/L	3.21	23.0
Toluene	1121680	17.3	16.5	20.0	70.0 - 130	86.5	82.5	ug/L	4.73	22.0
trans-1,2-Dichloroethylene	1121680	16.5	15.7	20.0	70.0 - 130	82.5	78.5	ug/L	4.97	27.0
trans-1,3-Dichloropropene	1121680	17.6	16.5	20.0	50.0 - 150	88.0	82.5	ug/L	6.45	52.0
Trichloroethylene	1121680	17.0	16.3	20.0	65.0 - 135	85.0	81.5	ug/L	4.20	29.0
Vinyl chloride	1121680	14.1	13.5	20.0	5.00 - 195	70.5	67.5	ug/L	4.35	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2301862	169	162	ND	200	52.0 - 162	84.5	81.0	ug/L	4.23	36.0
1,1,2,2-Tetrachloroethane	2301862	0	3.90	ND	200	70.0 - 130	*	1.95 *	ug/L		30.0
1,1,2-Trichloroethane	2301862	174	169	ND	200	52.0 - 150	87.0	84.5	ug/L	2.92	45.0
1,1-Dichloroethane	2301862	194	181	ND	200	59.0 - 155	97.0	90.5	ug/L	6.93	40.0
1,1-Dichloroethylene	2301862	182	173	ND	200	0.100 - 234	91.0	86.5	ug/L	5.07	32.0
1,2-Dibromoethane (EDB)	2301862	176	175	ND	200	49.3 - 120	88.0	87.5	ug/L	0.570	30.0
1,2-Dichloroethane	2301862	171	162	ND	200	49.0 - 155	85.5	81.0	ug/L	5.41	49.0
1,2-Dichloropropane	2301862	182	179	ND	200	0.100 - 210	91.0	89.5	ug/L	1.66	55.0
Benzene	2301862	183	171	ND	200	37.0 - 151	91.5	85.5	ug/L	6.78	61.0
Bromodichloromethane	2301862	166	163	ND	200	35.0 - 155	83.0	81.5	ug/L	1.82	56.0
Bromoform	2301862	87.1	91.9	ND	200	45.0 - 169	43.6 *	46.0	ug/L	5.36	42.0
Bromomethane (Methyl Bromi	2301862	117	113	ND	200	0.100 - 242	58.5	56.5	ug/L	3.48	61.0
Carbon Tetrachloride	2301862	161	147	ND	200	70.0 - 140	80.5	73.5	ug/L	9.09	41.0
Chlorobenzene	2301862	184	181	ND	200	37.0 - 160	92.0	90.5	ug/L	1.64	53.0
Chloroethane	2301862	160	150	ND	200	14.0 - 230	80.0	75.0	ug/L	6.45	78.0
Chloroform	2301862	184	168	ND	200	51.0 - 138	92.0	84.0	ug/L	9.09	54.0
Chloromethane (Methyl Chloride)	2301862	135	132	ND	200	0.100 - 273	67.5	66.0	ug/L	2.25	60.0
cis-1,3-Dichloropropene	2301862	168	165	ND	200	0.100 - 227	84.0	82.5	ug/L	1.80	58.0
Dibromochloromethane	2301862	161	160	ND	200	53.0 - 149	80.5	80.0	ug/L	0.623	50.0
Dichloromethane	2301862	170	164	ND	200	0.100 - 221	85.0	82.0	ug/L	3.59	28.0
Ethylbenzene	2301862	203	200	ND	200	37.0 - 162	102	100	ug/L	1.49	63.0

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QUALITY CONTROL



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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
m-Dichlorobenzene (1,3-DCB)	2301862	216	227	ND	200	59.0 - 156	108	114	ug/L	4.97	43.0
Methyl ethyl ketone (Butanone)	2301862	0	0	ND	200	0.100 - 211	0 *	0 *	ug/L		30.0
o-Dichlorobenzene (1,2-DCB)	2301862	177	185	ND	200	18.0 - 190	88.5	92.5	ug/L	4.42	57.0
p-Dichlorobenzene (1,4-DCB)	2301862	191	217	ND	200	18.0 - 190	95.5	108	ug/L	12.7	57.0
Tetrachloroethylene	2301862	206	205	ND	200	64.0 - 148	103	102	ug/L	0.487	39.0
Toluene	2301862	182	176	ND	200	47.0 - 150	91.0	88.0	ug/L	3.35	41.0
trans-1,2-Dichloroethylene	2301862	166	154	ND	200	54.0 - 156	83.0	77.0	ug/L	7.50	45.0
trans-1,3-Dichloropropene	2301862	172	173	ND	200	17.0 - 183	86.0	86.5	ug/L	0.580	86.0
Trichloroethylene	2301862	348	342	ND	200	70.0 - 157	174 *	171 *	ug/L	1.74	48.0
Vinyl chloride	2301862	144	137	ND	200	0.100 - 251	72.0	68.5	ug/L	4.98	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121680	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387068
1,2-DCA-d4 (SURR)	1121680	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387069
1,2-DCA-d4 (SURR)	1121680	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387070
Bromofluorobenzene (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Bromofluorobenzene (SURR)	1121680	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387069
Bromofluorobenzene (SURR)	1121680	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387070
Dibromofluoromethane (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Dibromofluoromethane (SURR)	1121680	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387069
Dibromofluoromethane (SURR)	1121680	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387070
TolueneD8 (SURR)	1121680	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387068
TolueneD8 (SURR)	1121680	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387069
TolueneD8 (SURR)	1121680	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387070
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387072
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387073
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387072
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387072
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387073
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387072
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
1,2-DCA-d4 (SURR)	2302895	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126387074
Bromofluorobenzene (SURR)	2302895	Unknown	20.6	20.0	ug/L	103	70.0 - 130	126387074
Dibromofluoromethane (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074

Analytical Set

1122623

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
PCB-1016	1121972	ND	0.202	0.202	ug/L	126412989
PCB-1221	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1232	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1242	1121972	ND	0.192	0.200	ug/L	126412989

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QUALITY CONTROL



SPAC-R

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1248	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1254	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1260	1121972	ND	0.161	0.200	ug/L	126412989
PCB-1262	1121972	ND	0.198	0.200	ug/L	126412989
PCB-1268	1121972	ND	0.143	0.200	ug/L	126412989

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	968	1000	ug/L	96.8	80.0 - 115	126412978
PCB-1016	1140	1000	ug/L	114	80.0 - 115	126412988
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412997
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412998
PCB-1260	853	1000	ug/L	85.3	80.0 - 115	126412978
PCB-1260	939	1000	ug/L	93.9	80.0 - 115	126412988
PCB-1260	1010	1000	ug/L	101	80.0 - 115	126412997
PCB-1260	987	1000	ug/L	98.7	80.0 - 115	126412998

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1121972	941	859	1000	39.8 - 135	94.1	85.9	ug/L	9.11	30.0
PCB-1260	1121972	728	711	1000	36.1 - 134	72.8	71.1	ug/L	2.36	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1121972	Blank	55.6	100	ug/L	55.6	10.0 - 200	126412989
Tetrachloro-m-Xylene (Surr)	1121972	Blank	46.2	100	ug/L	46.2	10.0 - 200	126412989
Decachlorobiphenyl	2302895	Unknown	1.26	1.65	ug/L	76.4	10.0 - 200	126412995
Tetrachloro-m-Xylene (Surr)	2302895	Unknown	0.697	1.65	ug/L	42.2	10.0 - 200	126412995

Analytical Set

1122871

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1122298	ND	5.00	30.0	ug/L	126419398

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	293000	300000	ug/L	97.5	70.0 - 130	126419397
Nonylphenol	299000	300000	ug/L	99.7	70.0 - 130	126419405

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	760100	760100	380100	1140000	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	706900	760100	380100	1140000	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	981000	981000	490500	1471000	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	925500	981000	490500	1471000	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	681400	760100	380100	1140000	126419398	1122298

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IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	1122298	LCS	663100	760100	380100	1140000	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	581500	760100	380100	1140000	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	930700	981000	490500	1471000	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	890000	981000	490500	1471000	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	773800	981000	490500	1471000	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	536500	760100	380100	1140000	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	747500	981000	490500	1471000	126419403	1122298

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	7.294	7.294	7.234	7.354	126419398	1122298
Acenaphthene-d10-ISTD	1122298	LCS	7.300	7.294	7.234	7.354	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	7.300	7.294	7.234	7.354	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	8.532	8.538	8.478	8.598	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	8.538	8.538	8.478	8.598	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	8.538	8.538	8.478	8.598	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	7.294	7.294	7.234	7.354	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	8.532	8.538	8.478	8.598	126419403	1122298

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1122298	124	127	150	56.0 - 112	82.7	84.7	ug/L	2.39	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	624841	CCV	49000	50000	ug/L	98.0	50.0 - 130	126419397
4-Nonylphenol-SURR	624841	CCV	50600	50000	ug/L	101	50.0 - 130	126419405
4-Nonylphenol-SURR	1122298	Blank	21600	25000	ug/L	86.4	50.0 - 130	126419398
4-Nonylphenol-SURR	1122298	LCS	22400	25000	ug/L	89.6	50.0 - 130	126419399
4-Nonylphenol-SURR	1122298	LCS Dup	23800	25000	ug/L	95.2	50.0 - 130	126419400
4-Nonylphenol-SURR	2302895	Unknown	24.8	28.0	ug/L	88.6	50.0 - 130	126419403

Analytical Set

1124511

EPA 625.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1121954	ND	1.03	1.03	ug/L	126461237
1,2,4-Trichlorobenzene	1121954	ND	0.941	1.00	ug/L	126461237
1,2-Dichlorobenzene	1121954	ND	1.04	5.00	ug/L	126461237
1,2-DPH (as azobenzene)	1121954	ND	0.238	1.00	ug/L	126461237
1,3-Dichlorobenzene	1121954	ND	0.954	5.00	ug/L	126461237
1,4-Dichlorobenzene	1121954	ND	1.01	5.00	ug/L	126461237
2,4,5-Trichlorophenol	1121954	ND	0.961	5.00	ug/L	126461237

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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
2,4,6-Trichlorophenol	1121954	ND	1.24	2.00	ug/L	126461237
2,4-Dichlorophenol	1121954	ND	0.222	1.00	ug/L	126461237
2,4-Dimethylphenol	1121954	ND	0.536	1.00	ug/L	126461237
2,4-Dinitrophenol	1121954	ND	1.34	2.00	ug/L	126461237
2,4-Dinitrotoluene	1121954	ND	1.35	2.00	ug/L	126461237
2,6-Dinitrotoluene	1121954	ND	1.29	2.00	ug/L	126461237
2-Chloronaphthalene	1121954	ND	0.150	1.00	ug/L	126461237
2-Chlorophenol	1121954	ND	0.275	1.00	ug/L	126461237
2-Methylphenol (o-Cresol)	1121954	ND	8.48	10.0	ug/L	126461237
2-Nitrophenol	1121954	ND	0.554	1.00	ug/L	126461237
3&4-Methylphenol (m&p-Cresol)	1121954	ND	7.78	8.00	ug/L	126461237
3,3'-Dichlorobenzidine	1121954	ND	1.39	2.00	ug/L	126461237
4,6-Dinitro-2-methylphenol	1121954	ND	1.15	2.00	ug/L	126461237
4-Bromophenyl phenyl ether	1121954	ND	0.772	1.00	ug/L	126461237
4-Chlorophenyl phenyl ethe	1121954	ND	0.202	1.00	ug/L	126461237
4-Nitrophenol	1121954	ND	0.789	1.00	ug/L	126461237
Acenaphthene	1121954	ND	0.177	1.00	ug/L	126461237
Acenaphthylene	1121954	ND	0.240	1.00	ug/L	126461237
Aniline	1121954	ND	2470	2470	ug/L	126461237
Anthracene	1121954	ND	0.241	1.00	ug/L	126461237
Benzidine	1121954	ND	1.40	1.50	ug/L	126461237
Benzo(a)anthracene	1121954	ND	0.225	1.00	ug/L	126461237
Benzo(a)pyrene	1121954	ND	0.900	1.00	ug/L	126461237
Benzo(b)fluoranthene	1121954	ND	0.547	1.00	ug/L	126461237
Benzo(ghi)perylene	1121954	ND	0.881	1.00	ug/L	126461237
Benzo(k)fluoranthene	1121954	ND	0.252	1.00	ug/L	126461237
Benzyl Butyl phthalate	1121954	0.370	0.204	7.50	ug/L	126461237
Bis(2-chloroethoxy)methane	1121954	ND	0.277	1.00	ug/L	126461237
Bis(2-chloroethyl)ether	1121954	ND	0.348	1.00	ug/L	126461237
Bis(2-chloroisopropyl)ether	1121954	ND	0.738	1.00	ug/L	126461237
Bis(2-ethylhexyl)phthalate	1121954	ND	1.12	7.50	ug/L	126461237
Chrysene (Benzo(a)phenanthrene)	1121954	ND	0.289	1.00	ug/L	126461237
Dibenz(a,h)anthracene	1121954	ND	0.689	1.00	ug/L	126461237
Diethyl phthalate	1121954	ND	0.253	5.70	ug/L	126461237
Dimethyl phthalate	1121954	ND	0.540	4.80	ug/L	126461237
Di-n-butylphthalate	1121954	ND	0.978	7.50	ug/L	126461237
Di-n-octylphthalate	1121954	ND	1.92	2.00	ug/L	126461237
Fluoranthene(Benzo(j,k)fluorene)	1121954	ND	0.318	1.00	ug/L	126461237
Fluorene	1121954	ND	0.275	1.00	ug/L	126461237
Hexachlorobenzene	1121954	ND	0.871	1.00	ug/L	126461237
Hexachlorobutadiene	1121954	ND	1.03	1.03	ug/L	126461237
Hexachlorocyclopentadiene	1121954	ND	0.536	1.00	ug/L	126461237
Hexachloroethane	1121954	ND	1.05	2.00	ug/L	126461237
Indeno(1,2,3-cd)pyrene	1121954	ND	0.596	1.00	ug/L	126461237
Isophorone	1121954	ND	0.429	1.00	ug/L	126461237

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Naphthalene	1121954	ND	0.225	1.00	ug/L	126461237
Nitrobenzene	1121954	ND	0.271	1.00	ug/L	126461237
n-Nitrosodiethylamine	1121954	ND	0.747	1.00	ug/L	126461237
N-Nitrosodimethylamine	1121954	ND	0.542	1.00	ug/L	126461237
n-Nitroso-di-n-butylamine	1121954	ND	0.210	1.00	ug/L	126461237
N-Nitrosodi-n-propylamine	1121954	ND	0.425	1.00	ug/L	126461237
N-Nitrosodiphenylamine (as DPA)	1121954	ND	0.404	1.00	ug/L	126461237
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	ND	0.588	1.00	ug/L	126461237
Pentachlorobenzene	1121954	ND	0.977	1.00	ug/L	126461237
Pentachlorophenol	1121954	ND	0.960	5.00	ug/L	126461237
Phenanthrene	1121954	ND	0.269	1.00	ug/L	126461237
Phenol	1121954	ND	0.332	1.00	ug/L	126461237
Pyrene	1121954	ND	0.291	1.00	ug/L	126461237
Pyridine	1121954	ND	1.35	1.35	ug/L	126461237

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
1,2,4,5-Tetrachlorobenzene	48200	50000	ug/L	96.4	60.0 - 140	126461236
1,2,4-Trichlorobenzene	48600	50000	ug/L	97.2	61.0 - 130	126461236
1,2-Dichlorobenzene	47800	50000	ug/L	95.6	60.0 - 140	126461236
1,2-DPH (as azobenzene)	53400	50000	ug/L	107	60.0 - 140	126461236
1,3-Dichlorobenzene	43700	50000	ug/L	87.4	60.0 - 140	126461236
1,4-Dichlorobenzene	42500	50000	ug/L	85.0	60.0 - 140	126461236
2,4,5-Trichlorophenol	49400	50000	ug/L	98.8	69.0 - 130	126461236
2,4,6-Trichlorophenol	46000	50000	ug/L	92.0	69.0 - 130	126461236
2,4-Dichlorophenol	44700	50000	ug/L	89.4	64.0 - 130	126461236
2,4-Dimethylphenol	42200	50000	ug/L	84.4	58.0 - 130	126461236
2,4-Dinitrophenol	45400	50000	ug/L	90.8	39.0 - 173	126461236
2,4-Dinitrotoluene	50900	50000	ug/L	102	53.0 - 130	126461236
2,6-Dinitrotoluene	52000	50000	ug/L	104	68.0 - 137	126461236
2-Chloronaphthalene	41500	50000	ug/L	83.0	70.0 - 130	126461236
2-Chlorophenol	43300	50000	ug/L	86.6	55.0 - 130	126461236
2-Methylphenol (o-Cresol)	37700	50000	ug/L	75.4	60.0 - 140	126461236
2-Nitrophenol	46200	50000	ug/L	92.4	61.0 - 163	126461236
3&4-Methylphenol (m&p-Cresol)	38700	50000	ug/L	77.4	60.0 - 140	126461236
3,3'-Dichlorobenzidine	60900	50000	ug/L	122	18.0 - 213	126461236
4,6-Dinitro-2-methylphenol	47400	50000	ug/L	94.8	56.0 - 130	126461236
4-Bromophenyl phenyl ether	49400	50000	ug/L	98.8	70.0 - 130	126461236
4-Chlorophenyl phenyl ethe	46500	50000	ug/L	93.0	57.0 - 145	126461236
4-Nitrophenol	46000	50000	ug/L	92.0	35.0 - 135	126461236
Acenaphthene	50100	50000	ug/L	100	70.0 - 130	126461236
Acenaphthylene	50000	50000	ug/L	100	60.0 - 130	126461236
Aniline	39000	50000	ug/L	78.0	60.0 - 140	126461236
Anthracene	50700	50000	ug/L	101	58.0 - 130	126461236
Benzidine	27600	50000	ug/L	55.2	20.0 - 180	126461236

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Benzo(a)anthracene	50000	50000	ug/L	100	42.0 - 133	126461236
Benzo(a)pyrene	52000	50000	ug/L	104	32.0 - 148	126461236
Benzo(b)fluoranthene	47300	50000	ug/L	94.6	42.0 - 140	126461236
Benzo(ghi)perylene	50600	50000	ug/L	101	13.0 - 195	126461236
Benzo(k)fluoranthene	52400	50000	ug/L	105	25.0 - 146	126461236
Benzyl Butyl phthalate	51600	50000	ug/L	103	43.0 - 140	126461236
Bis(2-chloroethoxy)methane	49600	50000	ug/L	99.2	52.0 - 164	126461236
Bis(2-chloroethyl)ether	44400	50000	ug/L	88.8	52.0 - 130	126461236
Bis(2-chloroisopropyl)ether	47500	50000	ug/L	95.0	63.0 - 139	126461236
Bis(2-ethylhexyl)phthalate	44600	50000	ug/L	89.2	43.0 - 137	126461236
Chrysene (Benzo(a)phenanthrene)	49100	50000	ug/L	98.2	44.0 - 140	126461236
Dibenz(a,h)anthracene	55000	50000	ug/L	110	13.0 - 200	126461236
Diethyl phthalate	50000	50000	ug/L	100	47.0 - 130	126461236
Dimethyl phthalate	51200	50000	ug/L	102	50.0 - 130	126461236
Di-n-butylphthalate	48900	50000	ug/L	97.8	52.0 - 130	126461236
Di-n-octylphthalate	48600	50000	ug/L	97.2	21.0 - 132	126461236
Fluoranthene(Benzo(j,k)fluorene)	49000	50000	ug/L	98.0	47.0 - 130	126461236
Fluorene	49100	50000	ug/L	98.2	70.0 - 130	126461236
Hexachlorobenzene	50400	50000	ug/L	101	38.0 - 142	126461236
Hexachlorobutadiene	45900	50000	ug/L	91.8	68.0 - 130	126461236
Hexachlorocyclopentadiene	43600	50000	ug/L	87.2	60.0 - 140	126461236
Hexachloroethane	45100	50000	ug/L	90.2	55.0 - 130	126461236
Indeno(1,2,3-cd)pyrene	46000	50000	ug/L	92.0	13.0 - 151	126461236
Isophorone	56000	50000	ug/L	112	52.0 - 180	126461236
Naphthalene	47000	50000	ug/L	94.0	70.0 - 130	126461236
Nitrobenzene	40000	50000	ug/L	80.0	54.0 - 158	126461236
n-Nitrosodiethylamine	77500	50000	ug/L	155	60.0 - 140	* 126461236
N-Nitrosodimethylamine	42400	50000	ug/L	84.8	60.0 - 140	126461236
n-Nitroso-di-n-butylamine	46600	50000	ug/L	93.2	60.0 - 140	126461236
N-Nitrosodi-n-propylamine	47900	50000	ug/L	95.8	59.0 - 170	126461236
N-Nitrosodiphenylamine (as DPA)	43500	50000	ug/L	87.0	60.0 - 140	126461236
p-Chloro-m-Cresol (4-Chloro-3-me	43800	50000	ug/L	87.6	68.0 - 130	126461236
Pentachlorobenzene	45500	50000	ug/L	91.0	60.0 - 140	126461236
Pentachlorophenol	46600	50000	ug/L	93.2	42.0 - 152	126461236
Phenanthrene	45600	50000	ug/L	91.2	67.0 - 130	126461236
Phenol	38600	50000	ug/L	77.2	48.0 - 130	126461236
Pyrene	47400	50000	ug/L	94.8	70.0 - 130	126461236
Pyridine	42800	50000	ug/L	85.6	60.0 - 140	126461236

DFTPP

<u>Parameter</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>	
DFTPP Mass 127	625102	198	57901	52.8	40.0 - 60.0	126461234
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126461234
DFTPP Mass 198	625102	198	109643	100.0	100 - 100	126461234
DFTPP Mass 199	625102	198	7184	6.6	5.00 - 9.00	126461234

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 275	625102	198	32486	29.6	10.0 - 30.0	126461234
DFTPP Mass 365	625102	198	7319	6.7	1.00 - 100	126461234
DFTPP Mass 441	625102	443	3494	16.8	0 - 100	126461234
DFTPP Mass 442	625102	198	107965	98.5	40.0 - 100	126461234
DFTPP Mass 443	625102	442	20743	19.2	17.0 - 23.0	126461234
DFTPP Mass 51	625102	198	35046	32.0	30.0 - 60.0	126461234
DFTPP Mass 68	625102	69.0	0	0.0	0 - 2.00	126461234
DFTPP Mass 69	625102	198	37536	34.2	0 - 100	126461234
DFTPP Mass 70	625102	69.0	0	0.0	0 - 2.00	126461234

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1121954	10.7	10.2	12.5	27.5 - 85.5	85.6 *	81.6	ug/L	4.78	50.0
1,2,4-Trichlorobenzene	1121954	11.3	9.13	12.5	44.0 - 142	90.4	73.0	ug/L	21.3	50.0
1,2-Dichlorobenzene	1121954	10.1	9.32	12.5	23.0 - 81.8	80.8	74.6	ug/L	7.98	50.0
1,2-DPH (as azobenzene)	1121954	11.9	10.2	12.5	12.6 - 110	95.2	81.6	ug/L	15.4	50.0
1,3-Dichlorobenzene	1121954	10.6	9.26	12.5	21.1 - 80.5	84.8 *	74.1	ug/L	13.5	50.0
1,4-Dichlorobenzene	1121954	10.4	8.53	12.5	21.4 - 76.9	83.2 *	68.2	ug/L	19.8	50.0
2,4,5-Trichlorophenol	1121954	12.7	11.5	12.5	51.3 - 109	102	92.0	ug/L	10.3	50.0
2,4,6-Trichlorophenol	1121954	12.7	11.6	12.5	37.0 - 144	102	92.8	ug/L	9.45	58.0
2,4-Dichlorophenol	1121954	10.8	9.67	12.5	39.0 - 135	86.4	77.4	ug/L	11.0	50.0
2,4-Dimethylphenol	1121954	1.29	1.02	12.5	23.0 - 120	10.3 *	8.16 *	ug/L	23.2	68.0
2,4-Dinitrophenol	1121954	11.1	13.4	12.5	0.100 - 191	88.8	107	ug/L	18.6	132
2,4-Dinitrotoluene	1121954	10.7	12.6	12.5	39.0 - 139	85.6	101	ug/L	16.5	42.0
2,6-Dinitrotoluene	1121954	10.8	12.4	12.5	50.0 - 158	86.4	99.2	ug/L	13.8	48.0
2-Chloronaphthalene	1121954	12.3	9.87	12.5	60.0 - 120	98.4	79.0	ug/L	21.9	24.0
2-Chlorophenol	1121954	11.0	10.1	12.5	23.0 - 134	88.0	80.8	ug/L	8.53	61.0
2-Methylphenol (o-Cresol)	1121954	7.81	7.89	12.5	38.9 - 76.1	62.5	63.1	ug/L	0.955	50.0
2-Nitrophenol	1121954	12.2	10.2	12.5	29.0 - 182	97.6	81.6	ug/L	17.9	55.0
3&4-Methylphenol (m&p-Cresol)	1121954	6.93	6.20	12.5	33.0 - 70.4	55.4	49.6	ug/L	11.0	50.0
3,3'-Dichlorobenzidine	1121954	9.98	8.09	12.5	0.100 - 262	79.8	64.7	ug/L	20.9	108
4,6-Dinitro-2-methylphenol	1121954	10.7	10.6	12.5	0.100 - 181	85.6	84.8	ug/L	0.939	203
4-Bromophenyl phenyl ether	1121954	12.6	11.3	12.5	53.0 - 127	101	90.4	ug/L	11.1	43.0
4-Chlorophenyl phenyl ether	1121954	10.8	11.4	12.5	25.0 - 158	86.4	91.2	ug/L	5.41	61.0
4-Nitrophenol	1121954	3.82	5.60	12.5	0.100 - 132	30.6	44.8	ug/L	37.7	131
Acenaphthene	1121954	12.1	12.3	12.5	47.0 - 145	96.8	98.4	ug/L	1.64	48.0
Acenaphthylene	1121954	11.6	10.7	12.5	33.0 - 145	92.8	85.6	ug/L	8.07	74.0
Aniline	1121954	7890	7210	12500	70.0 - 130	63.1 *	57.7 *	ug/L	8.94	50.0
Anthracene	1121954	12.4	10.5	12.5	27.0 - 133	99.2	84.0	ug/L	16.6	66.0
Benzo(a)anthracene	1121954	11.1	10.5	12.5	33.0 - 143	88.8	84.0	ug/L	5.56	53.0
Benzo(a)pyrene	1121954	11.4	10.9	12.5	17.0 - 163	91.2	87.2	ug/L	4.48	72.0
Benzo(b)fluoranthene	1121954	10.3	10.4	12.5	24.0 - 159	82.4	83.2	ug/L	0.966	71.0
Benzo(ghi)perylene	1121954	12.3	11.1	12.5	0.100 - 219	98.4	88.8	ug/L	10.3	97.0
Benzo(k)fluoranthene	1121954	12.4	12.2	12.5	11.0 - 162	99.2	97.6	ug/L	1.63	63.0
Benzyl Butyl phthalate	1121954	11.8	10.8	12.5	0.100 - 152	94.4	86.4	ug/L	8.85	60.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bis(2-chloroethoxy)methane	1121954	12.5	10.6	12.5	33.0 - 184	100	84.8	ug/L	16.5	54.0
Bis(2-chloroethyl)ether	1121954	11.9	10.2	12.5	12.0 - 158	95.2	81.6	ug/L	15.4	108
Bis(2-chloroisopropyl)ether	1121954	11.9	12.6	12.5	36.0 - 166	95.2	101	ug/L	5.91	76.0
Bis(2-ethylhexyl)phthalate	1121954	12.5	12.6	12.5	8.00 - 158	100	101	ug/L	0.995	82.0
Chrysene (Benzo(a)phenanthrene)	1121954	11.5	9.88	12.5	17.0 - 168	92.0	79.0	ug/L	15.2	87.0
Dibenz(a,h)anthracene	1121954	12.0	10.7	12.5	0.100 - 227	96.0	85.6	ug/L	11.5	126
Diethyl phthalate	1121954	12.2	12.1	12.5	0.100 - 120	97.6	96.8	ug/L	0.823	100
Dimethyl phthalate	1121954	11.4	11.8	12.5	0.100 - 120	91.2	94.4	ug/L	3.45	183
Di-n-butylphthalate	1121954	13.1	11.0	12.5	1.00 - 120	105	88.0	ug/L	17.6	47.0
Di-n-octylphthalate	1121954	11.2	11.2	12.5	4.00 - 146	89.6	89.6	ug/L	0	69.0
Fluoranthene(Benzo(j,k)fluorene)	1121954	12.9	12.4	12.5	26.0 - 137	103	99.2	ug/L	3.76	66.0
Fluorene	1121954	11.5	12.3	12.5	59.0 - 121	92.0	98.4	ug/L	6.72	38.0
Hexachlorobenzene	1121954	12.2	10.9	12.5	0.100 - 152	97.6	87.2	ug/L	11.3	55.0
Hexachlorobutadiene	1121954	10.6	7.47	12.5	24.0 - 120	84.8	59.8	ug/L	34.6	62.0
Hexachlorocyclopentadiene	1121954	7.27	7.00	12.5	3.97 - 68.7	58.2	56.0	ug/L	3.85	50.0
Hexachloroethane	1121954	9.64	7.78	12.5	40.0 - 120	77.1	62.2	ug/L	21.4	52.0
Indeno(1,2,3-cd)pyrene	1121954	12.2	10.6	12.5	0.100 - 171	97.6	84.8	ug/L	14.0	99.0
Isophorone	1121954	12.0	11.1	12.5	21.0 - 196	96.0	88.8	ug/L	7.79	93.0
Naphthalene	1121954	10.6	9.59	12.5	21.0 - 133	84.8	76.7	ug/L	10.0	65.0
Nitrobenzene	1121954	10.9	8.82	12.5	35.0 - 180	87.2	70.6	ug/L	21.0	62.0
n-Nitrosodiethylamine	1121954	23.7	20.1	12.5	18.0 - 100	190 *	161 *	ug/L	16.5	50.0
N-Nitrosodimethylamine	1121954	7.94	7.85	12.5	30.2 - 74.9	63.5	62.8	ug/L	1.11	50.0
n-Nitroso-di-n-butylamine	1121954	11.1	12.2	12.5	48.4 - 98.5	88.8	97.6	ug/L	9.44	50.0
N-Nitrosodi-n-propylamine	1121954	12.4	10.7	12.5	0.100 - 230	99.2	85.6	ug/L	14.7	87.0
N-Nitrosodiphenylamine (as DPA)	1121954	10.8	9.96	12.5	49.3 - 94.2	86.4	79.7	ug/L	8.07	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	9.94	11.8	12.5	22.0 - 147	79.5	94.4	ug/L	17.1	70.0
Pentachlorobenzene	1121954	9.99	10.6	12.5	39.3 - 93.7	79.9	84.8	ug/L	5.95	50.0
Pentachlorophenol	1121954	11.4	11.9	12.5	14.0 - 176	91.2	95.2	ug/L	4.29	86.0
Phenanthrene	1121954	12.0	11.4	12.5	54.0 - 120	96.0	91.2	ug/L	5.13	39.0
Phenol	1121954	5.05	4.83	12.5	5.00 - 120	40.4	38.6	ug/L	4.56	64.0
Pyrene	1121954	10.5	10.5	12.5	52.0 - 120	84.0	84.0	ug/L	0	49.0
Pyridine	1121954	6.50	5.82	12.5	11.2 - 50.6	52.0 *	46.6	ug/L	11.0	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126461236
2-Fluorophenol-SURR	625306	CCV	39200	100000	ug/L	39.2	10.0 - 150	126461236
4-Terphenyl-d14-SURR	625306	CCV	40600	50000	ug/L	81.2	30.0 - 150	126461236
Nitrobenzene-d5-SURR	625306	CCV	43500	50000	ug/L	87.0	30.0 - 150	126461236
Phenol-d6-SURR	625306	CCV	44100	100000	ug/L	44.1	10.0 - 150	126461236
2,4,6-Tribromophenol	1121954	Blank	66.8	100	ug/L	66.8	10.0 - 150	126461237
2,4,6-Tribromophenol	1121954	LCS	61.8	100	ug/L	61.8	10.0 - 150	126461238
2,4,6-Tribromophenol	1121954	LCS Dup	64.6	100	ug/L	64.6	10.0 - 150	126461239
2-Fluorophenol-SURR	1121954	Blank	31400	100000	ug/L	31.4	10.0 - 150	126461237
2-Fluorophenol-SURR	1121954	LCS	36400	100000	ug/L	36.4	10.0 - 150	126461238

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2-Fluorophenol-SURR	1121954	LCS Dup	33800	100000	ug/L	33.8	10.0 - 150	126461239
4-Terphenyl-d14-SURR	1121954	Blank	35400	50000	ug/L	70.8	30.0 - 150	126461237
4-Terphenyl-d14-SURR	1121954	LCS	19500	50000	ug/L	39.0	30.0 - 150	126461238
4-Terphenyl-d14-SURR	1121954	LCS Dup	19500	50000	ug/L	39.0	30.0 - 150	126461239
Nitrobenzene-d5-SURR	1121954	Blank	43700	50000	ug/L	87.4	30.0 - 150	126461237
Nitrobenzene-d5-SURR	1121954	LCS	20900	50000	ug/L	41.8	30.0 - 150	126461238
Nitrobenzene-d5-SURR	1121954	LCS Dup	17300	50000	ug/L	34.6	30.0 - 150	126461239
Phenol-d6-SURR	1121954	Blank	27800	100000	ug/L	27.8	10.0 - 150	126461237
Phenol-d6-SURR	1121954	LCS	25900	100000	ug/L	25.9	10.0 - 150	126461238
Phenol-d6-SURR	1121954	LCS Dup	24500	100000	ug/L	24.5	10.0 - 150	126461239
2,4,6-Tribromophenol	2302895	Unknown	76.1	98.8	ug/L	77.0	10.0 - 150	126461243
2-Fluorophenol-SURR	2302895	Unknown	41.1	98.8	ug/L	41.6	10.0 - 150	126461243
4-Terphenyl-d14-SURR	2302895	Unknown	35.3	49.4	ug/L	71.5	30.0 - 150	126461243
Nitrobenzene-d5-SURR	2302895	Unknown	36.1	49.4	ug/L	73.1	30.0 - 150	126461243
Phenol-d6-SURR	2302895	Unknown	28.9	98.8	ug/L	29.3	10.0 - 150	126461243

Analytical Set

1121775

SM 5220 D-2011

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chemical Oxygen Demand	422	400	mg/L	106	90.0 - 110	126389115

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Chemical Oxygen Demand	2302625	ND	ND	mg/L		20.0
Chemical Oxygen Demand	2303054	32.7	30.5	mg/L	6.96	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Chemical Oxygen Demand	1121775	203	200	mg/L	102	90.0 - 110	126389116

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Chemical Oxygen Demand	2302625	238	ND	220	mg/L	108	80.0 - 120	126389119
Chemical Oxygen Demand	2303054	253	30.5	220	mg/L	101	80.0 - 120	126389128

Analytical Set

1121996

SM 4500-P E-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.0662	0.060	mg/L	110	70.0 - 130	126393751

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Phosphorus (as P), total	1121996	ND	0.00311	0.00311	mg/L	126393749

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Phosphorus (as P), total	0.312	0.300	mg/L	104	90.0 - 110	126393752
Phosphorus (as P), total	0.306	0.300	mg/L	102	90.0 - 110	126393767
Phosphorus (as P), total	0.309	0.300	mg/L	103	90.0 - 110	126394129

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	1121996	0.307	0.299	0.300	80.0 - 120	102	99.7	mg/L	2.64	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	2302930	0.265	0.257	0.120	0.150	70.0 - 130	96.7	91.3	mg/L	5.67	20.0
Phosphorus (as P), total	2302931	0.345	0.331	0.191	0.150	70.0 - 130	103	93.3	mg/L	9.52	20.0

Analytical Set **1122797**

SM 2320 B-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1122797	ND	1.00	1.00	mg/L	126418426

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	24.5	25.0	mg/L	98.0	90.0 - 110	126418425
Total Alkalinity (as CaCO3)	25.4	25.0	mg/L	102	90.0 - 110	126418438

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2302842	785	789	mg/L	0.508	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126418424

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2302842	819	789	25.0	mg/L	120	70.0 - 130	126418429

Analytical Set **1123697**

SM 2130 B-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0

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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r_1-r_2) / \text{mean}(r_1,r_2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



1105141 CoC Print Group 001 of 001

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24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

0.00
As ON SHIP



CHAIN OF CUSTODY

SPACE X
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
188

Printed 02/28/2024 Page 1 of 2
Lab Number 2302893
Mandatory
PO Number 2605353
Phone 956/543-6688

Effluent

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zachary Smith
Sampler Affiliation: Space X
Sampler Signature: Zachary Smith

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

0 On Site Testing

pH Client Provided SM 4500-H+ B-2011

pH Client Provided

Collected By ZS Date 5/29/24 Time 0830 Analyzed By ZS Date 5/29/24 Time 0830

Results 7.51 Units SU Temp. 28.1 C Duplicate 7.51 Units SU Temp. 28.1 C

1 Polyethylene 1/2 gal (White)

NELAC Short Hold BODc BOD Carbonaceous SM 5210 B-2016 (TCMP Inhibitor) (2.00 days)



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188

Mandatory .
 Phone 956/543-6688

1 Polyethylene Quart

NELAC Short Hold TURB Turbidity SM 2130 B-2011 (2.00 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: Zachary Smith Affiliation: SPACEX Signature: [Signature]	5/29 0932	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]
5/29/24 9:32	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]	5/29/24 9:32	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]
5/29/24 17:30	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]	5/29/24 17:30	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx
5/30/24 1110	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx	5-30-24 1110	Printed Name: Andy Owens - SPL, Inc. Affiliation: [Affiliation] Signature: [Signature]

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No IF Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAC, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Comments



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1 Rocket Rd
Brownsville, TX 78521

SPAC-R
178

Lab Number 2302894
Mandatory 2605353
PO Number 2605353
Phone 956/543-6688

INFLUENT

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zochacz, SM
Sampler Affiliation: SPACE X
Sampler Signature: [Signature]

Samples Radioactive? Samples Contain Dioxin? Samples Biological Hazard?

Polyethylene 1/2 gal (White)

NELAC Short Hold BOD Biochemical Oxygen Demand (BOD5) SM 5210 B-2016 CAS:1026-3 (2.04 days)

H2SO4 to pH < 2 250 ml Polyethylene

NELAC NH4N Ammonia Nitrogen EPA 350.1 2 (28.0 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: <u>Zochacz, SM</u> Signature: <u>[Signature]</u> Affiliation: <u>SPACE X</u>	06/29 0903	Printed Name: <u>Leo Munoz</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>
5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>	5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>
5/29/24 12:30	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>	5/29/24 1713	Printed Name: <u>[Signature]</u> Signature: <u>FedEx</u> Affiliation: <u>[Affiliation]</u>
5/30/24 1110	Printed Name: <u>[Signature]</u> Signature: <u>FedEx</u> Affiliation: <u>[Affiliation]</u>	5/30/24 1110	Printed Name: <u>Andy Owens - SPL, Inc.</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>



RGV Region: 2401 Village Dr. Suite C Brownsville TX 78521

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**SPAC-R
194**

Lab Number 2302895
PO Number _____ Mandatory
Phone 956/543-6688

Waste Water

Retention Pond

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5.28.24 Time: 3:50 PM

Sampler Printed Name: CAROLYN WOOD

Sampler Affiliation: SPACE X

Sampler Signature: Carolyn A. Wood

Sample Radioactive?

Sample Contains Dioxin?

Sample Biological Hazard?

On Site Testing

NELAC C20 C12 Res., Total(Onsite)Spec Mid SM 4500-CI G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

*by client
Total C12
0.2 mg/L*

~~C12~~ Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

NELAC Short Hold Cr6 Hex Cr. Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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Hex Cr, Field Preservation

Collected By CW Date 5-28-24 Time 3:57p Analyzed By Jmz Date 5/28/24 Time 18:40

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

NELAC Short Hold pH pH (Onsite) SM 4500-H B-2011 (0.0104 days)

pH (Onsite)

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

*by client
pH 6.97*

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

S2C2 Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QC R1 _____ QC R2 _____

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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194

Temperature (conts)

Collected By CW Date 5.25.24 Time 3:52p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Duplicate _____ Units _____

2 Amber Glass Qt w/Teflon lined lid			
NELAC	ID25	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	IPCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)
2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid			
NELAC	Short Hold	SAAB Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
2 H2SO4 to pH <2 GIQt w/Tef-lined lid			
	NYPB	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
1 H2SO4 to pH <2 GIQt w/Tef-lined lid			
NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
1 Polyethylene 1/2 gal (White)			
NELAC	Short Hold	BOD Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC	Short Hold	BODc BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC		TSS Total Suspended Solids	SM 2540 D-2015 (7.00 days)
0 Z - No bottle required			
	CKLM	Check Limits	
NELAC	Short Hold	Cr+3 Trivalent Chromium	Calculation CAS:16065-R3-1 (1.00 days)
1 HNO3 to pH <2 Polyethylene 500 mL for Metals			
NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



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NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold **ID2V** Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	ODD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH4N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TFWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mL w/Teflon lined lid

NELAC **TOCL** Total Organic Carbon SM 5310 C-2014 (28.0 days)



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2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN-A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CNCL	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	ICL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	IFL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	INL	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	ISL	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AKT	Total Alkalinity (as CaCO3)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
5-28-24	6:20 pm	Carolyn Wood	SPACE	[Signature]	SPL
5/29/24	17:12	[Signature]	SPL	FedEx	
		[Signature]	FedEx		



1
2
3
4

1105141 CoC Print Group 001 of 001

ORIGIN ID: HRLA
ANA LAB / REV
2401 VILLAGE DR ST
BROWNSVILLE, TX 77801
UNITED STATES US

SHIP DATE: 28MAY24
ACTWT: 70.05 LB
CAD: 6894257/SSFE2500
DIMS: 24x14x13 IN

BILL THIRD PARTY

TO SPL
LOGIN
2600 DUDLE RD
KILGORE TX 75662
(565) 565-5665

SHIP DATE: 28MAY24
ACTWT: 70.05 LB
CAD: 6894257/SSFE2500
DIMS: 24x14x13 IN

BILL THIRD PARTY

TO SPL
LOGIN
2600 DUDLE RD
KILGORE TX 75662
(565) 565-5665

3 of 3

MPS# 0681 2752 6939 0395
Matr# 8171 8103 060

THU - 30 MAY 10:30A
PRIORITY OVERNIGHT
AHS 75662
SHV

XS GOGA

Date: 5/30 Time: 11:0 Tech: ANU
Temp: 1.3 1.4 c

Therm#: 6443 Corr Fact: 0.1 C

FedEx Express

Part # 150297-235 8808 285 12/24

Project
1106094

SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Printed 06/26/2024
16:57

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1106094_r10_05_ProjectQC	SPL Kilgore Project P:1106094 C:SPAC Project Quality Control Groups	31
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SAMPLE CROSS REFERENCE

Project
1106094

Printed 6/26/2024 Page 1 of 9

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	32	1123138	06/10/2024	1123853	06/13/2024
EPA 300.0 2.1	01	1123092	06/07/2024	1123092	06/07/2024
EPA 300.0 2.1	01	1124447	06/18/2024	1124447	06/18/2024
EPA 625.1	33	1123370	06/11/2024	1125008	06/18/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE CROSS REFERENCE

Project
1106094

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SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	19	1123033	06/07/2024	1123033	06/07/2024
EPA 624.1	16	1123030	06/07/2024	1123030	06/07/2024
ASTM D7065-11	34	1124341	06/17/2024	1124948	06/19/2024
EPA 200.8 5.4	32	1123138	06/10/2024	1123222	06/10/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	31	1123060	06/10/2024	1123439	06/11/2024
EPA 200.7 4.4	31	1123060	06/10/2024	1123677	06/12/2024
EPA 245.1 3	30	1123013	06/10/2024	1123073	06/10/2024
EPA 200.8 5.4	31	1123060	06/10/2024	1124795	06/19/2024

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SPACEX
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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2320 B-2011	01	1123173	06/10/2024	1123173	06/10/2024
SM 5210 B-2016	01	1122943	06/13/2024	1122943	06/13/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1122944	06/13/2024	1122944	06/13/2024
SM 4500-CN ⁻ G-2016			06/19/2024		06/19/2024

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- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016	21	1122879	06/07/2024	1123107	06/10/2024
SM 4500-CN ⁻ E-2016	20	1122859	06/07/2024	1123105	06/10/2024
SM 5220 D-2011	14	1123591	06/12/2024	1123591	06/12/2024
SM 4500-CI G-2011		1122809	06/06/2024	1122809	06/06/2024

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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/19/2024		06/19/2024
SM 3500-Cr B-2011	12	1122852	06/07/2024	1122852	06/07/2024
SM 3500-Cr B-2011		1122789	06/06/2024	1122789	06/06/2024
SM 4500-O G-2016		1122811	06/06/2024	1122811	06/06/2024

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SPACEX
 Rodolfo Longoria
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	29	1123008	06/10/2024	1124055	06/14/2024
EPA 351.2 minus EPA 350.1			06/19/2024		06/19/2024
SM 2540 C-2015	01	1123493	06/11/2024	1123493	06/11/2024
EPA 351.2 2	28	1122995	06/10/2024	1123329	06/11/2024

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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	09	1124581	06/18/2024	1124581	06/18/2024
SM 4500-P E-2011	13	1123135	06/10/2024	1123135	06/10/2024
SM 2540 D-2015	01	1123475	06/11/2024	1123475	06/11/2024
SM 2130 B-2011	02	1123697	06/11/2024	1123697	06/11/2024

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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2550 B - 2010		1123056	06/06/2024	1123056	06/06/2024
EPA 1664B	05	1123989	06/14/2024	1123989	06/14/2024
SM 4500-H+ B-2011		1122812	06/06/2024	1122812	06/06/2024

Email: Kilgore.ProjectManagement@spllabs.com

SPAC-R

SPACE X
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 Space Exploration Technologies
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RESULTS

Sample Results

2305623	WW - Retention Pond	Received:	06/07/2024
Non-Potable Water	Collected by: Client	SPACE X	PO:
	Taken: 06/06/2024	13:30:00	2305623-5
Prepared: 06/24/2024 15:50:00 Analyzed 06/24/2024 15:50:00 WJP			
Parameter	Results	Units	RL
Check Limits	Completed		
Prepared: 1122810 06/06/2024 13:30:00 Analyzed 1122810 06/06/2024 13:30:00 RDL			
Parameter	Results	Units	RL
Field Cl2 Check for CNa	NEG		
Prepared: 1122813 06/06/2024 13:30:00 Analyzed 1122813 06/06/2024 13:30:00 RDL			
Parameter	Results	Units	RL
Field Sulfide Check for CNa	NEG	mg/L	
ASTM D7065-11 Prepared: 1124341 06/17/2024 14:40:00 Analyzed 1124948 06/19/2024 19:32:00 DWL			
Parameter	Results	Units	RL
Nonylphenol	<34.8	ug/L	34.8
			SD
			25154-52-3
			34
Calculation Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL			
Parameter	Results	Units	RL
Trivalent Chromium	<0.003	mg/L	0.003
			16065-83-1
EPA 1664B Prepared: 1123989 06/14/2024 11:25:00 Analyzed 1123989 06/14/2024 11:25:00 RC1			
Parameter	Results	Units	RL
Oil and Grease (HEM)	<4.60	mg/L	4.60
			05
EPA 200.7 4.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI			
Parameter	Results	Units	RL
Calcium	72.7	mg/L	0.500
			7440-70-2
			31



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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 200.7 4.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Iron, Total	0.199	mg/L	0.025		7439-89-6	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123439 06/11/2024 15:17:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00112	mg/L	0.003	J	7440-36-0	31
NELAC Barium, Total	0.085	mg/L	0.005		7440-39-3	31
NELAC Lead, Total	<0.0005	mg/L	0.0005		7439-92-1	31
NELAC Manganese, Total	0.0163	mg/L	0.001		7439-96-5	31
NELAC Selenium, Total	<0.00294	mg/L	0.00294		7782-49-2	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1124795 06/19/2024 11:43:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Thallium, Total	0.000616	mg/L	0.0005		7440-28-0	31

EPA 200.8 5.4 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123222 06/10/2024 18:53:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.00615	mg/L	0.0000167		7429-90-5	32
NELAC Arsenic, Total	0.0000169	mg/L	0.00000976		7440-38-2	32
NELAC Beryllium, Total	<0.00000136	mg/L	0.00000136		7440-41-7	32
NELAC Cadmium, Total	<0.00000065	mg/L	0.00000065		7440-43-9	32
NELAC Chromium, Total	0.000282	mg/L	0.00000976		7440-47-3	32
NELAC Copper, Total	0.0000747	mg/L	0.0000151		7440-50-8	32
NELAC Nickel, Total	0.0000224	mg/L	0.0000109		7440-02-0	32
NELAC Silver, Total	<0.0000022	mg/L	0.0000022		7440-22-4	32
NELAC Zinc, Total	0.0043	mg/L	0.00000976		7440-66-6	32

EPA 245.1 3 Prepared: 1123013 06/10/2024 06:30:00 Analyzed 1123073 06/10/2024 11:34:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	0.139	ug/L	0.200	J	7439-97-6	30

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	197	mg/L	3.00			01
NELAC Fluoride	1.24	mg/L	1.00			01
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.226		14797-55-8	01

EPA 300.0 2.1 Prepared: 1124447 06/18/2024 03:37:00 Analyzed 1124447 06/18/2024 03:37:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Sulfate	281	mg/L	30.0			01

EPA 350.1 2 Prepared: 1123008 06/10/2024 08:49:19 Analyzed 1124055 06/14/2024 08:53:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Ammonia Nitrogen	0.211	mg/L	0.020			29

EPA 351.2 2 Prepared: 1122995 06/10/2024 08:02:43 Analyzed 1123329 06/11/2024 10:29:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Kjeldahl Nitrogen	0.372	mg/L	0.050		7727-37-9	28

EPA 351.2 minus EPA 350.1 Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrogen, Total Organic (as N)	0.161	mg/L	0.050			

EPA 608.3 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123853 06/13/2024 04:55:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<0.197	ug/L	0.197		12674-11-2	32
NELAC PCB-1221	<0.195	ug/L	0.195		11104-28-2	32
NELAC PCB-1232	<0.195	ug/L	0.195		11141-16-5	32
NELAC PCB-1242	<0.195	ug/L	0.195		53469-21-9	32
NELAC PCB-1248	<0.195	ug/L	0.195		12672-29-6	32
NELAC PCB-1254	<0.195	ug/L	0.195		11097-69-1	32
NELAC PCB-1260	<0.195	ug/L	0.195		11096-82-5	32
NELAC PCB-1262	<0.195	ug/L	0.195		37324-23-5	32
NELAC PCB-1268	<0.195	ug/L	0.195		11100-14-4	32



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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 624.1		Prepared: 1123030 06/07/2024 16:19:00		Analyzed 1123030 06/07/2024 16:19:00		MRI
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	16
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	16
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	16
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	16
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	16
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	16
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	16
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	16
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	16
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	16
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	16
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	16
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	16
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	16
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	16
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	16
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	16
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	16
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	16
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	16
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	16
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	16
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	16
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	16
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	16
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	16
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	16
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	16
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	16
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	16
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	16
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	16

EPA 624.1		Prepared: 1123030 06/19/2024 11:10:05		Calculated 1123030 06/19/2024 11:10:05		CAL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			16



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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client
 Taken: 06/06/2024

SPACE X
 13:30:00

PO: 2305623-5

EPA 624.1 Prepared: 1123033 06/07/2024 15:11:00 Analyzed 1123033 06/07/2024 15:11:00 MRI

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Acrolein	<4.00	ug/L	4.00	X	107-02-8	19
NELAC	Acrylonitrile	<1.00	ug/L	1.00		107-13-1	19

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	1,2,4,5-Tetrachlorobenzene	<1.10	ug/L	1.10		95-94-3	33
NELAC	1,2,4-Trichlorobenzene	<1.06	ug/L	1.06		120-82-1	33
NELAC	1,2-Dichlorobenzene	<5.32	ug/L	5.32		95-50-1	33
NELAC	1,2-DPH (as azobenzene)	<1.06	ug/L	1.06		122-66-7	33
NELAC	1,3-Dichlorobenzene	<5.32	ug/L	5.32		541-73-1	33
NELAC	1,4-Dichlorobenzene	<5.32	ug/L	5.32		106-46-7	33
NELAC	2,4,5-Trichlorophenol	<5.32	ug/L	5.32		95-95-4	33
NELAC	2,4,6-Trichlorophenol	<2.13	ug/L	2.13		88-06-2	33
NELAC	2,4-Dichlorophenol	<1.06	ug/L	1.06		120-83-2	33
NELAC	2,4-Dimethylphenol	<1.06	ug/L	1.06		105-67-9	33
NELAC	2,4-Dinitrophenol	<2.13	ug/L	2.13		51-28-5	33
NELAC	2,4-Dinitrotoluene	<2.13	ug/L	2.13		121-14-2	33
NELAC	2,6-Dinitrotoluene	<2.13	ug/L	2.13		606-20-2	33
NELAC	2-Chloronaphthalene	<1.06	ug/L	1.06		91-58-7	33
NELAC	2-Chlorophenol	<1.06	ug/L	1.06		95-57-8	33
NELAC	2-Methylphenol (o-Cresol)	<10.0	ug/L	10.0		95-48-7	33
NELAC	2-Nitrophenol	<1.06	ug/L	1.06		88-75-5	33
NELAC	3&4-Methylphenol (m&p-Cresol)	<8.52	ug/L	8.52		MEPH34	33
NELAC	3,3'-Dichlorobenzidine	<2.13	ug/L	2.13		91-94-1	33
NELAC	4,6-Dinitro-2-methylphenol	<2.13	ug/L	2.13		534-52-1	33
NELAC	4-Bromophenyl phenyl ether	<1.06	ug/L	1.06		101-55-3	33
NELAC	4-Chlorophenyl phenyl ethe	<1.06	ug/L	1.06		7005-72-3	33
NELAC	4-Nitrophenol	<1.06	ug/L	1.06		100-02-7	33
NELAC	Acenaphthene	<1.06	ug/L	1.06		83-32-9	33
NELAC	Acenaphthylene	<1.06	ug/L	1.06		208-96-8	33
z	Aniline	<2.63	ug/L	2.63	S	62-53-3	33
NELAC	Anthracene	<1.06	ug/L	1.06		120-12-7	33
NELAC	Benzdine	<1.60	ug/L	1.60	D	92-87-5	33
NELAC	Benzo(a)anthracene	<1.06	ug/L	1.06		56-55-3	33
NELAC	Benzo(a)pyrene	<1.06	ug/L	1.06		50-32-8	33



SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client
 Taken: 06/06/2024

SPACEX
 13:30:00

PO: 2305623-5

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Benzo(b)fluoranthene	<1.06	ug/L	1.06		205-99-2	33
NELAC Benzo(ghi)perylene	<1.06	ug/L	1.06		191-24-2	33
NELAC Benzo(k)fluoranthene	<1.06	ug/L	1.06		207-08-9	33
NELAC Benzyl Butyl phthalate	<7.99	ug/L	7.99		85-68-7	33
NELAC Bis(2-chloroethoxy)methane	<1.06	ug/L	1.06		111-91-1	33
NELAC Bis(2-chloroethyl)ether	<1.06	ug/L	1.06		111-44-4	33
NELAC Bis(2-chloroisopropyl)ether	<1.06	ug/L	1.06		108-60-1	33
NELAC Bis(2-ethylhexyl)phthalate	<7.99	ug/L	7.99		117-81-7	33
NELAC Chrysene (Benzo(a)phenanthrene)	<1.06	ug/L	1.06		218-01-9	33
NELAC Dibenz(a,h)anthracene	<1.06	ug/L	1.06		53-70-3	33
NELAC Diethyl phthalate	<6.07	ug/L	6.07		84-66-2	33
NELAC Dimethyl phthalate	<5.11	ug/L	5.11		131-11-3	33
NELAC Di-n-butylphthalate	<7.99	ug/L	7.99		84-74-2	33
NELAC Di-n-octylphthalate	<2.13	ug/L	2.13	X	117-84-0	33
NELAC Fluoranthene(Benzo(j,k)fluorene)	<1.06	ug/L	1.06		206-44-0	33
NELAC Fluorene	<1.06	ug/L	1.06		86-73-7	33
NELAC Hexachlorobenzene	<1.06	ug/L	1.06		118-74-1	33
NELAC Hexachlorobutadiene	<1.10	ug/L	1.10		87-68-3	33
NELAC Hexachlorocyclopentadiene	<1.06	ug/L	1.06		77-47-4	33
NELAC Hexachloroethane	<2.13	ug/L	2.13		67-72-1	33
NELAC Indeno(1,2,3-cd)pyrene	<1.06	ug/L	1.06		193-39-5	33
NELAC Isophorone	<1.06	ug/L	1.06		78-59-1	33
NELAC Naphthalene	<1.06	ug/L	1.06		91-20-3	33
NELAC Nitrobenzene	<1.06	ug/L	1.06		98-95-3	33
NELAC n-Nitrosodiethylamine	<1.06	ug/L	1.06		55-18-5	33
NELAC N-Nitrosodimethylamine	<1.06	ug/L	1.06		62-75-9	33
NELAC n-Nitroso-di-n-butylamine	<1.06	ug/L	1.06		924-16-3	33
NELAC N-Nitrosodi-n-propylamine	<1.06	ug/L	1.06		621-64-7	33
NELAC N-Nitrosodiphenylamine (as DPA)	<1.06	ug/L	1.06		86-30-6	33
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<1.06	ug/L	1.06		59-50-7	33
NELAC Pentachlorobenzene	<1.06	ug/L	1.06		608-93-5	33
NELAC Pentachlorophenol	<5.00	ug/L	5.00		87-86-5	33
NELAC Phenanthrene	<1.06	ug/L	1.06		85-01-8	33
NELAC Phenol	<1.06	ug/L	1.06		108-95-2	33
NELAC Pyrene	<1.06	ug/L	1.06		129-00-0	33
NELAC Pyridine	<1.44	ug/L	1.44	X	110-86-1	33



SPAC-R

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 1 Rocket Rd
 Brownsville, TX 78521

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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 625.1		Prepared: 1123370 06/11/2024 15:15:00		Calculated 1125008 06/21/2024 15:33:09		CAL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cresols Total	<8.52	ug/L	8.52		1319-77-3, etc.	33
SM 2130 B-2011		Prepared: 1123697 06/11/2024 15:25:00		Analyzed 1123697 06/11/2024 15:25:00		TRC
NELAC Turbidity	3.04	NTU	0.300	H		02
SM 2320 B-2011		Prepared: 1123173 06/10/2024 11:06:00		Analyzed 1123173 06/10/2024 11:06:00		KN1
NELAC Total Alkalinity (as CaCO3)	106	mg/L	1.00			01
SM 2540 C-2015		Prepared: 1123493 06/11/2024 08:00:00		Analyzed 1123493 06/11/2024 08:00:00		JMB
NELAC Total Dissolved Solids	800	mg/L	50.0			01
SM 2540 D-2015		Prepared: 1123475 06/11/2024 14:00:00		Analyzed 1123475 06/11/2024 14:00:00		ADR
NELAC Total Suspended Solids	7.10	mg/L	2.00			01
SM 2550 B - 2010		Prepared: 1123056 06/06/2024 13:30:00		Analyzed 1123056 06/06/2024 13:30:00		RDL
NELAC Temperature (onsite)	38	Degrees C	1			Bottle
SM 3500-Cr B-2011		Prepared: 1122789 06/06/2024 13:30:00		Analyzed 1122789 06/06/2024 13:30:00		RDL
NELAC Hex Cr, Field Preservation	Preserved	ug/L	3		18540-29-9	Bottle
SM 3500-Cr B-2011		Prepared: 1122852 06/07/2024 11:45:00		Analyzed 1122852 06/07/2024 11:45:00		ALB
Parameter	Results	Units	RL	Flags	CAS	Bottle



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 Taken: 06/06/2024 13:30:00

SM 3500-Cr B-2011 Prepared: 1122852 06/07/2024 11:45:00 Analyzed 1122852 06/07/2024 11:45:00 ALB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	25.9	ug/L	3.00		18540-29-9	12

SM 4500-Cl G-2011 Prepared: 1122809 06/06/2024 13:30:00 Analyzed 1122809 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cl2 Res.,Total(Onsite)Spec Mid	0.00	mg/L	0.05			

SM 4500-CN⁻E-2016 Prepared: 1122859 06/07/2024 13:58:40 Analyzed 1123105 06/10/2024 09:44:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	0.0034	mg/L	0.005	J		20

SM 4500-CN⁻G-2016 Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	0.00102	mg/L	0.005	J		

SM 4500-CN⁻G-2016 Prepared: 1122879 06/07/2024 15:00:00 Analyzed 1123107 06/10/2024 09:44:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			21

SM 4500-H+ B-2011 Prepared: 1122812 06/06/2024 13:30:00 Analyzed 1122812 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC pH (Onsite)	8.6	SU				

SM 4500-O G-2016 Prepared: 1122811 06/06/2024 13:30:00 Analyzed 1122811 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Dissolved Oxygen Onsite	7.1	mg/L	1.0			

SM 4500-P E-2011 Prepared: 1123135 06/10/2024 09:45:00 Analyzed 1123135 06/10/2024 09:45:00 LR3

Parameter	Results	Units	RL	Flags	CAS	Bottle
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 Taken: 06/06/2024 13:30:00

SM 4500-P E-2011 Prepared: 1123135 06/10/2024 09:45:00 Analyzed 1123135 06/10/2024 09:45:00 LR3

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.017	mg/L	0.030		7723-14-0	13

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/13/2024 14:30:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	3.56	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/13/2024 14:06:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	<2.00	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1123591 06/12/2024 14:00:00 Analyzed 1123591 06/12/2024 14:00:00 SRJ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			14

SM 5310 C-2014 Prepared: 1124581 06/18/2024 17:34:00 Analyzed 1124581 06/18/2024 17:34:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.61	mg/L	0.500			09

Sample Preparation

2305623 WW - Retention Pond

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06/06/2024

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Prepared: 12/31/1899 12:11:02 Calculated 12:11:02 CAL

Environmental Fee (per Project) Verified



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	ASTM D7065-11		Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124948	06/19/2024	19:32:00	DWL
z	Nonyl Phenol Expansion		Entered						34
	EPA 200.2 2.8		Prepared: 1123060	06/10/2024	07:00:00	Analyzed 1123060	06/10/2024	07:00:00	HLT
z	Liquid Metals Digestion		50/50		ml				08
	EPA 245.1 3		Prepared: 1123013	06/10/2024	06:30:00	Analyzed 1123013	06/10/2024	06:30:00	HLT
NELAC	Mercury Liquid Metals Digestion		50/25		ml				08
	EPA 350.2, Rev. 2.0		Prepared: 1123008	06/10/2024	08:49:19	Analyzed 1123008	06/10/2024	08:49:19	MEG
NELAC	Ammonia Distillation		6/6		ml				14
	EPA 351.2, Rev 2.0		Prepared: 1122995	06/10/2024	08:02:43	Analyzed 1122995	06/10/2024	08:02:43	MEG
NELAC	TKN Block Digestion		20/20		ml				14
	EPA 608.3		Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123138	06/10/2024	14:30:00	CRS
	PCB Liq-Liq Extr. W/Hex Exch.		10/1025		ml				03
	EPA 608.3		Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123853	06/13/2024	04:55:00	KAP
NELAC	Polychlorinated Biphenyls		Entered						32
	EPA 624.1		Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI



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EPA 624.1	Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI
Table D-1/D-2 Volatile Expansion	Entered						16
EPA 624.1	Prepared: 1123033	06/07/2024	15:11:00	Analyzed 1123033	06/07/2024	15:11:00	MRI
NELAC Acrolein/Acrylonitrile Exp.	Entered						19
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1123370	06/11/2024	15:15:00	CRS
Liquid-Liquid Extraction, BNA	1/939	ml					04
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1125008	06/18/2024	18:25:00	PMI
NELAC Table D-1/ D-2 Semivolatiles Exp	Entered						33
EPA 625.1	Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124341	06/17/2024	14:40:00	MCC
Nonylphenol Liq-Liq Extract	1/862	ml					07
SM 2540 C-2015	Prepared: 1123231	06/11/2024	08:00:00	Analyzed 1123231	06/11/2024	08:00:00	JMB
NELAC Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1123240	06/11/2024	14:00:00	Analyzed 1123240	06/11/2024	14:00:00	ADR
NELAC TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1122859	06/07/2024	13:58:40	Analyzed 1122859	06/07/2024	13:58:40	SRJ
NELAC Cyanide Distillation	10/5	ml					11



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SM 4500-CN⁻C-2016 Prepared: 1122879 06/07/2024 15:00:00 Analyzed 1122879 06/07/2024 15:00:00 SRJ

NELAC **CN Dist After Chlorination** 10/5 ml 11

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/08/2024 06:36:35 JWI

NELAC **BOD Set Started** Started

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/08/2024 06:36:35 JWI

NELAC **BODc Set Started** Started

Qualifiers:

- J - Analyte detected below quantitation limit D - Duplicate RPD was higher than expected
- H - Sample started outside recommended holding time X - Standard reads higher than desired.
- S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

- (N)ELAC - Covered in our NELAC scope of accreditation
- z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
 RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



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A handwritten signature in black ink that reads 'Bill Peery'.

Bill Peery, MS, VP Technical Services



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Analytical Set **1122943**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126419820
Biochemical Oxygen Demand (BOD5)	1122943	0.3	0.200	0.500	mg/L	126419872
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126420032

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2305504	15.8	14.3	mg/L	9.97	30.0
Biochemical Oxygen Demand (BOD5)	2305617	151	164	mg/L	8.25	30.0
Biochemical Oxygen Demand (BOD5)	2305721	263	265	mg/L	0.758	30.0
Biochemical Oxygen Demand (BOD5)	2305836	6.55	6.91	mg/L	5.35	30.0
Biochemical Oxygen Demand (BOD5)	2305924	5.37	5.73	mg/L	6.49	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1122943	1.15	0.200	0.500	mg/L	126419822
Biochemical Oxygen Demand (BOD5)	1122943	1.01	0.200	0.500	mg/L	126419874
Biochemical Oxygen Demand (BOD5)	1122943	1.07	0.200	0.500	mg/L	126420034

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		229	198	mg/L	116	83.7 - 116	126419823
Biochemical Oxygen Demand (BOD5)		227	198	mg/L	115	83.7 - 116	126419875
Biochemical Oxygen Demand (BOD5)		219	198	mg/L	111	83.7 - 116	126420035

Analytical Set **1122944**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1122944	0.2	0.200	0.500	mg/L	126419906

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
BOD Carbonaceous	2305514	7.74	6.54	mg/L	16.8	30.0
BOD Carbonaceous	2305784	3.68	2.68	mg/L	31.4	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1122944	1.29	0.200	0.500	mg/L	126419908

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
BOD Carbonaceous		222	198	mg/L	112	83.7 - 116	126419909

Analytical Set **1123105**

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide, total	1122859	ND	0.00238	0.005	mg/L	126424626

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.513	0.500	mg/L	103	90.0 - 110	126424625
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424635
Cyanide, total	0.512	0.500	mg/L	102	90.0 - 110	126424644
Cyanide, total	0.514	0.500	mg/L	103	90.0 - 110	126424655
Cyanide, total	0.549	0.500	mg/L	110	90.0 - 110	126424664
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424668
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424669
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424670
Cyanide, total	0.519	0.500	mg/L	104	90.0 - 110	126424673

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide, total	2305241	ND	ND	mg/L		20.0
Cyanide, total	2305248	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.200	0.200	mg/L	100	90.0 - 110	126424624

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide, total	1122859	0.362	0.361	0.400	90.0 - 110	90.5	90.2	mg/L	0.277	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Cyanide, total	2305241	0.356	ND	0.400	mg/L	89.0	90.0 - 110	126424631	*
Cyanide, total	2305248	0.354	ND	0.400	mg/L	88.5	90.0 - 110	126424634	*

Analytical Set 1123107

SM 4500-CN⁻ G-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide After Chlorination	1122879	ND	0.00119	0.0025	mg/L	126424710

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.513	0.500	mg/L	103	90.0 - 110	126424705
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424706
Cyanide After Chlorination	0.512	0.500	mg/L	102	90.0 - 110	126424707
Cyanide After Chlorination	0.514	0.500	mg/L	103	90.0 - 110	126424708
Cyanide After Chlorination	0.549	0.500	mg/L	110	90.0 - 110	126424709
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424711
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424718
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424719

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.519	0.500	mg/L	104	90.0 - 110	126424720

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2305623	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.200	0.200	mg/L	100	90.0 - 110	126424704

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1122879	0.180	0.180	0.200	90.0 - 110	90.0	90.0	mg/L	0	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2305623	0.365	0.0014	0.400	mg/L	91.2	90.0 - 110	126424716

Analytical Set 1123329

EPA 351.2 2

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Kjeldahl Nitrogen	1122995	ND	0.00712	0.050	mg/L	126430743

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.41	5.00	mg/L	108	90.0 - 110	126430734
Total Kjeldahl Nitrogen	5.38	5.00	mg/L	108	90.0 - 110	126430735
Total Kjeldahl Nitrogen	5.50	5.00	mg/L	110	90.0 - 110	126430739
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126430750
Total Kjeldahl Nitrogen	5.43	5.00	mg/L	109	90.0 - 110	126430757

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Kjeldahl Nitrogen	2304918	7.46	7.58	mg/L	1.60	20.0
Total Kjeldahl Nitrogen	2304932	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126430733

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Total Kjeldahl Nitrogen	1122995	4.81	4.79	5.00	90.0 - 110	96.2	95.8	mg/L	0.417	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Total Kjeldahl Nitrogen	2304918	12.0	7.58	10.0	mg/L	44.2	80.0 - 120	126430742	*
Total Kjeldahl Nitrogen	2304932	-0.389	ND	5.00	mg/L	0	80.0 - 120	126430748	*

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Analytical Set **1124055**

EPA 350.1 2

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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Ammonia Nitrogen	1123008	ND	0.00336	0.020	mg/L	126449003

CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126449002
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126449011
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126449021
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449029
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449040
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126449051
Ammonia Nitrogen	2.03	2.00	mg/L	102	90.0 - 110	126449062
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449071
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449081
Ammonia Nitrogen	1.98	2.00	mg/L	99.0	90.0 - 110	126449091
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449100
Ammonia Nitrogen	1.97	2.00	mg/L	98.5	90.0 - 110	126449111
Ammonia Nitrogen	2.00	2.00	mg/L	100	90.0 - 110	126449116

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	2305608	0.077	0.081	mg/L	5.06	20.0
Ammonia Nitrogen	2305651	0.052	0.109	mg/L	70.8 *	20.0

ICV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449001

LCS Dup

<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	1123008	2.14	2.18	2.00	90.0 - 110	107	109	mg/L	1.85	20.0

Mat. Spike

<i>Parameter</i>	<i>Sample</i>	<i>Spike</i>	<i>Unknown</i>	<i>Known</i>	<i>Units</i>	<i>Recovery %</i>	<i>Limits %</i>	<i>File</i>
Ammonia Nitrogen	2305608	2.10	0.081	2.00	mg/L	101	80.0 - 120	126449008
Ammonia Nitrogen	2305651	2.10	0.109	2.00	mg/L	99.6	80.0 - 120	126449012

Analytical Set **1122809**

SM 4500-CI G-2011

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Cl2 Res.,Total(Onsite)Spec Mid	2305628	NEGATT	NEGATIVE	mg/L		20

Analytical Set **1122810**

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Field Cl2 Check for CNA	2305628	NEGATT	NEGATIVE			20

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Analytical Set **1122811** **SM 4500-O G-2016**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Dissolved Oxygen Onsite	2305628	6.6	6.5	mg/L	1.5	20

Analytical Set **1122812** **SM 4500-H+ B-2011**

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	6.0	6.0	SU	100	90 - 110	
pH (Onsite)	6.0	6.0	SU	100	90 - 110	

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
pH (Onsite)	2305628	8.2	8.1	SU	1.2	20

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	1122812	8.1	8.0	SU	101.3	90 - 110	
pH (Onsite)	1122812	8.0	8.0	SU	100	90 - 110	

Analytical Set **1123056** **SM 2550 B - 2010**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Temperature (onsite)	2305628	38	39	Degrees C	2.6	20

Analytical Set **1123475** **SM 2540 D-2015**

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	ND	2	2	mg/L	126434412

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	-0.0001			grams	126434411

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2305567	7210	7570	mg/L	4.87	20.0
Total Suspended Solids	2305644	793	653	mg/L	19.4	20.0
Total Suspended Solids	2305738	545	610	mg/L	11.3	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1123475	53.0	50.0	mg/L	106	90.0 - 110	126434445

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		96.0	100	mg/L	96.0	90.0 - 110	126434444

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Analytical Set **1123493**

SM 2540 C-2015

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	ND	5.00	5.00	mg/L	126434809

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	-0.0002			grams	126434796

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Dissolved Solids	2305623	800	800	mg/L	0	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Dissolved Solids	1123493	200	200	mg/L	100	85.0 - 115	126434810

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Dissolved Solids		104	100	mg/L	104	90.0 - 110	126434797

Analytical Set **1123989**

EPA 1664B

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1123989	ND	0.557	4.00	mg/L	126447630

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Oil and Grease (HEM)	1123989	37.1	40.0	mg/L	92.8	78.0 - 114	126447631

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2305623	38.5	0	ND	40.0	78.0 - 114	96.2		mg/L		20.0

Analytical Set **1123092**

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.129	0.100	mg/L	129	70.0 - 130	126424313
Nitrate-Nitrogen Total	0.0223	0.0226	mg/L	98.7	70.0 - 130	126424313

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	ND	0.0972	0.300	mg/L	126424314
Fluoride	1123092	ND	0.010	0.100	mg/L	126424314
Nitrate-Nitrogen Total	1123092	ND	0.00745	0.0226	mg/L	126424314

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424310

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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424328
Chloride	1123092	0.045	0.0972	0.300	mg/L	126424342
Fluoride	1123092	0	0.010	0.100	mg/L	126424310
Fluoride	1123092	0	0.010	0.100	mg/L	126424328
Fluoride	1123092	0	0.010	0.100	mg/L	126424342
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424310
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424328
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424342

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.5	10.0	mg/L	105	90.0 - 110	126424309
Chloride	10.3	10.0	mg/L	103	90.0 - 110	126424327
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126424341
Fluoride	9.96	10.0	mg/L	99.6	90.0 - 110	126424309
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126424327
Fluoride	9.99	10.0	mg/L	99.9	90.0 - 110	126424341
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424309
Nitrate-Nitrogen Total	2.26	2.26	mg/L	100	90.0 - 110	126424327
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424341

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1123092	5.27	5.28	5.00	85.0 - 115	105	106	mg/L	0.190	20.0
Fluoride	1123092	5.11	5.17	5.00	88.0 - 120	102	103	mg/L	1.17	20.0
Nitrate-Nitrogen Total	1123092	1.18	1.19	1.13	88.0 - 116	104	105	mg/L	0.844	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2304482	1440	1410	1350	100	80.0 - 120	90.0	60.0 *	mg/L	40.0 *	20.0
Fluoride	2304482	87.4	87.6	ND	100	80.0 - 120	87.4	87.6	mg/L	0.229	20.0
Nitrate-Nitrogen Total	2304482	23.3	23.3	1.49	22.6	80.0 - 120	96.5	96.5	mg/L	0	20.0
Chloride	2304595	18.3	18.2	0.660	20.0	80.0 - 120	88.2	87.7	mg/L	0.569	20.0
Fluoride	2304595	18.1	17.2	ND	20.0	80.0 - 120	90.5	86.0	mg/L	5.10	20.0
Nitrate-Nitrogen Total	2304595	4.31	4.28	ND	4.52	80.0 - 120	95.4	94.7	mg/L	0.698	20.0

Analytical Set 1124447

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	ND	0.254	0.300	mg/L	126459699

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	0	0.254	0.300	mg/L	126459695
Sulfate	1124447	0	0.254	0.300	mg/L	126459717
Sulfate	1124447	0	0.254	0.300	mg/L	126459729

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.94	10.0	mg/L	99.4	90.0 - 110	126459694
Sulfate	10.1	10.0	mg/L	101	90.0 - 110	126459716
Sulfate	9.93	10.0	mg/L	99.3	90.0 - 110	126459728

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1124447	5.13	5.07	5.00	85.0 - 115	103	101	mg/L	1.18	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2306972	1020	1020	944	100	80.0 - 120	76.0 *	76.0 *	mg/L	0	20.0
Sulfate	2307646	106	104	82.5	20.0	80.0 - 120	118	108	mg/L	8.89	20.0

Analytical Set **1122852**

SM 3500-Cr B-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419252
Hexavalent Chromium	1122852	ND	0.550	3.00	ug/L	126419259
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419264

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexavalent Chromium	86.2	80.0	ug/L	108	90.0 - 110	126419253
Hexavalent Chromium	86.7	80.0	ug/L	108	90.0 - 110	126419260
Hexavalent Chromium	86.4	80.0	ug/L	108	90.0 - 110	126419265

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexavalent Chromium	1122852	85.7	85.9	80.0	85.0 - 115	107	107	ug/L	0.233	15.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Hexavalent Chromium	2304484	ND	ND	ND	80.0	70.0 - 130	0 *	0 *	ug/L		20.0

Analytical Set **1123073**

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1123013	ND	0.113	0.200	ug/L	126424063

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	5.18	5.000	ug/L	104	90.0 - 110	126424061
Mercury, Total	5.06	5.000	ug/L	101	90.0 - 110	126424062
Mercury, Total	5.10	5.000	ug/L	102	90.0 - 110	126424069
Mercury, Total	5.01	5.000	ug/L	100	90.0 - 110	126424074

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ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	20.5	20.00	ug/L	102	90.0 - 110	126424060

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.86	5.000	ug/L	97.2	90.0 - 110	126424059

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total	1123013	8.55	8.69	10.0	85.0 - 115	85.5	86.9	ug/L	1.62	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total	2305628	9.84	10.1	0.149	10.0	70.0 - 130	96.9	99.5	ug/L	2.65	20.0

Analytical Set 1123222

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Barium, Total	1123060	ND	0.000635	0.001	mg/L	126428091
Lead, Total	1123060	ND	0.000244	0.001	mg/L	126428091
Manganese, Total	1123060	ND	0.000118	0.001	mg/L	126428091
Thallium, Total	1123060	ND	0.000106	0.001	mg/L	126428091

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427991
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427996
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428000
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428108
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428115
Aluminum, Total	0.0529	0.05	mg/L	106	90.0 - 110	126428135
Aluminum, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126428137
Aluminum, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428141
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126427976
Arsenic, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427983
Arsenic, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427986
Arsenic, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126427991
Arsenic, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126427996
Arsenic, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Arsenic, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428115
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Cadmium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427976
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427983
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427991
Cadmium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427996
Cadmium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108

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CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Cadmium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428115
Cadmium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126428126
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428130
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427976
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427983
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427986
Chromium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427991
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427996
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428000
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Chromium, Total	0.050	0.05	mg/L	100	90.0 - 110	126428115
Chromium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428123
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126428126
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428130
Chromium, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428132
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427976
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126427986
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126427991
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427996
Copper, Total	0.0504	0.05	mg/L	101	90.0 - 110	126428000
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126428006
Copper, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428014
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428023
Copper, Total	0.0516	0.05	mg/L	103	90.0 - 110	126428033
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428044
Copper, Total	0.0508	0.05	mg/L	102	90.0 - 110	126428055
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428065
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126428076
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428087
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428097
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428108
Copper, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Copper, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428126
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428130
Copper, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428132
Copper, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126428133
Nickel, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126427976
Nickel, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126427983
Nickel, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126427986
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126427991
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427996
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126428108
Nickel, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126428115

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QUALITY CONTROL



SPAC-R

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428123
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126427976
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Silver, Total	0.0509	0.05	mg/L	102	90.0 - 110	126427986
Silver, Total	0.0506	0.05	mg/L	101	90.0 - 110	126427991
Silver, Total	0.0508	0.05	mg/L	102	90.0 - 110	126427996
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428000
Silver, Total	0.0505	0.05	mg/L	101	90.0 - 110	126428108
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126428115
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428123
Silver, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428130
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428132
Silver, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428133
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428135
Zinc, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427969
Zinc, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427976
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126427983
Zinc, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126427986
Zinc, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427991
Zinc, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126427996
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Zinc, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428115
Zinc, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Arsenic, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126427964
Beryllium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427964
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427964
Chromium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126427964
Nickel, Total	0.0504	0.05	mg/L	101	90.0 - 110	126427964
Silver, Total	0.0515	0.05	mg/L	103	90.0 - 110	126427964
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427964

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Barium, Total	1123060	0.502	0.503	0.500	85.0 - 115	100	101	mg/L	0.199	20.0
Lead, Total	1123060	0.510	0.521	0.500	85.0 - 115	102	104	mg/L	2.13	20.0
Manganese, Total	1123060	0.488	0.489	0.500	85.0 - 115	97.6	97.8	mg/L	0.205	20.0
Thallium, Total	1123060	0.513	0.526	0.500	85.0 - 115	103	105	mg/L	2.50	20.0

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QUALITY CONTROL



SPAC-R

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MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126427965

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Lead, Total	2305811	0.551	0.563	0.0438	0.500	70.0 - 130	101	104	mg/L	2.34	20.0
Barium, Total	2305911	0.515	0.517	0.017	0.500	70.0 - 130	99.6	100	mg/L	0.401	20.0
Manganese, Total	2305911	0.484	0.469	0.000754	0.500	70.0 - 130	96.6	93.6	mg/L	3.15	20.0
Thallium, Total	2305911	0.493	0.499	0.000227	0.500	70.0 - 130	98.6	99.8	mg/L	1.21	20.0

Analytical Set 1123439

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MDL</u>	<u>Units</u>	<u>File</u>
Antimony, Total	1123060	ND	0.000847	0.003	mg/L	126432756
Barium, Total	1123060	ND	0.00207	0.005	mg/L	126432756
Lead, Total	1123060	ND	0.000549	0.001	mg/L	126432756
Manganese, Total	1123060	ND	0.000168	0.001	mg/L	126432756
Selenium, Total	1123060	ND	0.00294	0.005	mg/L	126432756
Thallium, Total	1123060	ND	0.000966	0.001	mg/L	126432756

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126432753
Antimony, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126432763
Antimony, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126432770
Antimony, Total	0.0501	0.05	mg/L	100	90.0 - 110	126432779
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432792
Antimony, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126432799
Antimony, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126432809
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432816
Barium, Total	0.0512	0.05	mg/L	102	90.0 - 110	126432753
Barium, Total	0.051	0.05	mg/L	102	90.0 - 110	126432763
Lead, Total	0.0533	0.05	mg/L	107	90.0 - 110	126432739
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432749
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432753
Lead, Total	0.0534	0.05	mg/L	107	90.0 - 110	126432763
Manganese, Total	0.0539	0.05	mg/L	108	90.0 - 110	126432753
Manganese, Total	0.0523	0.05	mg/L	105	90.0 - 110	126432763
Manganese, Total	0.0545	0.05	mg/L	109	90.0 - 110	126432792
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432799
Manganese, Total	0.0525	0.05	mg/L	105	90.0 - 110	126432809
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432816
Selenium, Total	0.052	0.05	mg/L	104	90.0 - 110	126432739
Selenium, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432749
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432753
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432763

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Selenium, Total	0.0521	0.05	mg/L	104	90.0 - 110	126432770
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432779

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0517	0.05	mg/L	103	90.0 - 110	126432734
Barium, Total	0.0522	0.05	mg/L	104	90.0 - 110	126432734
Lead, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432734
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126432734
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432734

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Antimony, Total	1123060	0.485	0.494	0.500	85.0 - 115	97.0	98.8	mg/L	1.84	20.0
Barium, Total	1123060	0.496	0.502	0.500	85.0 - 115	99.2	100	mg/L	1.20	20.0
Lead, Total	1123060	0.502	0.507	0.500	85.0 - 115	100	101	mg/L	0.991	20.0
Manganese, Total	1123060	0.521	0.531	0.500	85.0 - 115	104	106	mg/L	1.90	20.0
Selenium, Total	1123060	0.491	0.502	0.500	85.0 - 115	98.2	100	mg/L	2.22	20.0
Thallium, Total	1123060	0.496	0.504	0.500	85.0 - 115	99.2	101	mg/L	1.60	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Lead, Total	0.000969	0.001	mg/L	96.9	25.0 - 175	126432735
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126432735

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Antimony, Total	2305811	0.490	0.481	ND	0.500	70.0 - 130	98.0	96.2	mg/L	1.85	20.0
Barium, Total	2305811	0.509	0.507	0.0167	0.500	70.0 - 130	98.5	98.1	mg/L	0.407	20.0
Lead, Total	2305811	0.441	0.433	ND	0.500	70.0 - 130	88.2	86.6	mg/L	1.83	20.0
Manganese, Total	2305811	0.457	0.444	0.000782	0.500	70.0 - 130	91.2	88.6	mg/L	2.89	20.0
Selenium, Total	2305811	0.468	0.458	ND	0.500	70.0 - 130	93.6	91.6	mg/L	2.16	20.0
Thallium, Total	2305811	0.445	0.439	ND	0.500	70.0 - 130	89.0	87.8	mg/L	1.36	20.0

Analytical Set

1123677

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1123060	ND	0.0156	0.500	mg/L	126438124
Iron, Total	1123060	ND	0.00379	0.025	mg/L	126438124

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126438114
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126438115
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438123
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438130

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QUALITY CONTROL



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438136
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438145
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438154
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438164
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438172
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438179
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126438114
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126438115
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438123
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438130
Iron, Total	2.42	2.50	mg/L	96.8	90.0 - 110	126438136
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438145
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438154
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438164
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438172
Iron, Total	2.40	2.50	mg/L	96.0	90.0 - 110	126438179

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126438108
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126438108

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438112
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126438112

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1123060	4.89	4.92	5.00	85.0 - 115	97.8	98.4	mg/L	0.612	25.0
Iron, Total	1123060	0.488	0.490	0.500	85.0 - 115	97.6	98.0	mg/L	0.409	25.0

LDR

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	96.9	100	mg/L	96.9	90.0 - 110	126438109
Iron, Total	9.75	10.0	mg/L	97.5	90.0 - 110	126438109

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126438113
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126438113

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2305811	31.1	31.8	27.1	5.00	75.0 - 125	80.0	94.0	mg/L	16.1	25.0
Iron, Total	2305811	0.497	0.503	0.00607	0.500	75.0 - 125	98.2	99.4	mg/L	1.21	25.0

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QUALITY CONTROL



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Analytical Set **1124581**

SM 5310 C-2014

AWRL/LOQ C											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	1.99	2.00	mg/L	99.5	50.0 - 150	126462988					
Blank											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0901	0.0618	0.500	mg/L	126462987					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126462993					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126463008					
CCB											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0848	0.0618	0.500	mg/L	126462981					
Total Organic Carbon	1124581	0.0931	0.0618	0.500	mg/L	126462989					
Total Organic Carbon	1124581	0.110	0.0618	0.500	mg/L	126463005					
Total Organic Carbon	1124581	0.155	0.0618	0.500	mg/L	126463019					
CCV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462984					
Total Organic Carbon	10.4	10.0	mg/L	104	90.0 - 110	126462991					
Total Organic Carbon	10.5	10.0	mg/L	105	90.0 - 110	126463006					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126463020					
ICL											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	20.5	20.0	mg/L	102	90.0 - 110	126462983					
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126462990					
ICV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.1	10.0	mg/L	101	90.0 - 110	126462985					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462992					
LCS											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>				
Total Organic Carbon	1124581	5.07	5.00	mg/L	101	85.0 - 115	126462986				
Total Organic Carbon	1124581	5.22	5.00	mg/L	104	85.0 - 115	126462994				
Total Organic Carbon	1124581	5.35	5.00	mg/L	107	85.0 - 115	126463007				
MSD											
<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Organic Carbon	2306732	14.7	14.4	4.14	10.0	85.0 - 115	106	103	mg/L	2.88	20.0
Total Organic Carbon	2306796	14.4	14.5	3.74	10.0	85.0 - 115	107	108	mg/L	0.934	20.0
Standard											
<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Organic Carbon		48.4	50.0	mg/L	96.8	90.0 - 110	126462982				

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QUALITY CONTROL



SPAC-R

SPACEX
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Project
1106094

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Analytical Set **1124795**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Thallium, Total	1123060	ND	0.00025	0.0005	mg/L	126467375

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126467374
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467383
Thallium, Total	0.0509	0.05	mg/L	102	90.0 - 110	126467393
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467402
Thallium, Total	0.0456	0.05	mg/L	91.2	90.0 - 110	126467411

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126467360

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	1123060	0.561	0.567	0.500	85.0 - 115	112	113	mg/L	1.06	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	2305811	0.548	0.558	ND	0.500	70.0 - 130	110	112	mg/L	1.81	20.0

Analytical Set **1123030**

EPA 624.1

BFB

<u>Parameter</u>	<u>Sample</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>
BFB Mass 173	1123030	174	140	1.3	0 - 2.00	126423572
BFB Mass 174	1123030	95.0	10384	56.9	50.0 - 100	126423572
BFB Mass 175	1123030	174	921	8.9	5.00 - 9.00	126423572
BFB Mass 176	1123030	174	10267	98.9	95.0 - 101	126423572
BFB Mass 177	1123030	176	672	6.5	5.00 - 9.00	126423572
BFB Mass 50	1123030	95.0	4030	22.1	15.0 - 40.0	126423572
BFB Mass 75	1123030	95.0	9801	53.7	30.0 - 60.0	126423572
BFB Mass 95	1123030	95.0	18235	100.0	100 - 100	126423572
BFB Mass 96	1123030	95.0	1272	7.0	5.00 - 9.00	126423572

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
1,1,1-Trichloroethane	1123030	ND	0.531	1.00	ug/L	126423576
1,1,2-Trichloroethane	1123030	ND	0.563	1.00	ug/L	126423576
1,1-Dichloroethane	1123030	ND	0.593	1.00	ug/L	126423576
1,1-Dichloroethylene	1123030	ND	0.574	1.00	ug/L	126423576
1,2-Dibromoethane (EDB)	1123030	ND	0.562	1.00	ug/L	126423576
1,2-Dichloroethane	1123030	ND	0.590	1.00	ug/L	126423576
1,2-Dichloropropane	1123030	ND	0.615	1.00	ug/L	126423576
Benzene	1123030	ND	0.453	1.00	ug/L	126423576

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Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Bromodichloromethane	1123030	ND	0.409	1.00	ug/L	126423576
Bromoform	1123030	ND	0.500	1.00	ug/L	126423576
Carbon Tetrachloride	1123030	ND	0.299	1.00	ug/L	126423576
Chlorobenzene	1123030	ND	0.558	1.00	ug/L	126423576
Chloroethane	1123030	ND	1.12	1.12	ug/L	126423576
Chloroform	1123030	ND	0.463	1.00	ug/L	126423576
Chloromethane (Methyl Chloride)	1123030	ND	0.811	1.00	ug/L	126423576
cis-1,3-Dichloropropene	1123030	ND	0.660	1.00	ug/L	126423576
Dibromochloromethane	1123030	ND	0.311	1.00	ug/L	126423576
Dichloromethane	1123030	ND	1.02	1.02	ug/L	126423576
Ethylbenzene	1123030	ND	0.498	1.00	ug/L	126423576
m-Dichlorobenzene (1,3-DCB)	1123030	ND	0.619	1.00	ug/L	126423576
Methyl ethyl ketone (Butanone)	1123030	ND	0.742	1.00	ug/L	126423576
o-Dichlorobenzene (1,2-DCB)	1123030	ND	0.532	1.00	ug/L	126423576
p-Dichlorobenzene (1,4-DCB)	1123030	ND	0.837	1.00	ug/L	126423576
Tetrachloroethylene	1123030	ND	0.607	1.00	ug/L	126423576
Toluene	1123030	ND	0.655	1.00	ug/L	126423576
trans-1,2-Dichloroethylene	1123030	ND	0.701	1.00	ug/L	126423576
trans-1,3-Dichloropropene	1123030	ND	0.627	1.00	ug/L	126423576
Trichloroethylene	1123030	ND	0.521	1.00	ug/L	126423576
Vinyl chloride	1123030	ND	0.702	1.00	ug/L	126423576

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	99990	99910	49960	149900	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	100400	99910	49960	149900	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	91680	99910	49960	149900	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	210300	205900	103000	308900	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	208900	205900	103000	308900	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	212500	205900	103000	308900	126423576	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	82270	99910	49960	149900	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	190600	205900	103000	308900	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423582	1123030

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	11.97	11.97	11.91	12.03	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	11.97	11.97	11.91	12.03	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	11.97	11.97	11.91	12.03	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	9.597	9.597	9.537	9.657	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	9.597	9.597	9.537	9.657	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	9.597	9.597	9.537	9.657	126423576	1123030



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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423582	1123030

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1123030	20.7	20.2	20.0	70.0 - 130	104	101	ug/L	2.93	21.0
1,1,2,2-Tetrachloroethane	1123030	22.8	22.0	20.0	60.0 - 140	114	110	ug/L	3.57	36.0
1,1,2-Trichloroethane	1123030	21.3	21.8	20.0	70.0 - 130	106	109	ug/L	2.79	27.0
1,1-Dichloroethane	1123030	21.5	21.0	20.0	70.0 - 130	108	105	ug/L	2.82	24.0
1,1-Dichloroethylene	1123030	21.0	21.0	20.0	50.0 - 150	105	105	ug/L	0	40.0
1,2-Dibromoethane (EDB)	1123030	21.6	21.3	20.0	78.4 - 122	108	106	ug/L	1.87	30.0
1,2-Dichloroethane	1123030	21.6	21.9	20.0	70.0 - 130	108	110	ug/L	1.83	29.0
1,2-Dichloropropane	1123030	21.3	21.2	20.0	35.0 - 165	106	106	ug/L	0	69.0
Benzene	1123030	20.1	19.5	20.0	65.0 - 135	100	97.5	ug/L	2.53	33.0
Bromodichloromethane	1123030	21.8	21.3	20.0	65.0 - 135	109	106	ug/L	2.79	34.0
Bromoform	1123030	20.8	20.1	20.0	70.0 - 130	104	100	ug/L	3.92	25.0
Bromomethane (Methyl Bromi)	1123030	16.4	16.2	20.0	15.0 - 185	82.0	81.0	ug/L	1.23	90.0
Carbon Tetrachloride	1123030	21.9	21.4	20.0	70.0 - 130	110	107	ug/L	2.76	26.0
Chlorobenzene	1123030	20.1	20.2	20.0	65.0 - 135	100	101	ug/L	0.995	29.0
Chloroethane	1123030	19.6	19.7	20.0	40.0 - 160	98.0	98.5	ug/L	0.509	47.0
Chloroform	1123030	21.2	20.6	20.0	70.0 - 135	106	103	ug/L	2.87	32.0
Chloromethane (Methyl Chloride)	1123030	17.2	16.4	20.0	0.100 - 205	86.0	82.0	ug/L	4.76	472
cis-1,3-Dichloropropene	1123030	19.8	19.4	20.0	25.0 - 175	99.0	97.0	ug/L	2.04	79.0
Dibromochloromethane	1123030	21.0	20.7	20.0	70.0 - 135	105	104	ug/L	0.957	30.0
Dichloromethane	1123030	20.8	20.5	20.0	60.0 - 140	104	102	ug/L	1.94	192
Ethylbenzene	1123030	21.7	21.5	20.0	60.0 - 140	108	108	ug/L	0	34.0
m-Dichlorobenzene (1,3-DCB)	1123030	22.3	21.4	20.0	70.0 - 130	112	107	ug/L	4.57	24.0
Methyl ethyl ketone (Butanone)	1123030	23.2	23.3	20.0	62.3 - 136	116	116	ug/L	0	30.0
o-Dichlorobenzene (1,2-DCB)	1123030	21.5	20.9	20.0	65.0 - 135	108	104	ug/L	3.77	31.0
p-Dichlorobenzene (1,4-DCB)	1123030	21.3	21.1	20.0	65.0 - 135	106	106	ug/L	0	31.0
Tetrachloroethylene	1123030	21.2	20.9	20.0	70.0 - 130	106	104	ug/L	1.90	23.0
Toluene	1123030	19.5	19.5	20.0	70.0 - 130	97.5	97.5	ug/L	0	22.0
trans-1,2-Dichloroethylene	1123030	19.7	19.6	20.0	70.0 - 130	98.5	98.0	ug/L	0.509	27.0
trans-1,3-Dichloropropene	1123030	21.0	21.1	20.0	50.0 - 150	105	106	ug/L	0.948	52.0
Trichloroethylene	1123030	20.3	20.3	20.0	65.0 - 135	102	102	ug/L	0	29.0
Vinyl chloride	1123030	21.5	20.3	20.0	5.00 - 195	108	102	ug/L	5.71	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2305754	98.6	96.8	1.35	100	52.0 - 162	97.2	95.4	ug/L	1.87	36.0
1,1,2,2-Tetrachloroethane	2305754	106	106	1.35	100	46.0 - 157	105	105	ug/L	0	61.0

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,2-Trichloroethane	2305754	108	109	1.35	100	52.0 - 150	107	108	ug/L	0.933	45.0
1,1-Dichloroethane	2305754	104	105	1.35	100	59.0 - 155	103	104	ug/L	0.969	40.0
1,1-Dichloroethylene	2305754	105	113	1.35	100	0.100 - 234	104	112	ug/L	7.43	32.0
1,2-Dibromoethane (EDB)	2305754	104	108	1.35	100	49.3 - 120	103	107	ug/L	3.82	30.0
1,2-Dichloroethane	2305754	108	105	1.35	100	49.0 - 155	107	104	ug/L	2.85	49.0
1,2-Dichloropropane	2305754	104	103	1.35	100	0.100 - 210	103	102	ug/L	0.979	55.0
Benzene	2305754	96.8	97.4	1.35	100	37.0 - 151	95.4	96.0	ug/L	0.627	61.0
Bromodichloromethane	2305754	103	102	1.35	100	35.0 - 155	102	101	ug/L	0.989	56.0
Bromoform	2305754	91.6	92.0	1.35	100	45.0 - 169	90.2	90.6	ug/L	0.442	42.0
Bromomethane (Methyl Bromi)	2305754	69.5	70.4	1.35	100	0.100 - 242	68.2	69.0	ug/L	1.31	61.0
Carbon Tetrachloride	2305754	87.2	88.0	1.35	100	70.0 - 140	85.8	86.6	ug/L	0.928	41.0
Chlorobenzene	2305754	98.7	99.7	1.35	100	37.0 - 160	97.4	98.4	ug/L	1.02	53.0
Chloroethane	2305754	90.7	90.4	1.35	100	14.0 - 230	89.4	89.0	ug/L	0.336	78.0
Chloroform	2305754	101	105	1.35	100	51.0 - 138	99.6	104	ug/L	3.94	54.0
Chloromethane (Methyl Chloride)	2305754	80.2	78.5	1.35	100	0.100 - 273	78.8	77.2	ug/L	2.18	60.0
cis-1,3-Dichloropropene	2305754	92.9	92.6	1.35	100	0.100 - 227	91.6	91.2	ug/L	0.328	58.0
Dibromochloromethane	2305754	95.8	97.6	1.35	100	53.0 - 149	94.4	96.2	ug/L	1.89	50.0
Dichloromethane	2305754	105	104	1.35	100	0.100 - 221	104	103	ug/L	0.969	28.0
Ethylbenzene	2305754	103	104	1.35	100	37.0 - 162	102	103	ug/L	0.979	63.0
m-Dichlorobenzene (1,3-DCB)	2305754	106	107	1.35	100	59.0 - 156	105	106	ug/L	0.951	43.0
Methyl ethyl ketone (Butanone)	2305754	127	135	11.0	100	0.100 - 211	116	124	ug/L	6.67	30.0
o-Dichlorobenzene (1,2-DCB)	2305754	103	104	1.35	100	18.0 - 190	102	103	ug/L	0.979	57.0
p-Dichlorobenzene (1,4-DCB)	2305754	101	100	1.35	100	18.0 - 190	99.6	98.6	ug/L	1.01	57.0
Tetrachloroethylene	2305754	102	103	1.35	100	64.0 - 148	101	102	ug/L	0.989	39.0
Toluene	2305754	96.4	95.6	1.35	100	47.0 - 150	95.0	94.2	ug/L	0.845	41.0
trans-1,2-Dichloroethylene	2305754	96.6	94.2	1.35	100	54.0 - 156	95.2	92.8	ug/L	2.55	45.0
trans-1,3-Dichloropropene	2305754	98.9	103	1.35	100	17.0 - 183	97.6	102	ug/L	4.12	86.0
Trichloroethylene	2305754	104	103	1.35	100	70.0 - 157	103	102	ug/L	0.979	48.0
Vinyl chloride	2305754	82.4	82.4	1.35	100	0.100 - 251	81.0	81.0	ug/L	0	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123030	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423573
1,2-DCA-d4 (SURR)	1123030	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423574
1,2-DCA-d4 (SURR)	1123030	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423576
Bromofluorobenzene (SURR)	1123030	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423573
Bromofluorobenzene (SURR)	1123030	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423574
Bromofluorobenzene (SURR)	1123030	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423576
Dibromofluoromethane (SURR)	1123030	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423573
Dibromofluoromethane (SURR)	1123030	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423574
Dibromofluoromethane (SURR)	1123030	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423576
TolueneD8 (SURR)	1123030	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423573
TolueneD8 (SURR)	1123030	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423574
TolueneD8 (SURR)	1123030	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423576
1,2-DCA-d4 (SURR)	2305623	Unknown	21.5	20.0	ug/L	108	70.0 - 130	126423579

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SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423579
Dibromofluoromethane (SURR)	2305623	Unknown	19.6	20.0	ug/L	98.0	70.0 - 130	126423579
TolueneD8 (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423579
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423581
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423582
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423581
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423582
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423581
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423582
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423581
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423582

Analytical Set

1123033

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1123033	174	140	1.3	0 - 2.00	126423603
BFB Mass 174	1123033	95.0	10384	56.9	50.0 - 100	126423603
BFB Mass 175	1123033	174	921	8.9	5.00 - 9.00	126423603
BFB Mass 176	1123033	174	10267	98.9	95.0 - 101	126423603
BFB Mass 177	1123033	176	672	6.5	5.00 - 9.00	126423603
BFB Mass 50	1123033	95.0	4030	22.1	15.0 - 40.0	126423603
BFB Mass 75	1123033	95.0	9801	53.7	30.0 - 60.0	126423603
BFB Mass 95	1123033	95.0	18235	100.0	100 - 100	126423603
BFB Mass 96	1123033	95.0	1272	7.0	5.00 - 9.00	126423603

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Acrolein	1123033	ND	2.33	4.00	ug/L	126423607
Acrylonitrile	1123033	ND	0.998	1.00	ug/L	126423607

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	99990	99910	49960	149900	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	100400	99910	49960	149900	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	91680	99910	49960	149900	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	210300	205900	103000	308900	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	208900	205900	103000	308900	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	212500	205900	103000	308900	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	85540	99910	49960	149900	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	196700	205900	103000	308900	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423612	1123033

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	11.97	11.97	11.91	12.03	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	11.97	11.97	11.91	12.03	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	11.97	11.97	11.91	12.03	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	9.597	9.597	9.537	9.657	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	9.597	9.597	9.537	9.657	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	9.597	9.597	9.537	9.657	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423612	1123033

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1123033	60.6	52.2	40.0	60.0 - 140	152 *	130	ug/L	15.6	30.0
Acrylonitrile	1123033	43.8	46.4	40.0	60.0 - 140	110	116	ug/L	5.31	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2305754	21.3	13.6	ND	200	40.0 - 160	10.6 *	6.80 *	ug/L	44.1	60.0
Acrylonitrile	2305754	251	247	ND	200	40.0 - 160	126	124	ug/L	1.61	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123033	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423604
1,2-DCA-d4 (SURR)	1123033	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423605
1,2-DCA-d4 (SURR)	1123033	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423607
Bromofluorobenzene (SURR)	1123033	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423604
Bromofluorobenzene (SURR)	1123033	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423605
Bromofluorobenzene (SURR)	1123033	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423607
Dibromofluoromethane (SURR)	1123033	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423604
Dibromofluoromethane (SURR)	1123033	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423605
Dibromofluoromethane (SURR)	1123033	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423607
TolueneD8 (SURR)	1123033	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423604
TolueneD8 (SURR)	1123033	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423605
TolueneD8 (SURR)	1123033	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423607
1,2-DCA-d4 (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423608
Bromofluorobenzene (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423608
Dibromofluoromethane (SURR)	2305623	Unknown	19.0	20.0	ug/L	95.0	70.0 - 130	126423608
TolueneD8 (SURR)	2305623	Unknown	19.5	20.0	ug/L	97.5	70.0 - 130	126423608
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423611
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423612
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423611
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423612
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423611

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QUALITY CONTROL



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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423612
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423611
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423612

Analytical Set

1123853

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1123138	ND	0.202	0.202	ug/L	126443786
PCB-1221	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1232	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1242	1123138	ND	0.192	0.200	ug/L	126443786
PCB-1248	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1254	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1260	1123138	ND	0.161	0.200	ug/L	126443786
PCB-1262	1123138	ND	0.198	0.200	ug/L	126443786
PCB-1268	1123138	ND	0.143	0.200	ug/L	126443786

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	983	1000	ug/L	98.3	80.0 - 115	126443779
PCB-1016	1060	1000	ug/L	106	80.0 - 115	126443785
PCB-1016	1130	1000	ug/L	113	80.0 - 115	126443793
PCB-1260	881	1000	ug/L	88.1	80.0 - 115	126443779
PCB-1260	911	1000	ug/L	91.1	80.0 - 115	126443785
PCB-1260	945	1000	ug/L	94.5	80.0 - 115	126443793

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1123138	798	887	1000	39.8 - 135	79.8	88.7	ug/L	10.6	30.0
PCB-1260	1123138	649	755	1000	36.1 - 134	64.9	75.5	ug/L	15.1	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1123138	Blank	45.3	100	ug/L	45.3	10.0 - 200	126443786
Tetrachloro-m-Xylene (Surr)	1123138	Blank	48.5	100	ug/L	48.5	10.0 - 200	126443786
Decachlorobiphenyl	2305623	Unknown	0.580	0.976	ug/L	59.4	10.0 - 200	126443791
Tetrachloro-m-Xylene (Surr)	2305623	Unknown	0.578	0.976	ug/L	59.2	10.0 - 200	126443791

Analytical Set

1124948

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1124341	ND	5.00	30.0	ug/L	126470972

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	150000	150000	ug/L	99.8	70.0 - 130	126470971

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	164000	150000	ug/L	110	70.0 - 130	126470983

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet	
Acenaphthene-d10-ISTD	624841	CCV	669900	669900	335000	1005000	126470971	624841	
Acenaphthene-d10-ISTD	624841	CCV	645200	669900	335000	1005000	126470983	624841	
Phenanthrene-d10-ISTD	624841	CCV	892600	892600	446300	1339000	126470971	624841	
Phenanthrene-d10-ISTD	624841	CCV	934700	892600	446300	1339000	126470983	624841	
Acenaphthene-d10-ISTD	1124341	Blank	1550000	669900	335000	1005000	*	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	1124000	669900	335000	1005000	*	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	1144000	669900	335000	1005000	*	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	1577000	892600	446300	1339000	*	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	1107000	892600	446300	1339000	*	126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	1139000	892600	446300	1339000	*	126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	1184000	669900	335000	1005000	*	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	892600	892600	446300	1339000	*	126470977	1124341

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	7.217	7.217	7.157	7.277	126470971	624841
Acenaphthene-d10-ISTD	624841	CCV	7.211	7.217	7.157	7.277	126470983	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470971	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470983	624841
Acenaphthene-d10-ISTD	1124341	Blank	7.211	7.217	7.157	7.277	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	7.211	7.217	7.157	7.277	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	7.211	7.217	7.157	7.277	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	8.450	8.450	8.390	8.510	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	8.455	8.450	8.390	8.510	126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	8.456	8.450	8.390	8.510	126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	7.211	7.217	7.157	7.277	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	8.456	8.450	8.390	8.510	126470977	1124341

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1124341	49.1	72.7	150	56.0 - 112	32.7 *	48.5 *	ug/L	38.9 *	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	624841	CCV	28300	25000	ug/L	113	50.0 - 130	126470971
4-Nonylphenol-SURR	624841	CCV	29600	25000	ug/L	118	50.0 - 130	126470983
4-Nonylphenol-SURR	1124341	Blank	14700	25000	ug/L	58.8	50.0 - 130	126470972
4-Nonylphenol-SURR	1124341	LCS	16200	25000	ug/L	64.8	50.0 - 130	126470973
4-Nonylphenol-SURR	1124341	LCS Dup	24000	25000	ug/L	96.0	50.0 - 130	126470974
4-Nonylphenol-SURR	2305623	Unknown	32.6	29.0	ug/L	112	50.0 - 130	126470977

Analytical Set

1125008

EPA 625.1

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1123370	ND	1.03	1.03	ug/L	126472016
1,2,4-Trichlorobenzene	1123370	ND	0.941	1.00	ug/L	126472016
1,2-Dichlorobenzene	1123370	ND	1.04	5.00	ug/L	126472016
1,2-DPH (as azobenzene)	1123370	ND	0.238	1.00	ug/L	126472016
1,3-Dichlorobenzene	1123370	ND	0.954	5.00	ug/L	126472016
1,4-Dichlorobenzene	1123370	ND	1.01	5.00	ug/L	126472016
2,4,5-Trichlorophenol	1123370	ND	0.961	5.00	ug/L	126472016
2,4,6-Trichlorophenol	1123370	ND	1.24	2.00	ug/L	126472016
2,4-Dichlorophenol	1123370	ND	0.222	1.00	ug/L	126472016
2,4-Dimethylphenol	1123370	ND	0.536	1.00	ug/L	126472016
2,4-Dinitrophenol	1123370	ND	1.34	2.00	ug/L	126472016
2,4-Dinitrotoluene	1123370	ND	1.35	2.00	ug/L	126472016
2,6-Dinitrotoluene	1123370	ND	1.29	2.00	ug/L	126472016
2-Chloronaphthalene	1123370	ND	0.150	1.00	ug/L	126472016
2-Chlorophenol	1123370	ND	0.275	1.00	ug/L	126472016
2-Methylphenol (o-Cresol)	1123370	ND	8.48	10.0	ug/L	126472016
2-Nitrophenol	1123370	ND	0.554	1.00	ug/L	126472016
3&4-Methylphenol (m&p-Cresol)	1123370	ND	7.78	8.00	ug/L	126472016
3,3'-Dichlorobenzidine	1123370	ND	1.39	2.00	ug/L	126472016
4,6-Dinitro-2-methylphenol	1123370	ND	1.15	2.00	ug/L	126472016
4-Bromophenyl phenyl ether	1123370	ND	0.772	1.00	ug/L	126472016
4-Chlorophenyl phenyl ethe	1123370	ND	0.202	1.00	ug/L	126472016
4-Nitrophenol	1123370	ND	0.789	1.00	ug/L	126472016
Acenaphthene	1123370	ND	0.177	1.00	ug/L	126472016
Acenaphthylene	1123370	ND	0.240	1.00	ug/L	126472016
Aniline	1123370	ND	2470	2470	ug/L	126472016
Anthracene	1123370	ND	0.241	1.00	ug/L	126472016
Benzidine	1123370	ND	1.40	1.50	ug/L	126472016
Benzo(a)anthracene	1123370	ND	0.225	1.00	ug/L	126472016
Benzo(a)pyrene	1123370	ND	0.900	1.00	ug/L	126472016
Benzo(b)fluoranthene	1123370	ND	0.547	1.00	ug/L	126472016
Benzo(ghi)perylene	1123370	ND	0.881	1.00	ug/L	126472016
Benzo(k)fluoranthene	1123370	ND	0.252	1.00	ug/L	126472016
Benzyl Butyl phthalate	1123370	0.320	0.204	7.50	ug/L	126472016
Bis(2-chloroethoxy)methane	1123370	ND	0.277	1.00	ug/L	126472016
Bis(2-chloroethyl)ether	1123370	ND	0.348	1.00	ug/L	126472016
Bis(2-chloroisopropyl)ether	1123370	ND	0.738	1.00	ug/L	126472016
Bis(2-ethylhexyl)phthalate	1123370	ND	1.12	7.50	ug/L	126472016
Chrysene (Benzo(a)phenanthrene)	1123370	ND	0.289	1.00	ug/L	126472016
Dibenz(a,h)anthracene	1123370	ND	0.689	1.00	ug/L	126472016
Diethyl phthalate	1123370	ND	0.253	5.70	ug/L	126472016
Dimethyl phthalate	1123370	ND	0.540	4.80	ug/L	126472016
Di-n-butylphthalate	1123370	ND	0.978	7.50	ug/L	126472016
Di-n-octylphthalate	1123370	ND	1.92	2.00	ug/L	126472016
Fluoranthene(Benzo(j,k)fluorene)	1123370	ND	0.318	1.00	ug/L	126472016

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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Fluorene	1123370	ND	0.275	1.00	ug/L	126472016
Hexachlorobenzene	1123370	ND	0.871	1.00	ug/L	126472016
Hexachlorobutadiene	1123370	ND	1.03	1.03	ug/L	126472016
Hexachlorocyclopentadiene	1123370	ND	0.536	1.00	ug/L	126472016
Hexachloroethane	1123370	ND	1.05	2.00	ug/L	126472016
Indeno(1,2,3-cd)pyrene	1123370	ND	0.596	1.00	ug/L	126472016
Isophorone	1123370	ND	0.429	1.00	ug/L	126472016
Naphthalene	1123370	ND	0.225	1.00	ug/L	126472016
Nitrobenzene	1123370	ND	0.271	1.00	ug/L	126472016
n-Nitrosodiethylamine	1123370	ND	0.747	1.00	ug/L	126472016
N-Nitrosodimethylamine	1123370	ND	0.542	1.00	ug/L	126472016
n-Nitroso-di-n-butylamine	1123370	ND	0.210	1.00	ug/L	126472016
N-Nitrosodi-n-propylamine	1123370	ND	0.425	1.00	ug/L	126472016
N-Nitrosodiphenylamine (as DPA)	1123370	ND	0.404	1.00	ug/L	126472016
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	ND	0.588	1.00	ug/L	126472016
Pentachlorobenzene	1123370	ND	0.977	1.00	ug/L	126472016
Pentachlorophenol	1123370	ND	0.960	5.00	ug/L	126472016
Phenanthrene	1123370	ND	0.269	1.00	ug/L	126472016
Phenol	1123370	ND	0.332	1.00	ug/L	126472016
Pyrene	1123370	ND	0.291	1.00	ug/L	126472016
Pyridine	1123370	ND	1.35	1.35	ug/L	126472016

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
1,2,4,5-Tetrachlorobenzene	48400	50000	ug/L	96.8	60.0 - 140	126472015
1,2,4-Trichlorobenzene	50400	50000	ug/L	101	61.0 - 130	126472015
1,2-Dichlorobenzene	45200	50000	ug/L	90.4	60.0 - 140	126472015
1,2-DPH (as azobenzene)	48600	50000	ug/L	97.2	60.0 - 140	126472015
1,3-Dichlorobenzene	49100	50000	ug/L	98.2	60.0 - 140	126472015
1,4-Dichlorobenzene	45300	50000	ug/L	90.6	60.0 - 140	126472015
2,4,5-Trichlorophenol	49800	50000	ug/L	99.6	69.0 - 130	126472015
2,4,6-Trichlorophenol	47800	50000	ug/L	95.6	69.0 - 130	126472015
2,4-Dichlorophenol	47300	50000	ug/L	94.6	64.0 - 130	126472015
2,4-Dimethylphenol	43300	50000	ug/L	86.6	58.0 - 130	126472015
2,4-Dinitrophenol	46400	50000	ug/L	92.8	39.0 - 173	126472015
2,4-Dinitrotoluene	45900	50000	ug/L	91.8	53.0 - 130	126472015
2,6-Dinitrotoluene	50200	50000	ug/L	100	68.0 - 137	126472015
2-Chloronaphthalene	52700	50000	ug/L	105	70.0 - 130	126472015
2-Chlorophenol	48600	50000	ug/L	97.2	55.0 - 130	126472015
2-Methylphenol (o-Cresol)	43400	50000	ug/L	86.8	60.0 - 140	126472015
2-Nitrophenol	49800	50000	ug/L	99.6	61.0 - 163	126472015
3&4-Methylphenol (m&p-Cresol)	41100	50000	ug/L	82.2	60.0 - 140	126472015
3,3'-Dichlorobenzidine	56400	50000	ug/L	113	18.0 - 213	126472015
4,6-Dinitro-2-methylphenol	43200	50000	ug/L	86.4	56.0 - 130	126472015
4-Bromophenyl phenyl ether	49000	50000	ug/L	98.0	70.0 - 130	126472015

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
4-Chlorophenyl phenyl ethe	46000	50000	ug/L	92.0	57.0 - 145	126472015
4-Nitrophenol	34100	50000	ug/L	68.2	35.0 - 135	126472015
Acenaphthene	48200	50000	ug/L	96.4	70.0 - 130	126472015
Acenaphthylene	50500	50000	ug/L	101	60.0 - 130	126472015
Aniline	41400	50000	ug/L	82.8	60.0 - 140	126472015
Anthracene	46800	50000	ug/L	93.6	58.0 - 130	126472015
Benzidine	25700	50000	ug/L	51.4	20.0 - 180	126472015
Benzo(a)anthracene	53100	50000	ug/L	106	42.0 - 133	126472015
Benzo(a)pyrene	52600	50000	ug/L	105	32.0 - 148	126472015
Benzo(b)fluoranthene	49800	50000	ug/L	99.6	42.0 - 140	126472015
Benzo(ghi)perylene	61200	50000	ug/L	122	13.0 - 195	126472015
Benzo(k)fluoranthene	53200	50000	ug/L	106	25.0 - 146	126472015
Benzyl Butyl phthalate	65700	50000	ug/L	131	43.0 - 140	126472015
Bis(2-chloroethoxy)methane	51200	50000	ug/L	102	52.0 - 164	126472015
Bis(2-chloroethyl)ether	49000	50000	ug/L	98.0	52.0 - 130	126472015
Bis(2-chloroisopropyl)ether	47200	50000	ug/L	94.4	63.0 - 139	126472015
Bis(2-ethylhexyl)phthalate	67700	50000	ug/L	135	43.0 - 137	126472015
Chrysene (Benzo(a)phenanthrene)	53500	50000	ug/L	107	44.0 - 140	126472015
Dibenz(a,h)anthracene	57200	50000	ug/L	114	13.0 - 200	126472015
Diethyl phthalate	44300	50000	ug/L	88.6	47.0 - 130	126472015
Dimethyl phthalate	48700	50000	ug/L	97.4	50.0 - 130	126472015
Di-n-butylphthalate	47800	50000	ug/L	95.6	52.0 - 130	126472015
Di-n-octylphthalate	72400	50000	ug/L	145	21.0 - 132 *	126472015
Fluoranthene(Benzo(j,k)fluorene)	45100	50000	ug/L	90.2	47.0 - 130	126472015
Fluorene	45800	50000	ug/L	91.6	70.0 - 130	126472015
Hexachlorobenzene	50300	50000	ug/L	101	38.0 - 142	126472015
Hexachlorobutadiene	41900	50000	ug/L	83.8	68.0 - 130	126472015
Hexachlorocyclopentadiene	58200	50000	ug/L	116	60.0 - 140	126472015
Hexachloroethane	42200	50000	ug/L	84.4	55.0 - 130	126472015
Indeno(1,2,3-cd)pyrene	56400	50000	ug/L	113	13.0 - 151	126472015
Isophorone	54600	50000	ug/L	109	52.0 - 180	126472015
Naphthalene	45000	50000	ug/L	90.0	70.0 - 130	126472015
Nitrobenzene	49200	50000	ug/L	98.4	54.0 - 158	126472015
n-Nitrosodiethylamine	52800	50000	ug/L	106	60.0 - 140	126472015
N-Nitrosodimethylamine	49200	50000	ug/L	98.4	60.0 - 140	126472015
n-Nitroso-di-n-butylamine	46000	50000	ug/L	92.0	60.0 - 140	126472015
N-Nitrosodi-n-propylamine	44900	50000	ug/L	89.8	59.0 - 170	126472015
N-Nitrosodiphenylamine (as DPA	42400	50000	ug/L	84.8	60.0 - 140	126472015
p-Chloro-m-Cresol (4-Chloro-3-me	43900	50000	ug/L	87.8	68.0 - 130	126472015
Pentachlorobenzene	45900	50000	ug/L	91.8	60.0 - 140	126472015
Pentachlorophenol	45500	50000	ug/L	91.0	42.0 - 152	126472015
Phenanthrene	43800	50000	ug/L	87.6	67.0 - 130	126472015
Phenol	43300	50000	ug/L	86.6	48.0 - 130	126472015
Pyrene	61200	50000	ug/L	122	70.0 - 130	126472015
Pyridine	55600	50000	ug/L	111	60.0 - 140	126472015

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 127	625102	198	5830	54.7	40.0 - 60.0	126472013
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126472013
DFTPP Mass 198	625102	198	10662	100.0	100 - 100	126472013
DFTPP Mass 199	625102	198	719	6.7	5.00 - 9.00	126472013
DFTPP Mass 275	625102	198	3008	28.2	10.0 - 30.0	126472013
DFTPP Mass 365	625102	198	568	5.3	1.00 - 100	126472013
DFTPP Mass 441	625102	443	968	54.8	0 - 100	126472013
DFTPP Mass 442	625102	198	9092	85.3	40.0 - 100	126472013
DFTPP Mass 443	625102	442	1766	19.4	17.0 - 23.0	126472013
DFTPP Mass 51	625102	198	3355	31.5	30.0 - 60.0	126472013
DFTPP Mass 68	625102	69.0	2	0.1	0 - 2.00	126472013
DFTPP Mass 69	625102	198	3774	35.4	0 - 100	126472013
DFTPP Mass 70	625102	69.0	19	0.5	0 - 2.00	126472013

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1123370	8.56	7.91	12.5	27.5 - 85.5	68.5	63.3	ug/L	7.89	50.0
1,2,4-Trichlorobenzene	1123370	7.85	7.36	12.5	44.0 - 142	62.8	58.9	ug/L	6.41	50.0
1,2-Dichlorobenzene	1123370	7.39	7.33	12.5	23.0 - 81.8	59.1	58.6	ug/L	0.850	50.0
1,2-DPH (as azobenzene)	1123370	10.1	10.8	12.5	12.6 - 110	80.8	86.4	ug/L	6.70	50.0
1,3-Dichlorobenzene	1123370	7.20	6.99	12.5	21.1 - 80.5	57.6	55.9	ug/L	3.00	50.0
1,4-Dichlorobenzene	1123370	7.05	6.92	12.5	21.4 - 76.9	56.4	55.4	ug/L	1.79	50.0
2,4,5-Trichlorophenol	1123370	8.80	10.9	12.5	51.3 - 109	70.4	87.2	ug/L	21.3	50.0
2,4,6-Trichlorophenol	1123370	12.9	10.7	12.5	37.0 - 144	103	85.6	ug/L	18.5	58.0
2,4-Dichlorophenol	1123370	10.0	9.85	12.5	39.0 - 135	80.0	78.8	ug/L	1.51	50.0
2,4-Dimethylphenol	1123370	4.48	3.06	12.5	23.0 - 120	35.8	24.5	ug/L	37.5	68.0
2,4-Dinitrophenol	1123370	7.87	10.0	12.5	0.100 - 191	63.0	80.0	ug/L	23.8	132
2,4-Dinitrotoluene	1123370	7.76	10.3	12.5	39.0 - 139	62.1	82.4	ug/L	28.1	42.0
2,6-Dinitrotoluene	1123370	10.6	11.2	12.5	50.0 - 158	84.8	89.6	ug/L	5.50	48.0
2-Chloronaphthalene	1123370	11.0	9.44	12.5	60.0 - 120	88.0	75.5	ug/L	15.3	24.0
2-Chlorophenol	1123370	9.81	9.73	12.5	23.0 - 134	78.5	77.8	ug/L	0.896	61.0
2-Methylphenol (o-Cresol)	1123370	8.90	8.25	12.5	38.9 - 76.1	71.2	66.0	ug/L	7.58	50.0
2-Nitrophenol	1123370	10.3	9.68	12.5	29.0 - 182	82.4	77.4	ug/L	6.26	55.0
3&4-Methylphenol (m&p-Cresol)	1123370	7.92	7.53	12.5	33.0 - 70.4	63.4	60.2	ug/L	5.18	50.0
3,3'-Dichlorobenzidine	1123370	8.29	8.76	12.5	0.100 - 262	66.3	70.1	ug/L	5.57	108
4,6-Dinitro-2-methylphenol	1123370	9.49	9.53	12.5	0.100 - 181	75.9	76.2	ug/L	0.394	203
4-Bromophenyl phenyl ether	1123370	10.5	9.96	12.5	53.0 - 127	84.0	79.7	ug/L	5.25	43.0
4-Chlorophenyl phenyl ethe	1123370	8.68	8.26	12.5	25.0 - 158	69.4	66.1	ug/L	4.87	61.0
4-Nitrophenol	1123370	3.31	3.46	12.5	0.100 - 132	26.5	27.7	ug/L	4.43	131
Acenaphthene	1123370	9.39	9.40	12.5	47.0 - 145	75.1	75.2	ug/L	0.133	48.0
Acenaphthylene	1123370	9.98	9.91	12.5	33.0 - 145	79.8	79.3	ug/L	0.629	74.0
Aniline	1123370	6760	7050	12500	70.0 - 130	54.1 *	56.4 *	ug/L	4.16	50.0
Anthracene	1123370	9.54	10.3	12.5	27.0 - 133	76.3	82.4	ug/L	7.69	66.0
Benzidine	1123370	0.830	0.290	12.5	0.100 - 36.9	6.64	2.32	ug/L	96.4 *	90.0
Benzo(a)anthracene	1123370	10.1	10.6	12.5	33.0 - 143	80.8	84.8	ug/L	4.83	53.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Benzo(a)pyrene	1123370	9.62	10.3	12.5	17.0 - 163	77.0	82.4	ug/L	6.78	72.0
Benzo(b)fluoranthene	1123370	9.52	9.98	12.5	24.0 - 159	76.2	79.8	ug/L	4.62	71.0
Benzo(ghi)perylene	1123370	11.4	11.7	12.5	0.100 - 219	91.2	93.6	ug/L	2.60	97.0
Benzo(k)fluoranthene	1123370	10.1	11.8	12.5	11.0 - 162	80.8	94.4	ug/L	15.5	63.0
Benzyl Butyl phthalate	1123370	13.3	14.0	12.5	0.100 - 152	106	112	ug/L	5.50	60.0
Bis(2-chloroethoxy)methane	1123370	10.6	10.1	12.5	33.0 - 184	84.8	80.8	ug/L	4.83	54.0
Bis(2-chloroisopropyl)ether	1123370	9.61	9.45	12.5	12.0 - 158	76.9	75.6	ug/L	1.70	108
Bis(2-chloroisopropyl)ether	1123370	9.85	9.68	12.5	36.0 - 166	78.8	77.4	ug/L	1.79	76.0
Bis(2-ethylhexyl)phthalate	1123370	14.4	15.7	12.5	8.00 - 158	115	126	ug/L	9.13	82.0
Chrysene (Benzo(a)phenanthrene)	1123370	10.2	10.9	12.5	17.0 - 168	81.6	87.2	ug/L	6.64	87.0
Dibenz(a,h)anthracene	1123370	10.6	10.6	12.5	0.100 - 227	84.8	84.8	ug/L	0	126
Diethyl phthalate	1123370	10.2	10.3	12.5	0.100 - 120	81.6	82.4	ug/L	0.976	100
Dimethyl phthalate	1123370	10.7	10.9	12.5	0.100 - 120	85.6	87.2	ug/L	1.85	183
Di-n-butylphthalate	1123370	10.9	11.3	12.5	1.00 - 120	87.2	90.4	ug/L	3.60	47.0
Di-n-octylphthalate	1123370	12.7	14.1	12.5	4.00 - 146	102	113	ug/L	10.2	69.0
Fluoranthene(Benzo(j,k)fluorene)	1123370	8.22	9.10	12.5	26.0 - 137	65.8	72.8	ug/L	10.1	66.0
Fluorene	1123370	9.42	8.92	12.5	59.0 - 121	75.4	71.4	ug/L	5.45	38.0
Hexachlorobenzene	1123370	9.89	9.38	12.5	0.100 - 152	79.1	75.0	ug/L	5.32	55.0
Hexachlorobutadiene	1123370	5.50	5.15	12.5	24.0 - 120	44.0	41.2	ug/L	6.57	62.0
Hexachlorocyclopentadiene	1123370	4.95	5.88	12.5	3.97 - 68.7	39.6	47.0	ug/L	17.1	50.0
Hexachloroethane	1123370	6.02	5.94	12.5	40.0 - 120	48.2	47.5	ug/L	1.46	52.0
Indeno(1,2,3-cd)pyrene	1123370	10.6	10.6	12.5	0.100 - 171	84.8	84.8	ug/L	0	99.0
Isophorone	1123370	9.51	9.45	12.5	21.0 - 196	76.1	75.6	ug/L	0.659	93.0
Naphthalene	1123370	8.38	8.02	12.5	21.0 - 133	67.0	64.2	ug/L	4.27	65.0
Nitrobenzene	1123370	9.82	9.26	12.5	35.0 - 180	78.6	74.1	ug/L	5.89	62.0
n-Nitrosodiethylamine	1123370	9.08	9.19	12.5	18.0 - 100	72.6	73.5	ug/L	1.23	50.0
N-Nitrosodimethylamine	1123370	6.81	7.02	12.5	30.2 - 74.9	54.5	56.2	ug/L	3.07	50.0
n-Nitroso-di-n-butylamine	1123370	9.13	9.24	12.5	48.4 - 98.5	73.0	73.9	ug/L	1.23	50.0
N-Nitrosodi-n-propylamine	1123370	9.57	9.45	12.5	0.100 - 230	76.6	75.6	ug/L	1.31	87.0
N-Nitrosodiphenylamine (as DPA	1123370	11.2	10.9	12.5	49.3 - 94.2	89.6	87.2	ug/L	2.71	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	9.26	9.52	12.5	22.0 - 147	74.1	76.2	ug/L	2.79	70.0
Pentachlorobenzene	1123370	7.91	7.85	12.5	39.3 - 93.7	63.3	62.8	ug/L	0.793	50.0
Pentachlorophenol	1123370	9.96	10.9	12.5	14.0 - 176	79.7	87.2	ug/L	8.99	86.0
Phenanthrene	1123370	10.4	10.7	12.5	54.0 - 120	83.2	85.6	ug/L	2.84	39.0
Phenol	1123370	4.83	4.79	12.5	5.00 - 120	38.6	38.3	ug/L	0.780	64.0
Pyrene	1123370	12.6	13.3	12.5	52.0 - 120	101	106	ug/L	4.83	49.0
Pyridine	1123370	7.99	6.84	12.5	11.2 - 50.6	63.9 *	54.7 *	ug/L	15.5	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126472015
2-Fluorophenol-SURR	625306	CCV	53500	100000	ug/L	53.5	10.0 - 150	126472015
4-Terphenyl-d14-SURR	625306	CCV	56500	50000	ug/L	113	30.0 - 150	126472015
Nitrobenzene-d5-SURR	625306	CCV	53100	50000	ug/L	106	30.0 - 150	126472015
Phenol-d6-SURR	625306	CCV	49000	100000	ug/L	49.0	10.0 - 150	126472015

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	1123370	Blank	54.5	100	ug/L	54.5	10.0 - 150	126472016
2,4,6-Tribromophenol	1123370	LCS	50.5	100	ug/L	50.5	10.0 - 150	126472017
2,4,6-Tribromophenol	1123370	LCS Dup	54.4	100	ug/L	54.4	10.0 - 150	126472018
2-Fluorophenol-SURR	1123370	Blank	35000	100000	ug/L	35.0	10.0 - 150	126472016
2-Fluorophenol-SURR	1123370	LCS	33200	100000	ug/L	33.2	10.0 - 150	126472017
2-Fluorophenol-SURR	1123370	LCS Dup	31900	100000	ug/L	31.9	10.0 - 150	126472018
4-Terphenyl-d14-SURR	1123370	Blank	37600	50000	ug/L	75.2	30.0 - 150	126472016
4-Terphenyl-d14-SURR	1123370	LCS	22800	50000	ug/L	45.6	30.0 - 150	126472017
4-Terphenyl-d14-SURR	1123370	LCS Dup	23700	50000	ug/L	47.4	30.0 - 150	126472018
Nitrobenzene-d5-SURR	1123370	Blank	35200	50000	ug/L	70.4	30.0 - 150	126472016
Nitrobenzene-d5-SURR	1123370	LCS	19800	50000	ug/L	39.6	30.0 - 150	126472017
Nitrobenzene-d5-SURR	1123370	LCS Dup	18500	50000	ug/L	37.0	30.0 - 150	126472018
Phenol-d6-SURR	1123370	Blank	26200	100000	ug/L	26.2	10.0 - 150	126472016
Phenol-d6-SURR	1123370	LCS	24500	100000	ug/L	24.5	10.0 - 150	126472017
Phenol-d6-SURR	1123370	LCS Dup	24200	100000	ug/L	24.2	10.0 - 150	126472018
2,4,6-Tribromophenol	2305623	Unknown	62.7	106	ug/L	59.2	10.0 - 150	126472019
2-Fluorophenol-SURR	2305623	Unknown	40.7	106	ug/L	38.4	10.0 - 150	126472019
4-Terphenyl-d14-SURR	2305623	Unknown	43.4	53.2	ug/L	81.6	30.0 - 150	126472019
Nitrobenzene-d5-SURR	2305623	Unknown	35.0	53.2	ug/L	65.8	30.0 - 150	126472019
Phenol-d6-SURR	2305623	Unknown	31.0	106	ug/L	29.2	10.0 - 150	126472019

Analytical Set

1123135

SM 4500-P E-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.0639	0.060	mg/L	106	70.0 - 130	126425460

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Phosphorus (as P), total	1123135	ND	0.010	0.030	mg/L	126425459

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.305	0.300	mg/L	102	90.0 - 110	126425461
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425476
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425489

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Phosphorus (as P), total	1123135	0.297	0.319	0.300	80.0 - 120	99.0	106	mg/L	7.14	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Phosphorus (as P), total	2305933	0.128	0.134	0.100	0.150	70.0 - 130	18.7 *	22.7 *	mg/L	19.4	20.0

Analytical Set

1123173

SM 2320 B-2011

Email: Kilgore.ProjectManagement@spllabs.com



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QUALITY CONTROL



SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1106094

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Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1123173	ND	1.00	1.00	mg/L	126425785

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	27.3	25.0	mg/L	109	90.0 - 110	126425784
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425798
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425811

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2305590	106	107	mg/L	0.939	20.0
Total Alkalinity (as CaCO3)	2305698	136	136	mg/L	0	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126425783

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2305590	130	107	25.0	mg/L	92.0	70.0 - 130	126425788
Total Alkalinity (as CaCO3)	2305698	159	136	25.0	mg/L	92.0	70.0 - 130	126425801

Analytical Set 1123591

SM 5220 D-2011

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chemical Oxygen Demand	434	400	mg/L	108	90.0 - 110	126436305

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chemical Oxygen Demand	2305419	33.6	33.6	mg/L	0	20.0
Chemical Oxygen Demand	2305557	21.9	21.9	mg/L	0	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Chemical Oxygen Demand	1123591	216	200	mg/L	108	90.0 - 110	126436306

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Chemical Oxygen Demand	2305419	245	33.6	200	mg/L	106	80.0 - 120	126436309
Chemical Oxygen Demand	2305557	222	21.9	200	mg/L	100	80.0 - 120	126436312

Analytical Set 1123697

SM 2130 B-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

Email: Kilgore.ProjectManagement@spllabs.com



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QUALITY CONTROL



Project
1106094

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Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); ICV - Initial Calibration Verification; CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; MRL Check - Minimum Reporting Limit Check Std; LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); LDR - Linear Dynamic Range Standard; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



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CHAIN OF CUSTODY

SPACE
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1 Rocket Rd
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**SPAC-R
194**

Lab Number 1106094
PO Number 2705423 Mandatory
Phone 956/543-6688

Waste Water

RETENTION POND

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 6/6/24 Time: 13:30
Sampler Printed Name: CAROLYN WOOD
Sampler Affiliation: SPAC
Sampler Signature: [Signature]

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

On Site Testing

NELAC C120 C12 Res., Total(Onsite)Spec Mid SM 4500-C1 G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RJL Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

C12k Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RJL Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

NELAC Short Hold Cr6P Hex Cr, Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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Hex Cr, Field Preservation

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R01 Date 6/6/24 Time 13:33

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R01 Date 6/6/24 Time 13:35

Results 7.07 Units mg/L ^{sw myll} Temp. 39.0 C Duplicate 7.15 Units mg/L Temp. 39.0 C

NELAC Short Hold pH pH (Onsite) SM 4500-H+ B-2011 (0.0104 days)

pH (Onsite)

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R02 Date 6/6/24 Time 13:38

Results 8.60 Units mg/L ^{R02 SV} Temp. 39.0 C Duplicate 7.15 Units mg/L ^{SV R01} Temp. 39.0 C

S2Cr Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By R02 Date 6/6/24 Time 13:43

Results NEGATIVE Units --- Temp. 39.0 C Duplicate NEGATIVE Units --- Temp. 39.0 C
R1 --- R2 --- QCR1 --- QCR2 ---

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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Temperature (onsite)

Collected By CW Date 6/6/19 Time 13:30 Analyzed By EDL Date 13/35 Time 13:40
Results 38.0 Units °C Duplicate 38.0 Units °C

2 Amber Glass Qt w/Teflon lined lid

NELAC	ID2S	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	1PCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)

2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid

NELAC Short Hold	SAAE	Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
------------------	------	-----------------------------	-----------------------

2 H2SO4 to pH <2 GIQt w/Tef-lined lid

NYPE	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
------	------------------------	---------------------------

1 H2SO4 to pH <2 GIQt w/Tef-lined lid

NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
-------	-----	----------------------	-----------------------------

1 Polyethylene 1/2 gal (White)

NELAC Short Hold	BOD	Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC Short Hold	BODc	BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC	TSS	Total Suspended Solids	SM 2540 D-2015 (7.00 days)

0 Z -- No bottle required

	CKLM	Check Limits	
NELAC Short Hold	Cr+3	Trivalent Chromium	Calculation CAS:16065-83-1 (1.00 days)

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



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NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold ID2V Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	COD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH ₄ N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TPWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mLw/Teflon lined lid

NELAC TOCL Total Organic Carbon SM 5310 C-2014 (28.0 days)



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2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN _T	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN _A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CN _{Cl}	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	!CIL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	!FIL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	IN3L	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	IS4L	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AlkT	Total Alkalinity (as CaCO ₃)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
6/06/24	13:30	AROLYN WOOD	SPL	RAE LEAN	SPL
6/06/24	17:30	RAE LEAN	SPL	FedEx	
6/07/24	10:00	FedEx		Whitwood	SPL
		Printed Name	Affiliation	Printed Name	Affiliation
		Signature		Signature	



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CHAIN OF CUSTODY

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Sample Received on Ice? Yes No
Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAP, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). ANA-Lab personnel collect samples as specified by ANA-Lab SOP #000323.

Comments



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ORIGIN ID: HRLA (55) 556-5565
 PNA LAB / RGV
 2401 VILLAGE DR S12
 BROWNSVILLE, TN 37804
 UNITED STATES US

SHIP DATE: 06JUN24
 ACTWT: 58.75 LB
 CAD: 6994257/SSFE2521
 DIM: 24x14x13 IN
 BILL THIRD PARTY

FedEx Express Package US Airbill

8171 3103 3424

1 From
 Date: 6/7/24
 Sender's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

2 Your Internal Billing Reference

3 To
 Recipient's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

Hold Weekend
 Hold Saturday

TRK# 8171 3103 3424
 0200

FRI - 07 JUN 10:30A
 PRIORITY OVERNIGHT

XS GGGG

75662
 3HV

6/7 1030 AMV
 Date Time Tech
 Temp: 1.2 1.1 C
 Therm#: 7242 Corr Fact: -0.1 C

8171 3103 3424

fedex.com 1.800.GoFedEx 1.800.463.3339

SPAC-R

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Project
1092339

Report Date: 02/28/2024
 Printed: 04/05/2024

RESULTS

Sample Results

Sample ID	Description	Collected by	Client	SPACEX	PO:	Received:
2274163	Water/WQP/Annual	Client	SPACEX			02/16/2024
	Drinking Water	Taken: 02/15/2024		15:00:00		
EPA 200.7 4.4						
		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105831 02/22/2024 15:15:00 KBI
	Parameter	Results	Units	RL	Flags	CAS Bottle
z	Calcium	80.1	mg/L	0.500		7440-70-2 03
NELAC	Iron, Total	0.0798	mg/L	0.025		7439-89-6 03
NELAC	Sodium	174	mg/L	0.500		7440-23-5 03
EPA 200.8 5.4						
		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105841 02/22/2024 21:43:00 JC2
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Manganese, Total	0.00119	mg/L	0.001		7439-96-5 03
EPA 300.0 2.1						
		Prepared:	1105412	02/20/2024	19:05:00	Analyzed 1105412 02/20/2024 19:05:00 NAZ
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Chloride	213	mg/L	30.0		
NELAC	Sulfate	342	mg/L	30.0		
SM 2320 B-2011						
		Prepared:	1106718	02/28/2024	09:42:00	Analyzed 1106718 02/28/2024 09:42:00 KNI
	Parameter	Results	Units	RL	Flags	CAS Bottle
z	Total Alkalinity (as CaCO3)	124	mg/L	1.00		
SM 2340 C-2011						
		Prepared:	1105896	02/22/2024	14:11:00	Analyzed 1105896 02/22/2024 14:11:00 SLF
	Parameter	Results	Units	RL	Flags	CAS Bottle
NELAC	Total Hardness (as CaCO3)	310	mg/L	20		
SM 2510 B-2011						
		Prepared:	1105536	02/21/2024	13:30:00	Analyzed 1105536 02/21/2024 13:30:00 ALH
	Parameter	Results	Units	RL	Flags	CAS Bottle



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Project
1092339

Report Date: 02/28/2024
 Printed: 04/05/2024

2274163 Water/WQP/Annual

Received: 02/16/2024

Drinking Water
 Collected by: Client
 Taken: 02/15/2024
 SPACE X
 PO: 15:00:00

SM 2510 B-2011 Prepared: 1105536 02/21/2024 13:30:00 Analyzed 1105536 02/21/2024 13:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Lab Spec. Conductance at 25 C	1430	umhos/cm				01

SM 2540 C-2015 Prepared: 1105436 02/20/2024 12:00:00 Analyzed 1105436 02/20/2024 12:00:00 JMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	700	mg/L	50.0			01

SM 4500-H+ B-2011 Prepared: 1105537 02/21/2024 15:30:00 Analyzed 1105537 02/21/2024 15:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
Laboratory pH	8.2@20C	SU	2.00			01

Sample Preparation

2274163 Water/WQP/Annual

Received: 02/16/2024

02/15/2024

Prepared: 02/20/2024 09:39:30 Calculated 02/20/2024 09:39:30 CAL

Environmental Fee (per Project) Verified

EPA 200.2 2.8 Prepared: 1105616 02/22/2024 10:00:00 Analyzed 1105616 02/22/2024 10:00:00 HLT

Parameter	Results	Units	RL	Flags	CAS	Bottle
Liquid Metals Digestion	50/50	ml				02

SM 2540 C-2015 Prepared: 1105103 02/20/2024 12:00:00 Analyzed 1105103 02/20/2024 12:00:00 JMB

NELAC Total Dissolved Solids Started Started



SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Project
1092339

Report Date: 02/28/2024
Printed: 04/05/2024

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

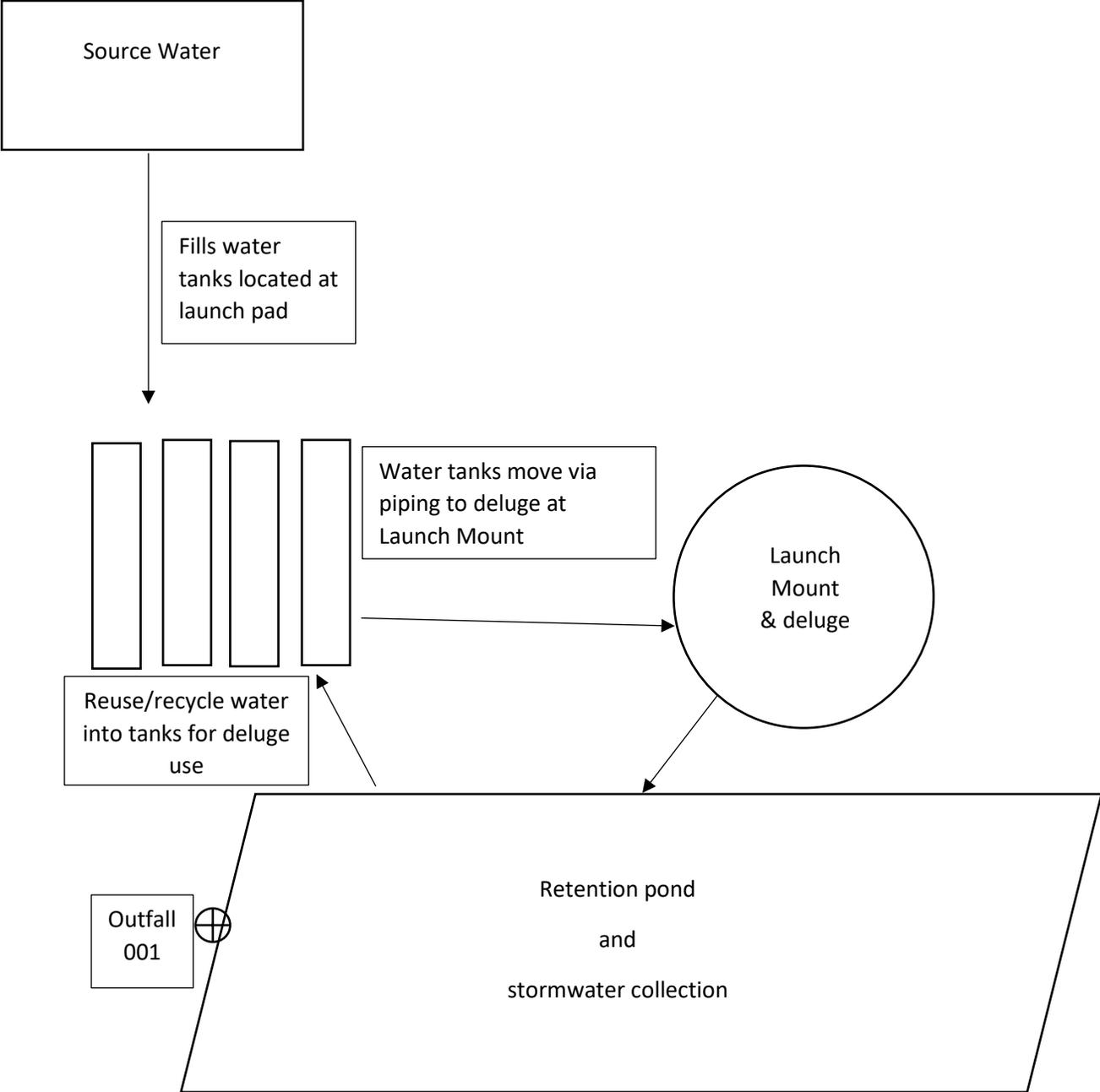
These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

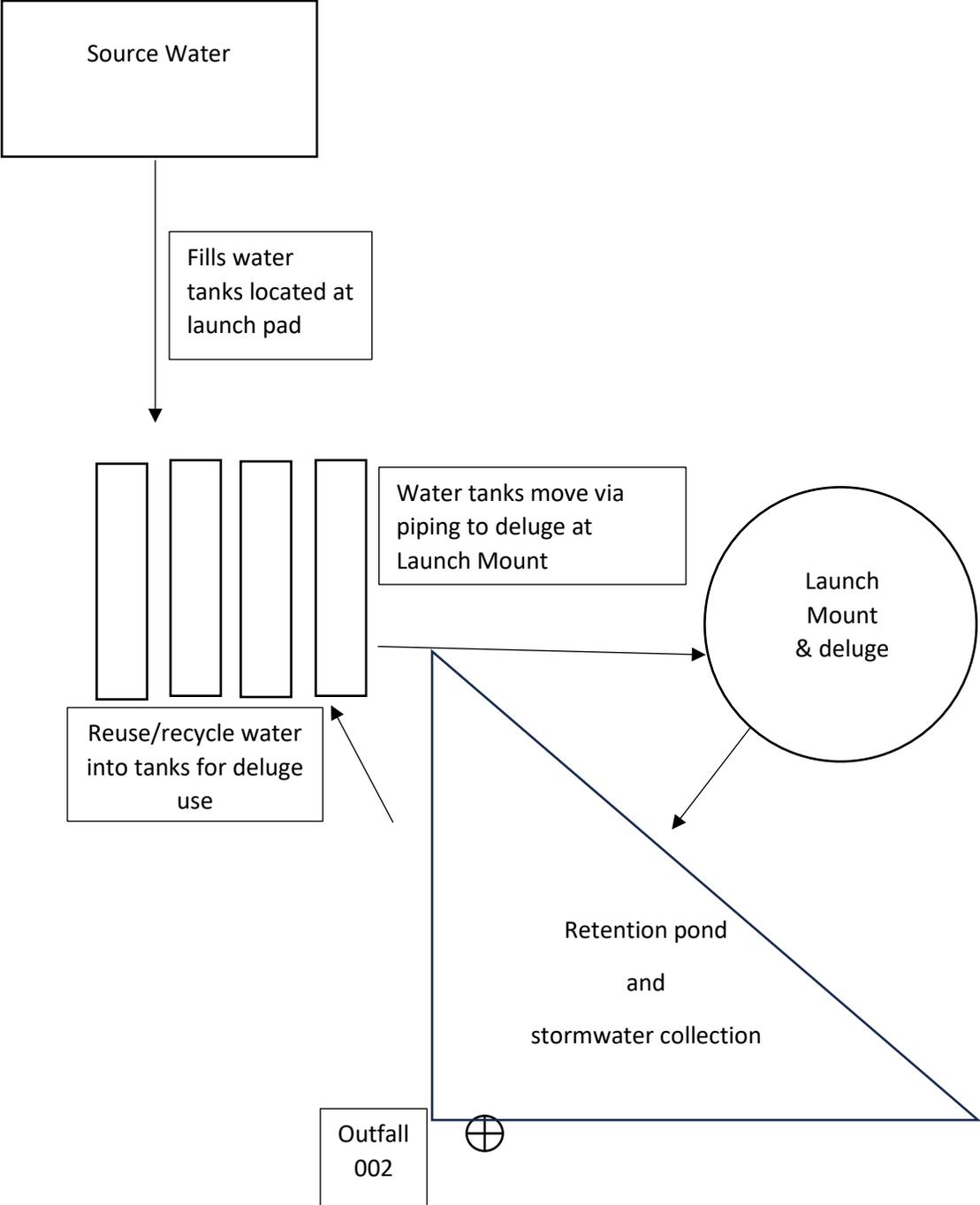
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services







Leah Whallon

From: Carolyn Wood <Carolyn.Wood@spacex.com>
Sent: Wednesday, July 3, 2024 3:16 PM
To: Leah Whallon
Cc: Katy Groom
Subject: RE: Application for Proposed Permit No. WQ0005462000; Space Exploration Technologies Corp.; Starbase Launch Pad Site
Attachments: Avery5160EasyPeelAddressLabels.doc; Affected_Landowners_table.pdf; SpaceX_TPDES Permit_Map v2 - Landowner-Affected Landowner.pdf; SPX Industrial Discharge New Spanish NORI.docx; wq0005462000-nod1.pdf; Industrial Discharge New Spanish NORI.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon Leah,

Thank you for taking the time to visit with Anthony and I on the map. Please see the responses to Items 1 & 2.

- Item 1
 - Affected landowner map and cross-referenced landowner list has been updated
 - Revised affected landowner map reflects numbered properties adjacent to the property boundary and all properties along the discharge route for one-half mile in each direction of each outfall (identified as south)
 - Updated cross-referenced land owner list for mailing label is attached
- Item 2
 - Please update the contact phone number for Ms. Groom to (310) 363-6000 for the NORI
 - Completed Industrial Discharge New Spanish NORI document

Please let me know if I may provide additional information

Kind Regards,

~ Carolyn

Carolyn A. Wood

Sr. Environmental Regulatory Engineer
1 Rocket Rd, Brownsville TX 78521
(323) 537-0071 cell



May contain Sensitive Proprietary and Confidential Information —Not for Further Distribution Without the Express Written Consent of Space Exploration Technologies Corp.

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>

Sent: Tuesday, July 2, 2024 4:20 PM

To: Katy Groom <Katy.Groom@spacex.com>; Carolyn Wood <Carolyn.Wood@spacex.com>

Subject: Application for Proposed Permit No. WQ0005462000; Space Exploration Technologies Corp.; Starbase Launch Pad Site

Good Afternoon,

Please see the attached Notice of Deficiency letter dated July 2, 2024 requesting additional information needed to declare the application administratively complete. Please send the complete response by July 16, 2024.

Please let me know if you have any questions.

Thank you,



Leah Whallon

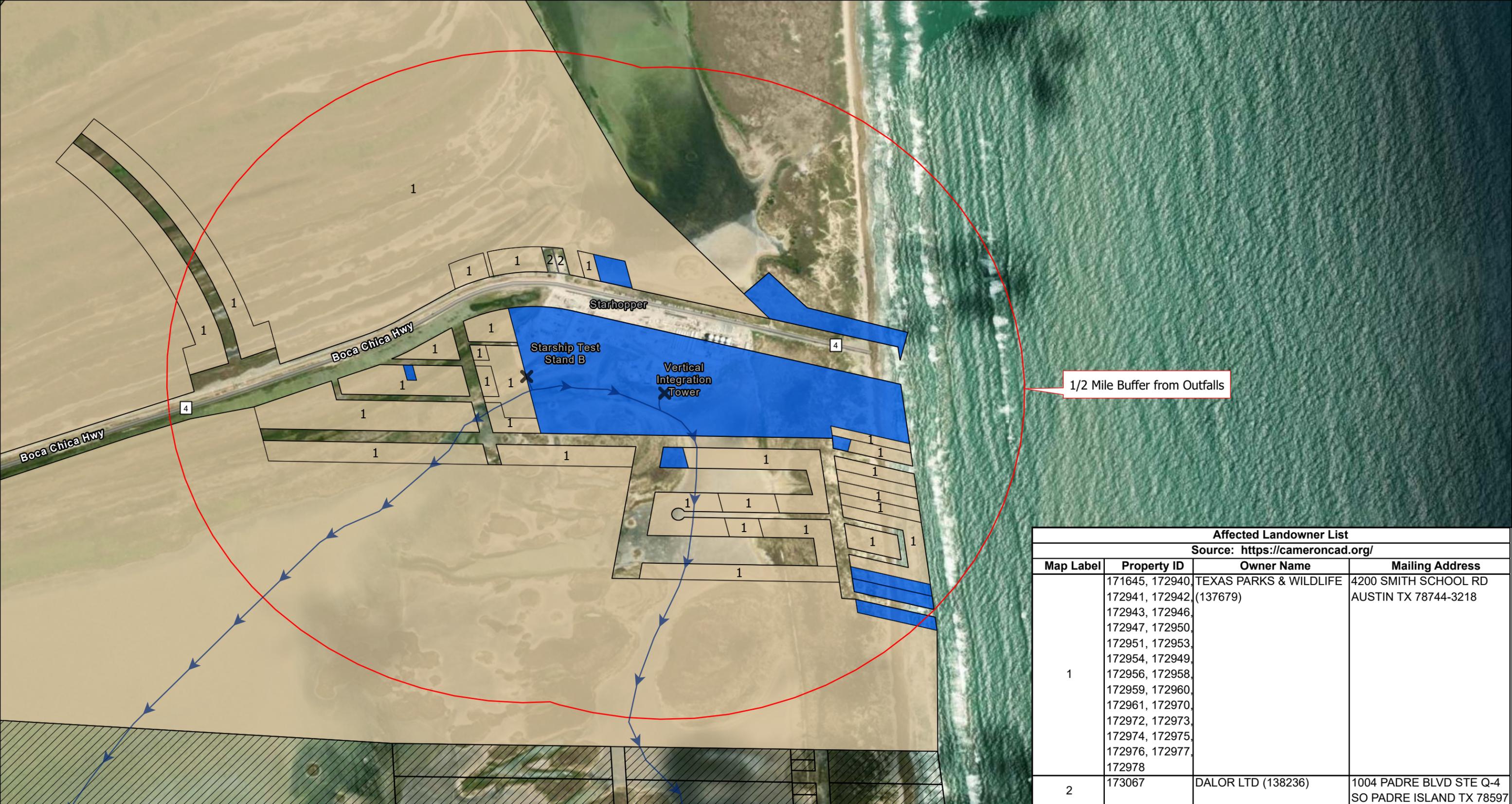
Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey



Affected Landowner List			
Source: https://cameroncad.org/			
Map Label	Property ID	Owner Name	Mailing Address
1	171645, 172940,	TEXAS PARKS & WILDLIFE (137679)	4200 SMITH SCHOOL RD AUSTIN TX 78744-3218
	172941, 172942,		
	172943, 172946,		
	172947, 172950,		
	172951, 172953,		
	172954, 172949,		
	172956, 172958,		
	172959, 172960,		
	172961, 172970,		
	172972, 172973,		
	172974, 172975,		
	172976, 172977,		
	172978		
	2		

SPACEX Launch Pad TPDES Permit - Landowners & Affected Landowners Map

- Outfall Points
- Downstream Flow Line
- 1/2 Mile Buffer from Outfalls
- SpaceX
- Texas Parks & Wildlife
- U.S. Fish & Wildlife Service
- Private

0 500 1,000 US Feet



Affected Landowner ListSource: <https://cameroncad.org/>

Map Label	Property ID	Owner Name	Mailing Address
1	171645, 172940, 172941, 172942, 172943, 172946, 172947, 172950, 172951, 172953, 172954, 172949, 172956, 172958, 172959, 172960, 172961, 172970, 172972, 172973, 172974, 172975, 172976, 172977, 172978	TEXAS PARKS & WILDLIFE (137679)	4200 SMITH SCHOOL RD AUSTIN TX 78744-3218
2	173067	DALOR LTD (138236)	1004 PADRE BLVD STE Q-4 SO PADRE ISLAND TX 78597

TEXAS PARKS & WILDLIFE DEPARTMENT
4200 SMITH SCHOOL RD
AUSTIN TX 78744-3218

DALOR LTD
1004 PADRE BLVD STE Q-4
SOUTH PADRE ISLAND TX 78597-6605

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA

PERMISO PROPUESTO NO. WQ00_____

SOLICITUD. Space Exploration Technologies Corp. ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para el propuesto Permiso No. WQ00_____ (EPA I.D. No. TX _____) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de flujo variable galones por día. La planta está ubicada Starbase Launch Pad Site en el Condado de Cameron County, Texas. La ruta de descarga es del sitio de la planta a desde el sitio de lanzamiento hasta las marismas, de allí a Rio Grande Tital. La TCEQ recibió esta solicitud el 1 de Juliode 2024. La solicitud para el permiso estará disponible para leerla y copiarla en 213 N Yturria St, Port Isabel, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=97.156388,25.996944&level=18> notice

Include the following non-italicized sentence if the facility is located in the Coastal Management Program. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que**

están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envíe por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la **Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087.** Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Space Exploration Technologies Corp. a la dirección indicada arriba o llamando a Sra. Katy Groom al (310) 363-6000.

Fecha de emisión _____ *[Date notice issued]*

Administrative Report

Item 5.a. (page 5)

The telephone number provided for you is "(323) 537-001" which does not have the required number of numeric digits. Elsewhere in the application the telephone number "(323) 537-0071" is provided. Please confirm that "(323) 537-0071" is the correct number for this item.

RESPONSE

"(323) 537-0071" is the correct number for item 5.a. (page 5)

Additionally, the telephone number provided in multiple places in the Administrative Report for Ms. Katy Groom is "(321) 730-1469" however, the telephone number listed for Ms. Katy Groom in the NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT is "310-363-6000." Please confirm which is the correct telephone number to be used for Ms. Groom moving forward in this application process.

RESPONSE

"310-363-6000" is the correct telephone number to be used for Ms. Groom moving forward in this application process.

Technical Report

Item 3. Impoundments (pgs 3-5)

The responses indicate two (2) impoundments for containment use that do not meet any of the specified liner design criteria. Based on our conversation, it is my understanding that these are actually above-ground basins constructed with materials consistent with those used for swimming pools. Please provide additional information that describes the construction specifications for these units.

RESPONSE

Construction specifications: The retention area is an above ground concrete containment with a 224,000 gallon capacity. The bottom of the above ground containment includes a 6 inch concrete slab, on top of 6 inches of limestone, on top of a geogrid. The walls of the above ground retention area are constructed of 6 inch thick concrete slab overlaying an earthen berm.

Item 4. Outfall/Disposal Method Information (pgs 6-8)

The subitems "Outfall Location Description" and "Description of Sampling Point(s) (if different from Outfall location)" on page 6 include narrative descriptions for Outfalls 001 and 002 that are identical with the exception of the latitude and longitude coordinates. Please revise the narrative descriptions so a distinction can be made between the two outfalls without relying on the lat & long coordinates.

The subitem "Outfall Wastestream Contributions" only lists stormwater as a contributing wastestream. Based on other information in the application and previous conversations, it is my understanding that contributing wastestreams should include the following:

Stormwater

Deluge water overspray
Facility washdown water
Water releases from facility tests and maintenance events

Please update the list to include the contributing wastestreams listed above and any additional contributing wastestreams that are anticipated to be present in any discharge via Outfalls 001 and/or 002.

RESPONSE

Updated* see attached

Item 7.b. Domestic Sewage Plant/Hauler Name (pg 10)

It is my understanding that the permit number of the facility that will be accepting domestic wastewater generated at the Starbase launch facility is WQ0016342001. If that is correct, please include this permit number in the response to this question.

RESPONSE

Updated* see attached

Item 12. Cooling Water (pg 12)

It is my understanding that one of the purposes of the deluge water is cooling of the launch vehicle and the launch support structures (including the launch pad) during a launch event. If this is the case, then Item 12.a. should be answered as "yes" instead of "no." Please complete the remainder of Item 12 as directed. Based on our discussions, it is anticipated that subitem 12.c. should include identification of the water supplier(s) for the facility.

RESPONSE

Updated* see attached

Worksheet 2.0

Based on our discussions, it is my understanding that the analytical data provided were the result of sampling conducted after vehicle launch events. Please confirm if this is the case. If you can provide analytical data from two other vehicle launch events, please do so in order to complete the analytical requirements of four (4) separate discharge events. The draft permit may include retest requirements to complete the requirement of Worksheet 2.0.

Please note that a comparison of the data in Worksheet 2.0 and the submitted laboratory reports indicates that reported value for sample 1 for total mercury on Table 2 should be "0.113 µg/L" and not "113 µg/L" as presented.

RESPONSE

The analytical data provided were the result of sampling conducted after vehicle launch and static fire events.

Analytical data from two other vehicle launch events that include TABLE 1, TABLE 2 and TABLE 3 "pollutants" were collected more than 12 months prior to the date of the application submittal. However, analytical data for multi-sector general permit listed heavy metals is available.

Worksheet 2.0 has been updated to reflect the corrected reported value for sample 1 for total mercury "0.113 µg/L" and not "113 µg/L" as presented.

Updated* see attached



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

Item 1. Facility/Site Information (Instructions, Page 39)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

Starbase Launch Pad Site serves as site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicle. Applicable SIC codes include 3761 GUIDED MISSILES AND SPACE VEHICLES.

- b. Describe all wastewater-generating processes at the facility.

Discharge water will consist of minor amounts of deluge water not captured by the containment area during vehicle launch activities, deluge water captured by the containment area in retention pond and stormwater.

¹

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Source water (potable, raw, and Type 1 reclaimed water)		Heat
		Combustion products of liquid oxygen and liquid methane (CO2 and water)

Attachment: N/A

d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: H Facility Map

e. Is this a new permit application for an existing facility?

- Yes No

If **yes**, provide background discussion: Obtain additional permit coverage for deluge discharge.

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

- Yes No

List source(s) used to determine 100-year frequency flood plain: FEMA

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Elevation 10

Attachment: I 100-yr Flood Map

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?
 Yes No N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

Yes No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide an approximate date of application submittal to the USACE: [Click to enter text.](#)

Item 2. Treatment System (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Deluge water would be reused in the deluge system. Sedimentation controls would be utilized to be used/proposed to prepare industrial wastewater for re-use.

b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: [J Water Balance](#)

Item 3. Impoundments (Instructions, Page 40)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

Yes No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a - 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	C	C		
Associated Outfall Number	001	002		
Liner Type (C) (I) (S) or (A)	N	N		
Alt. Liner Attachment Reference	N	N		
Leak Detection System, Y/N	N	N		
Groundwater Monitoring Wells, Y/N	N	N		
Groundwater Monitoring Data Attachment	N	N		
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	N	N		
Length (ft)	180 ft	180 ft		
Width (ft)	45 ft	45 ft		
Max Depth From Water Surface (ft), Not Including Freeboard	4.5 ft	4.5 ft		
Freeboard (ft)	2 ft	2 ft		
Surface Area (acres)	7,500 sq ft	7,500 sq ft		
Storage Capacity (gallons)	273,000 gal	273,000 gal		

Parameter	Pond #	Pond #	Pond #	Pond #
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction	2023	2024		

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

1. Liner data

Yes No Not yet designed

2. Leak detection system or groundwater monitoring data

Yes No Not yet designed

3. Groundwater impacts

Yes No Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: N/A

d. Attach copies of State Water Well Reports (e.g., driller’s logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A

e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. E1 for evaporation pond 1, I2 for irrigation area No. 2, etc.).

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	25.996058	-97.155238
002	25.9961862	-97.1582205

Outfall Location Description

Outfall No.	Location Description
001	From Launch Tower 1 (east) to mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	From Launch Tower 2 (west) to tidal wetlands located immediately outside of the containment area and approximately 100 feet southwest of Launch Tower 2, at the southern edge of the launch pad, approximately 25.9961862, -97.1582205.

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
001	From Launch Tower 1 (east) to mudflats located immediately outside of the containment area and approximately 290 feet southwest of the Launch Tower 1, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	From Launch Tower 2 (west) to tidal wetlands located immediately outside of the containment area and approximately 100 feet southwest of Launch Tower 2, at the southern edge of the launch pad, approximately 25.9961862, -97.1582205.

Outfall Flow Information – Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	Variable	Variable	Variable	Variable	Variable
002	Variable	Variable	Variable	Variable	Variable

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N/A	Y	N/A
002	N/A	Y	N/A

Outfall Discharge - Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	Y	N	N	Variable	Variable	Variable
002	Y	N	N	Variable	Variable	Variable

Outfall Wastestream Contributions

Outfall No. 001

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable
Deluge water	Variable	Variable
Water from routine external washing without chemicals/detergents	Variable	Variable
Water releases from maintenance event	Variable	Variable

Outfall No. 002

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable
Deluge water	Variable	Variable
Water from routine external washing without chemicals/detergents	Variable	Variable

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Water releases from maintenance event	Variable	Variable

Outfall No. [Click to enter text.](#)

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: [Click to enter text.](#)

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

- a. Indicate if the facility currently or proposes to:
- Yes No Use cooling towers that discharge blowdown or other wastestreams
 - Yes No Use boilers that discharge blowdown or other wastestreams
 - Yes No Discharge once-through cooling water

NOTE: If the facility uses or plans to use cooling towers or once-through cooling water, Item 12 **is required.**

- b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.
- Manufacturers Product Identification Number
 - Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
 - Chemical composition including CASRN for each ingredient
 - Classify product as non-persistent, persistent, or bioaccumulative
 - Product or active ingredient half-life

- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: N/A

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

- Yes No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Automotive maintenance

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - Facility is a POTW. Complete Worksheet 5.0.
 - Domestic sewage is not generated on-site.
 - Other (e.g., portable toilets), specify and Complete Item 7.b: Click to enter text.

- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Starbase WWTP	WQ0016342001

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
 Yes No
- b. Has the permittee completed or planned for any improvements or construction projects?
 Yes No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: SpaceX is working closely with the TCEQ and the USEPA to obtain additional expedited permit coverage in order to comply with the terms of an Administrative Order.

Item 9. Toxicity Testing (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

- Yes No

If **yes**, identify the tests and describe their purposes: [Click to enter text.](#)

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** [Click to enter text.](#)

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?
 Yes No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:
- List of wastes received (including volumes, characterization, and capability with on-site wastes).
 - Identify the sources of wastes received (including the legal name and addresses of the generators).

- Description of the relationship of waste source(s) with the facility's activities.

Attachment: [Click to enter text.](#)

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

Yes No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: [Click to enter text.](#)

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

Yes No

If **yes**, **Worksheet 6.0** of this application **is required**.

Item 11. Radioactive Materials (Instructions, Page 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

a. Does the facility use or propose to use water for cooling purposes?

Yes No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

Yes No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	0310001	0310153		
Owner	Public Utilities Board of the City of Brownsville, Texas	Public Utilities Board of the City of Brownsville, Texas		
Operator	Brownsville Public Utility Board	Brownsville PUB Water Hauler		

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

Yes No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. 0310001

3. Cooling water is/will be obtained from a reclaimed water source?

Yes No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: 2E-0000327

4. Cooling water is/will be obtained from an Independent Supplier

Yes No

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed: [Click to enter text.](#)

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

Yes No

2. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

Yes No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

Yes No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: Water is provided does not meet the definition of "Waters of the United States" per 40 CFR 122.2 and 40 CFR 120.2.

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

Yes No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

Yes No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

Yes No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I - New facility subject to 40 CFR Part 125, Subpart I

Yes No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

Track I - AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

- Track I - AIF greater than 10 MGD
 - Attach information required by *40 CFR § 125.86(b)*.
- Track II
 - Attach information required by *40 CFR § 125.86(c)*.

Attachment: [Click to enter text.](#)

2. Phase II - Existing facility subject to 40 CFR Part 125, Subpart J

- Yes No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

3. Phase III - New facility subject to 40 CFR Part 125, Subpart N

- Yes No

If **yes**, check the box next to the compliance track selection and provide the requested information.

- Track I - Fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.
- Track I - Not a fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).
- Track II - Fixed facility
 - Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: [Click to enter text.](#)

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

- Yes No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Click to enter text.

b. Is the facility requesting any **minor amendments** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or

- performing work for another company with a unit located in the same site; or
- performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Katy Groom

Title: Manager of Environmental Regulatory Affairs

Signature: *Katy Groom*

Date: _6/29/24

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

Yes No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information below.

40 CFR Effluent Guideline

Industry	40 CFR Part

Item 2. Production/Process Data (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by 40 CFR Part 414, Appendices A and B.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
N/A			

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

Click to enter text.

Item 3. Process/Non-Process Wastewater Flows (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Wastewater flows generated by the facility include stormwater and deluge water that flows from storage tanks on site through the deluge systems when activated for routine maintenance, fire and dust suppression during launch and test operations. Deluge system discharges would be authorized for discharge under this permit via discharge during the operation and from the retention ponds via discharge valve.

Item 4. New Source Determination (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater Generating Processes Subject to Effluent Guidelines

Process	EPA Guideline Part	EPA Guideline Subpart	Date Process/ Construction Commenced
N/A			

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

Worksheet 2.0 is **required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

Item 1. General Testing Requirements (Instructions, Page 55)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm.
Attachment: [Click to enter text.](#)

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [K SPL Laboratories Data](#)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	8.49	3.56		
CBOD (5-day)	2.08	<2.00		
Chemical oxygen demand	<20.0	<20.0		
Total organic carbon	3.53	3.61		
Dissolved oxygen	NA	7.1		
Ammonia nitrogen	0.121	0.211		
Total suspended solids	7.50	7.10		
Nitrate nitrogen	1.20	1.20		
Total organic nitrogen	<0.050	0.161		
Total phosphorus	0.0241	0.017		
Oil and grease	3.60	<4.60		
Total residual chlorine	0.20	Negative		

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total dissolved solids	950	800		
Sulfate	282	281		
Chloride	182	197		
Fluoride	0.970	1.24		
Total alkalinity (mg/L as CaCO3)	136	106		
Temperature (°F)	28.1	38		
pH (standard units)	6.97	8.6		

Table 2 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	70.2	61.5			2.5
Antimony, total	1.89	1.12			5
Arsenic, total	1.88	0.0169			0.5
Barium, total	94.3	85			3
Beryllium, total	0	0			0.5
Cadmium, total	0.107	0			1
Chromium, total	1.55	0.282			3
Chromium, hexavalent	<3.00	25.9			3
Chromium, trivalent	0	0			N/A
Copper, total	9.49	0.0747			2
Cyanide, available	0	1.02			2/10
Lead, total	0	0			0.5
Mercury, total	0.113	0.139			0.005/0.0005
Nickel, total	6.26	0.0224			2
Selenium, total	2.86	0			5
Silver, total	0	0			0.5
Thallium, total	0	0.616			0.5
Zinc, total	1420	4.3			5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	<1.00	<1.00			50
Anthracene	<0.988	<1.06			10
Benzene	<1.00	<1.00			10
Benzidine	<1.48	<1.60			50
Benzo(a)anthracene	<0.988	<1.06			5
Benzo(a)pyrene	<0.988	<1.06			5
Bis(2-chloroethyl)ether	<0.988	<1.06			10
Bis(2-ethylhexyl)phthalate	<7.41	<7.99			10
Bromodichloromethane [Dichlorobromomethane]	<1.00	<1.00			10
Bromoform	<1.00	<1.00			10
Carbon tetrachloride	<1.00	<1.00			2
Chlorobenzene	<1.00	<1.00			10
Chlorodibromomethane [Dibromochloromethane]	<1.00	<1.00			10
Chloroform	<1.00	<1.00			10
Chrysene	<0.988	<1.06			5
m-Cresol [3-Methylphenol]	<7.91	<8.52			10
o-Cresol [2-Methylphenol]	<9.88	<10.0			10
p-Cresol [4-Methylphenol]	<7.91	<8.52			10
1,2-Dibromoethane	<1.00	<1.00			10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.00	<1.00			10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.00	<1.00			10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.00	<1.00			10
3,3'-Dichlorobenzidine	<1.97	<2.13			5
1,2-Dichloroethane	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.00	<1.00			10
Dichloromethane [Methylene chloride]	<1.02	<1.02			20
1,2-Dichloropropane	<1.00	<1.00			10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.00	<1.00			10
2,4-Dimethylphenol	<0.988	<1.06			10
Di-n-Butyl phthalate	<7.41	<7.99			10
Ethylbenzene	<1.00	<1.00			10
Fluoride	970	1240			500
Hexachlorobenzene	<0.988	<1.06			5
Hexachlorobutadiene	<1.02	<1.10			10
Hexachlorocyclopentadiene	<0.988	<1.06			10
Hexachloroethane	<1.98	<2.13			20
Methyl ethyl ketone	<1.00	<1.00			50
Nitrobenzene	<0.988	<1.06			10
N-Nitrosodiethylamine	<0.988	<1.06			20
N-Nitroso-di-n-butylamine	<0.988	<1.06			20
Nonylphenol	<33.6	<34.8			333
Pentachlorobenzene	<0.988	<1.06			20
Pentachlorophenol	<4.94	<5.00			5
Phenanthrene	<0.988	<1.06			10
Polychlorinated biphenyls (PCBs) (**)	<0.334	<0.197			0.2
Pyridine	<1.33	<1.44			20
1,2,4,5-Tetrachlorobenzene	<1.02	<1.10			20
1,1,2,2-Tetrachloroethane	<1.00	<1.00			10
Tetrachloroethene [Tetrachloroethylene]	<1.00	<1.00			10
Toluene	<1.00	<1.00			10
1,1,1-Trichloroethane	<1.00	<1.00			10
1,1,2-Trichloroethane	<1.00	<1.00			10
Trichloroethene [Trichloroethylene]	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
2,4,5-Trichlorophenol	<4.94	<5.32			50
TTHM (Total trihalomethanes)	0	0			10
Vinyl chloride	<1.00	<1.00			10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a “<”.

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

- Yes No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- Manufacturers and formulators of tributyltin or related compounds.
- Painting of ships, boats and marine structures.
- Ship and boat building and repairing.
- Ship and boat cleaning, salvage, wrecking and scaling.
- Operation and maintenance of marine cargo handling facilities and marinas.
- Facilities engaged in wood preserving.
- Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

- Yes No

Domestic wastewater is/will be discharged.

- Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

Yes No

Domestic wastewater is/will be discharged.

Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

N/A

Table 5 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>					400
Color (PCU)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfite (as SO3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Boron, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Cobalt, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.702	0.199			7
Magnesium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.059	0.0163			0.5
Molybdenum, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					5
Titanium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

Attachment: N/A

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- hexachlorophene (HCP) CASRN 70-30-4
- None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- Yes No

Description: Click to enter text.

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/A

Samples are (check one): Composite Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 is required for all external outfalls as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

Yes No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

Yes No

If yes to either Items a or b, complete Table 13 as instructed.

Table 13 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

This worksheet **is required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

Item 1. Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

- | | |
|--|---|
| <input type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

Item 2. Land Application Area (Instructions, Page 69)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
N/A			

Item 3. Annual Cropping Plan (Instructions, Page 69)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

Attachment:

Item 4. Well and Map Information (Instructions, Page 70)

a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- The exact boundaries of the land application area
- On-site buildings
- Waste-disposal or treatment facilities
- Effluent storage and tailwater control facilities
- Buffer zones
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: N/A

b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
N/A				

Attachment: Click to enter text.

c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

- Yes No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: Click to enter text.

d. Attach a short groundwater technical report using *30 TAC § 309.20(a)(4)* as guidance.

Attachment:

Item 5. Soil Map and Soil Information (Instructions, Page 71)

Check each box to confirm that the following information is attached:

- a. USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
- b. Breakdown of acreage and percent of total acreage for each soil type.
- c. Copies of laboratory soil analyses. **Attachment:** [Click to enter text.](#)

Item 6. Effluent Monitoring Data (Instructions, Page 72)

- a. Completion of Table 14 **is required** for all **renewal** and **major amendment** applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 14 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
N/A							

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)

- b. Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)							
N/A							

- c. Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken. **Attachment:** [Click to enter text.](#)

Item 7. Pollutant Analysis (Instructions, Page 72)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Tables 15 and 16.

Table 15 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	8.49	3.56		
CBOD (5-day)	2.05	<2.00		
Chemical oxygen demand	<20.0	<20.0		
Total organic carbon	3.53	3.61		
Dissolved oxygen	NA	7.1		
Ammonia nitrogen	121	211		
Total suspended solids	7.50	7.10		
Nitrate nitrogen	1.20	1.20		
Total organic nitrogen	50	0.161		
Total phosphorus	0.0241	170		
Oil and grease	3.60	<4.60		
Total residual chlorine	0.20	Negative		
Total dissolved solids	950	800		
Sulfate	2820	281		
Chloride	1820	197		
Fluoride	970	1.24		
Total alkalinity (mg/L as CaCO ₃)	136	106		
Temperature (°F)	28.1	38		
pH (standard units)	6.97	8.6		

Table 16 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	70.2	6.15			2.5
Antimony, total	1.89	1.12			5
Arsenic, total	1.88	0.0169			0.5
Barium, total	94.3	85			3

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Beryllium, total	0	0			0.5
Cadmium, total	0.107	0			1
Chromium, total	1.55	0.000282			3
Chromium, hexavalent	0	25.9			3
Chromium, trivalent	0	0			N/A
Copper, total	9.49	0.0747			2
Cyanide, available	0	3.4			2/10
Lead, total	0	0			0.5
Mercury, total	<0.113	139			0.005/0.0005
Nickel, total	6.26	0.0224			2
Selenium, total	28.6	0			5
Silver, total	0	0			0.5
Thallium, total	0	0.616			0.5
Zinc, total	1420	4.3			5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

This worksheet **is required** for all applications for a permit to disposal of wastewater by surface land application or evaporation.

Item 1. Edwards Aquifer (Instructions, Page 73)

a. Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

- Yes No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b and 1.c.

b. Check the box next to the subchapter applicable to the facility.

- 30 TAC Chapter 213, Subchapter A
 30 TAC Chapter 213, Subchapter B

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) **or** 2) a report that contains the following:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

Item 2. Surface Spray/Irrigation (Instructions, Page 73)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): N/A

Design application rate (acre-ft/acre/yr): N/A

Design application frequency (hours/day): N/A

Design application frequency (days/week): N/A

Design total nitrogen loading rate (lbs nitrogen/acre/year): N/A

Average slope of the application area (percent): N/A

Maximum slope of the application area (percent): N/A

Irrigation efficiency (percent): N/A

Effluent conductivity (mmhos/cm): N/A

Soil conductivity (mmhos/cm): N/A

Curve number: N/A

Describe the application method and equipment: N/A

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** N/A

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: N/A gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** N/A

Item 4. Evapotranspiration Beds (Instructions, Page 74)

- a. Provide the following information on the evapotranspiration beds:
- Number of beds: N/A
 - Area of bed(s) (acres): N/A
 - Depth of bed(s) (feet): N/A
 - Void ratio of soil in the beds: N/A
 - Storage volume within the beds (include units): N/A
 - Description of any lining to protect groundwater: N/A
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** N/A
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** N/A

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
- Area used for application (acres): N/A
 - Slopes for application area (percent): N/A
 - Design application rate (gpm/foot of slope width): N/A
 - Slope length (feet): N/A
 - Design BOD5 loading rate (lbs BOD5/acre/day): N/A
 - Design application frequency (hours/day): N/A
 - Design application frequency (days/week): N/A
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.2: SUBSURFACE IRRIGATION (NON-DRIP)

This worksheet **is required** for all applications for a permit to disposal of wastewater by subsurface land application.

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 75)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?
- Yes No
- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?
- Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Subsurface Application (Instructions, Page 75)

- a. Check the box next to the type of subsurface land disposal system requested:
- Conventional drainfield, beds, or trenches
- Low pressure dosing
- Other: [Click to enter text.](#)
- b. Provide the following information on the irrigation operations:
- Application area (acres): [Click to enter text.](#)
- Area of drainfield (square feet): [Click to enter text.](#)
- Application rate (gal/square ft/day): [Click to enter text.](#)
- Depth to groundwater (feet): [Click to enter text.](#)
- Area of trench (square feet): [Click to enter text.](#)
- Dosing duration per area (hours): [Click to enter text.](#)
- Number of beds: [Click to enter text.](#)
- Dosing amount per area (inches/day): [Click to enter text.](#)
- Soil infiltration rate (inches/hour): [Click to enter text.](#)
- Storage volume (gallons): [Click to enter text.](#)
- Area of bed(s) (square feet): [Click to enter text.](#)
- Soil classification: [Click to enter text.](#)
- c. Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

This worksheet **is required** for all applications for a permit to dispose of wastewater using a subsurface area drip dispersal system (SADDS).

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 76)

a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?

- Yes No

b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?

- Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Administrative Information (Instructions, Page 76)

a. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility: N/A

b. The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.

- Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located:

Click to enter text.

c. Provide the legal name of the owner of the SADDS: Click to enter text.

d. The owner of the SADDS is the same as the owner of the WWTF or the site where the WWTF is/will be located.

- Yes No

If **no**, identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c: Click to enter text.

e. Provide the legal name of the owner of the land where the SADDS is located: Click to enter text.

f. The owner of the land where the SADDs is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDs.

Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e: [Click to enter text.](#)

Item 3. SADDs (Instructions, Page 77)

a. Check the box next to the type SADDs requested by this application:

Subsurface drip/trickle irrigation

Surface drip irrigation

Other: [Click to enter text.](#)

b. Attach a description of the SADDs proposed/used by the facility (see instructions for guidance). **Attachment:** [Click to enter text.](#)

c. Provide the following information on the SADDs:

Application area (acres): [Click to enter text.](#)

Soil infiltration rate (inches/hour): [Click to enter text.](#)

Average slope of the application area: [Click to enter text.](#)

Maximum slope of the application area: [Click to enter text.](#)

Storage volume (gallons): [Click to enter text.](#)

Major soil series: [Click to enter text.](#)

Depth to groundwater (feet): [Click to enter text.](#)

Effluent conductivity (mmhos/cm): [Click to enter text.](#)

d. The facility is/will be located west of the boundary shown in *30 TAC § 222.83* **and** using a vegetative cover of non-native grasses over seeded with cool-season grasses.

Yes No

If **yes**, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft²/day.

e. The facility is/will be located east of the boundary shown in *30 TAC § 222.83* **or** is the facility proposing any crop other than non-native grasses.

Yes No

If **yes**, the facility must use the formula in *30 TAC § 222.83* to calculate the maximum hydraulic application rate.

f. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

Yes No

If **yes**, provide the following information on the hydraulic application rates:

- Hydraulic application rate (gal/square foot/day): [Click to enter text.](#)
- Nitrogen application rate (gal/square foot/day): [Click to enter text.](#)

g. Provide the following dosing information:

Number of doses per day: [Click to enter text.](#)

Dosing duration per area (hours): [Click to enter text.](#)

Rest period between doses (hours): [Click to enter text.](#)

Dosing amount per area (inches/day): [Click to enter text.](#)

Number of zones: [Click to enter text.](#)

h. The system is/will be a surface drip irrigation system using existing native vegetation as a crop?

Yes No

If **yes**, attach the following information:

- A vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species.

Attachment: [Click to enter text.](#)

- Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

Attachment: [Click to enter text.](#)

Item 4. Required Plans (Instructions, Page 78)

a. Attach a Soil Evaluation with all information required in *30 TAC § 222.73*.

Attachment: [Click to enter text.](#)

b. Attach a Site Preparation Plan with all information required in *30 TAC § 222.75*.

Attachment: [Click to enter text.](#)

c. Attach a Recharge Feature Plan with all information required in *30 TAC § 222.79*.

Attachment: [Click to enter text.](#)

d. Provide soil sampling and testing with all information required in *30 TAC § 222.157*.

Attachment: [Click to enter text.](#)

Item 5. Flood and Run-On Protection (Instructions, Page 79)

a. Is the existing/proposed SADDs located within the 100-year frequency flood level?

Yes No

Source: [Click to enter text.](#)

If **yes**, describe how the site will be protected from inundation: [Click to enter text.](#)

b. Is the existing/proposed SADDs within a designated floodway?

- Yes No

If **yes**, attach either the FEMA flood map or alternate information used to make this determination. **Attachment:** [Click to enter text.](#)

Item 6. Surface Waters in The State (Instructions, Page 79)

a. Attach a buffer map which shows the appropriate buffers on surface waters in the state, water wells, and springs/seeps. **Attachment:** [Click to enter text.](#)

b. The facility has or plans to request a buffer variance from water wells or waters in the state?

- Yes No

If **yes**, attach the additional information required in *30 TAC § 222.81(c)*. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is **required** for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

Yes No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: [Click to enter text.](#)
2. The distance and direction from the outfall to the drinking water supply intake: [Click to enter text.](#)

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

Check this box to confirm the above requested information is provided.

Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: [Click to enter text.](#)

- c. Are there sea grasses within the vicinity of the point of discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: [Click to enter text.](#)

Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

Yes No

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

- a. Name of the immediate receiving waters: Mudflats
- b. Check the appropriate description of the immediate receiving waters:
- Lake or Pond
 - Surface area (acres): Click to enter text.
 - Average depth of the entire water body (feet): Click to enter text.
 - Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.
 - Man-Made Channel or Ditch
 - Stream or Creek
 - Freshwater Swamp or Marsh
 - Tidal Stream, Bayou, or Marsh
 - Open Bay
 - Other, specify:

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c - 4.g below:

- c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- Intermittent (dry for at least one week during most years)
- Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- USGS flow records
- personal observation
- historical observation by adjacent landowner(s)
- other, specify: Click to enter text.

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Rio Grande River
- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).
- Yes
 - No

If **yes**, describe how: [Click to enter text.](#)

f. General observations of the water body during normal dry weather conditions: [dry mudflats](#)

Date and time of observation: [year round](#)

g. The water body was influenced by stormwater runoff during observations.

Yes No

If **yes**, describe how: [Click to enter text.](#)

Item 5. General Characteristics of Water Body (Instructions, Page 81)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> oil field activities | <input checked="" type="checkbox"/> urban runoff |
| <input checked="" type="checkbox"/> agricultural runoff | <input type="checkbox"/> septic tanks |
| <input checked="" type="checkbox"/> upstream discharges | <input type="checkbox"/> other, specify: Click to enter text. |

b. Uses of water body observed or evidence of such uses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> livestock watering | <input type="checkbox"/> industrial water supply |
| <input checked="" type="checkbox"/> non-contact recreation | <input type="checkbox"/> irrigation withdrawal |
| <input type="checkbox"/> domestic water supply | <input type="checkbox"/> navigation |
| <input type="checkbox"/> contact recreation | <input type="checkbox"/> picnic/park activities |
| <input type="checkbox"/> fishing | <input type="checkbox"/> other, specify: Click to enter text. |

c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

- Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional
- Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored
- Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid
- Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS

The following information **is required** for new applications, EPA-designated Major facilities, and major amendment applications requesting to add an outfall if the receiving waters are perennial or intermittent with perennial pools (including impoundments) for a TDPEs permit.

Complete the transects downstream of the existing or proposed discharges.

Item 1. Data Collection (Instructions, Page 82)

- a. Date of study: N/A Time of study: Click to enter text.
 Waterbody name: Click to enter text.
 General location: Click to enter text.
- b. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):
 perennial intermittent with perennial pools impoundment
- c. No. of defined stream bends:
 Well: Click to enter text. Moderately: Click to enter text. Poorly: Click to enter text.
- d. No. of riffles: Click to enter text.
- e. Evidence of flow fluctuations (check one):
 Minor Moderate Severe
- f. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: Click to enter text.
- g. Complete the following table with information regarding the transect measurements.

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**								
N/A											

* riffle, run, glide, or pool
 ** channel bed to water surface

Item 2. Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): N/A

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): N/A

Length of stream evaluated (ft): N/A

Number of lateral transects made: N/A

Average stream width (ft): N/A

Average stream depth (ft): N/A

Average stream velocity (ft/sec): N/A

Instantaneous stream flow (ft³/sec): N/A

Indicate flow measurement method (VERY IMPORTANT - type of meter, floating chip timed over a fixed distance, etc.): N/A

Flow fluctuations (i.e., minor, moderate, or severe): N/A

Size of pools (i.e., large, small, moderate, or none): N/A

Maximum pool depth (ft): N/A

Total number of stream bends: N/A

 Number well defined: N/A

 Number moderately defined: N/A

 Number poorly defined: N/A

Total number of riffles: N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

a. Is this a new permit application or an amendment permit application?

Yes No

b. Does or will the facility discharge in the Lake Houston watershed?

Yes No

If **yes** to either Item 1.a or 1.b, attach a solids management plan. **Attachment:** N/A

Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

- Permitted landfill
- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Registered land application site, attach Form TCEQ-00565
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Transported to another WWTP
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

Attachment: [Click to enter text.](#)

b. Provide the following information for each disposal site:

Disposal site name: Starbase WWTP/Space Exploration Technologies (sludge hauler)

TCEQ Permit/Registration Number: 2#0000327/Sludge Id No. 26143

County where disposal site is located: Hidalgo

c. Method of sewage sludge transportation:

truck train pipe other: [Click to enter text.](#)

TCEQ Hauler Registration Number: 26143

d. Sludge is transported as a:

liquid semi-liquid semi-solid solid

e. Purpose of land application: reclamation soil conditioning N/A

f. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

Attachment: [Click to enter text.](#)

Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

Attachment: N/A

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit.** New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following information is **required** for all applications for publicly-owned treatment works (POTWs).

For an explanation of the terms used in this worksheet, refer to the General Definitions on pages 4-12 and the Definitions Relating to Pretreatment on pages 13-14 of the Instructions.

Item 1. All POTWs (Instructions, Page 86)

- a. Complete the following table with the number of each type of industrial users (IUs) that discharge to the POTW and the daily average flows from each.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)
CIU	N/A	
SIU - Non-categorical		
Other IU		

- b. In the past three years, has the POTW experienced treatment plant interference?

Yes No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference: [Click to enter text.](#)

- c. In the past three years, has the POTW experienced pass-through?

Yes No

If **yes**, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass-through event. Include the names of the IU(s) that may have caused the pass-through: [Click to enter text.](#)

- d. Does the POTW have, or is it required to develop, an approved pretreatment program?

Yes No

If **yes**, answer all questions in Item 2 and skip Item 3.

If **no**, skip Item 2 and answer all questions in Item 3 for each SIU and CIU.

Item 2. POTWs With Approved Pretreatment Programs or Those Required To Develop A Pretreatment Program (Instructions, Page 86)

- a. Have there been any substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ) for approval according to *40 CFR § 403.18*?

Yes No

If **yes**, include an attachment which identifies all substantial modifications that have not been submitted to the TCEQ and the purpose of the modifications.

Attachment: [Click to enter text.](#)

- b. Have there been any non-substantial modifications to the POTW’s approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

Yes No

If **yes**, include an attachment which identifies all non-substantial modifications that have not been submitted to the TCEQ and the purpose of the modification.

Attachment: [Click to enter text.](#)

- c. List all parameters measured above the MAL in the POTW’s effluent monitoring during the last three years:

Effluent Parameters Measured Above the MAL

Pollutant	Concentration	MAL	Units	Date

Attachment: [Click to enter text.](#)

- d. Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass-through) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems: [Click to enter text.](#)

Item 3. Significant Industrial User and Categorical Industrial User Information (Instructions, Pages 88-87)

POTWs that **do not** have an approved pretreatment program **are required** to provide the following information for each SIU and CIU:

- a. Mr. or Ms.: [Click to enter text.](#) First/Last Name: [Click to enter text.](#)

Organization Name: [Click to enter text.](#) SIC Code: [Click to enter text.](#)

Phone number: [Click to enter text.](#) Email address: [Click to enter text.](#)

Physical Address: [Click to enter text.](#) City/State/ZIP Code: [Click to enter text.](#)

Attachment: [Click to enter text.](#)

- b. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (e.g., process and non-process wastewater): [Click to enter text.](#)

c. Provide a description of the principal products(s) or service(s) performed: [Click to enter text.](#)

d. Flow rate information

Flow Rate Information

Effluent Type	Discharge Day (gallons per day)	Discharge Frequency (Continuous, batch, or intermittent)
Process Wastewater		
Non-process Wastewater		

e. Pretreatment Standards

1. Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

Yes No

2. Is the SIU subject to categorical pretreatment standards?

Yes No

If **yes**, provide the category and subcategory or subcategories in the SIUs Subject To Categorical Pretreatment Standards table.

SIUs Subject to Categorical Pretreatment Standards

Category in 40 CFR	Subcategory in 40 CFR			

f. Has the SIU or CIU caused or contributed to any problem(s) (e.g., interferences, pass through, odors, corrosion, blockages) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

Yes No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
004	<input checked="" type="checkbox"/> Current	<input checked="" type="checkbox"/> Proposed
012	<input checked="" type="checkbox"/> Current	<input checked="" type="checkbox"/> Proposed
	<input type="checkbox"/>	<input type="checkbox"/>

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, **proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility’s boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

Check the box to confirm all above information was provided on the facility site map(s).

Attachment: [E Site Map](#)

Item 4. Facility/Site Information (Instructions, Page 90)

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
001	7,500 sq ft	7,500 sq ft
002	7,500 sq ft	7,500 sq ft

b. Provide the following local area rainfall information and the source of the information.

Wettest month: September

Average rainfall for wettest month (total inches): 7 inches

25-year, 24-hour rainfall (inches): 9.04

Source: NOAA

c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** F Materials List

d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** F Materials List

e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: Velocity and sediment controls

Item 5. Pollutant Analysis (Instructions, Page 91)

a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 11/01/2023-12/31/2023

b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.

c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: 001

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	NA	—	(min)	—		—
Total suspended solids	NA					—
Chemical oxygen demand	NA					—
Total organic carbon	NA					—
Oil and grease	NA					—
Arsenic, total	0.0107					0.0005
Barium, total	0.102					0.003
Cadmium, total	0.00241					0.001
Chromium, total	0.0613					0.003
Chromium, trivalent	NA					—
Chromium, hexavalent	NA					0.003
Copper, total	0.0101					0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total	0.00308					0.0005
Mercury, total	<0.113					0.000005
Nickel, total	0.00599					0.002
Selenium, total	0.00298					0.005
Silver, total	<0.0000628					0.0005
Zinc, total	0.0574					0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

Attachment: [Click to enter text.](#)

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: 12/14/2023

Duration of storm event (minutes): approximately 1 hr

Total rainfall during storm event (inches): 0.04 in

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): >72 hrs

Maximum flow rate during rain event (gallons/minute): Variable

Total stormwater flow from rain event (gallons): Variable

Provide a description of the method of flow measurement or estimate:

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 8.0: AQUACULTURE

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges of aquaculture wastewater.

Item 1. Facility/Site Information (Instructions, Page 94)

- a. Complete the following table with information regarding production ponds, raceways, and fabricated tanks at the facility.

Production Pond Descriptions

Number of Ponds	Dimensions (include units)	Area of Each Pond (include units)	Number of Ponds x Area of Ponds (include Units)
N/A			

Total surface area of all ponds: [Click to enter text.](#)

Raceway Descriptions

Number of Raceways	Dimensions (include units)

Fabricated Tank Descriptions

Number of Tanks	Dimensions (include units)

b. Does the facility have a TPWD-approved emergency plan?

- Yes No

If **yes**, attach a copy of the approved plan.

Attachment: [Click to enter text.](#)

c. Does the facility have an aquatic plant transplant authorization?

- Yes No

If **yes**, attach a copy of the authorization letter.

Attachment: [Click to enter text.](#)

d. Provide the number of aquaculture facilities located within 25-miles of this facility: [Click to enter text.](#)

Item 2. Species Identification (Instructions, Page 95)

Complete the following table regarding each species raised, source, origin, and disease status of the stock. Identify and attach copies of any current relevant authorizations or permits that authorize the species.

Stock Species Information

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

Attachment: [Click to enter text.](#)

Item 3. Stock Management Plan (Instructions, Page 95)

Attach a detailed stock management plan: [Click to enter text.](#)

Item 4. Water Treatment and Discharge Description (Instructions, Page 96)

Attach a detailed description of the discharge practices and water treatment process(es): [Click to enter text.](#)

Item 5. Solid Waste Management (Instructions, Page 96)

Attach a description of the solid waste-disposal practices: [Click to enter text.](#)

Item 6. Site Assessment Report (Instructions, Page 96)

All new and expanding commercial shrimp facilities located/to be located within the coastal zone must attach a detailed site assessment report which identifies sensitive aquatic habitats within the coastal zone: [Click to enter text.](#)

WORKSHEET 9.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only

Reg. No. _____

Date Received _____

Date Authorized _____

Item 1. General Information (Instructions Page 99)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): [Click to enter text.](#)

Program ID: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

2. Agent/Consultant Contact Information

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

3. Owner/Operator Contact Information

Owner Operator

Owner/Operator Name: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

4. Facility Contact Information

Facility Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Location description (if no address is available): [Click to enter text.](#)

Facility Contact Person: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

5. Latitude and Longitude, in degrees-minutes-seconds

Latitude: [Click to enter text.](#)

Longitude: [Click to enter text.](#)

Method of determination (GPS, TOPO, etc.): [Click to enter text.](#)

Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- Vertical Injection
- Subsurface Fluid Distribution System
- Infiltration Gallery
- Temporary Injection Points
- Other, Specify: [Click to enter text.](#)

Number of Injection Wells: [Click to enter text.](#)

7. Purpose

Detailed Description regarding purpose of Injection System:

[Click to enter text.](#)

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

License Number: [Click to enter text.](#)

Item 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Center	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Item 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: [Click to enter text.](#)

System(s) Construction: [Click to enter text.](#)

Item 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: [Click to enter text.](#)

2. Receiving Formation Name of Injection Zone: [Click to enter text.](#)

3. Well/Trench Total Depth: [Click to enter text.](#)

4. Surface Elevation: [Click to enter text.](#)

5. Depth to Ground Water: [Click to enter text.](#)

6. Injection Zone Depth: [Click to enter text.](#)

7. Injection Zone vertically isolated geologically? Yes No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: [Click to enter text.](#)

Thickness: [Click to enter text.](#)

8. Attach a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.

9. Attach the Horizontal and Vertical extent of contamination and injection plume as Attachment F.

10. Attach Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc., as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection. Attach as Attachment H.

12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: [Click to enter text.](#)

13. Maximum injection Rate/Volume/Pressure: [Click to enter text.](#)

14. Water wells within 1/4 mile radius (attach map as Attachment I): [Click to enter text.](#)

15. Injection wells within 1/4 mile radius (attach map as Attachment J): [Click to enter text.](#)

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): [Click to enter text.](#)

17. Sampling frequency: [Click to enter text.](#)

18. Known hazardous components in injection fluid: [Click to enter text.](#)

Item 5. Site History

1. Type of Facility: [Click to enter text.](#)
2. Contamination Dates: [Click to enter text.](#)
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations. Attach as Attachment L.
4. Previous Remediation. Attach results of any previous remediation as Attachment M.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Item 6. CLASS V INJECTION WELL DESIGNATIONS

- 5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Stormwater Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTPP disposal
- 5W20 Industrial Process Waste-disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X27 Other Wells
- 5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

This worksheet **is required** for all applications for individual permits for a municipal solid waste facility or mining facility located within a Water Quality Protection Area in the John Graves Scenic Riverway. **Note: Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.**

Item 1. Exclusions (Instructions, Page 100)

- a. Is this a municipal solid waste facility?
 Yes No
- b. Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?
 Yes No
- c. Is this a coal mine?
 Yes No
- d. Is this facility mining clay and/or shale for use in manufacturing structural clay products?
 Yes No

If **yes** to **any** above question, **stop here**. The facility is required to maintain documentation, as outlined in *30 TAC § 311.72(c)*, at the facility to demonstrate the exclusion(s).

Item 2. Location of the Quarry (Instructions, Page 101)

Check the box next to the distance between the quarry and the nearest navigable water body:

- < 200 feet 200 feet - 1,500 feet 1,500 feet - 1 mile > 1 mile

NOTE: The construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a Water Quality Protection Area in the John Graves Scenic Riverway.

Item 3. Additional Requirements (Instructions, Page 101)

Use the table in the Instructions to determine if additional application requirements apply to the facility based on distance between the quarry and the nearest waterway. Attach as appropriate or enter N/A.

- a. Attach a Restoration Plan: [Click to enter text.](#)
- b. Amount of Financial Assurance for Restoration: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)
- c. Attach a Technical Demonstration: [Click to enter text.](#)
- d. Attach a Reclamation Plan: [Click to enter text.](#)
- e. Amount of Financial Assurance for Reclamation: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.0: COOLING WATER SYSTEM INFORMATION

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12.

Item 1. Cooling Water System Data (Instructions, Page 104)

a. Complete the following table with information regarding the cooling water system.

Cooling Water System Data

Parameter	Volume (include units)
Total DIF	
Total AIF	
Intake Flow Use(s) (%)	
Contact cooling	
Non-contact cooling	
Process Wastewater	
Other	

b. Attach the following information:

1. A narrative description of the design and annual operation of the facility's cooling water system and its relationship to the CWIS(s).
2. A scaled map depicting the location of each CWIS, impoundment, intake pipe, and canals, pipes, or waterways used to convey cooling water to, or within, the cooling water system. Provide the latitude and longitude for each CWIS and any intake pipe(s) on the map. Indicate the position of the intake pipe within the water column.
3. A description of water reuse activities, if applicable, reductions in total water withdrawals, if applicable, and the proportion of the source waterbody withdrawn (on a monthly basis).
4. Design and engineering calculations prepared by a qualified professional and data to support the information provided in above item a.
5. Previous year (a minimum of 12 months) of AIF data.
6. A narrative description of existing or proposed impingement and entrainment technologies or operation measures and a summary of their performance, including, but not limited to, reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

Attachment: [Click to enter text.](#)

Item 2. Cooling Water Intake Structure(s) Data (Instructions, Page 105)

- a. Complete the following table with information regarding each cooling water intake structure (this includes primary and make-up CWIS(s)).

Cooling Water Intake Structure(s) Data

CWIS ID				
DIF (include units)				
AIF (include units)				
Intake Flow Use(s) (%)				
Contact cooling				
Non-contact cooling				
Process Wastewater				
Other				
Latitude (decimal degrees)				
Longitude (decimal degrees)				

- b. Attach the following information regarding the CWIS(s):
1. A narrative description of the configuration of each CWIS, annual and daily operation, including any seasonal changes, and where it is located in the water body and in the water column.
 2. Engineering calculations for each CWIS.

Attachment: [Click to enter text.](#)

Item 3. Source Water Physical Data (Instructions, Page 105)

- a. Complete the following table with information regarding the CWIS(s) source waterbody (this includes primary and make-up CWIS(s)).

Source Waterbody Data

CWIS ID				
Source Waterbody				
Mean Annual Flow				
Source				

- b. Attach the following information regarding the source waterbody.
1. A narrative description of the source water for each CWIS, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports this determination of the water body type where each cooling water intake structure is located.

2. A narrative description of the source waterbody's hydrological and geomorphological features.
3. Scaled drawings showing the physical configuration of all source water bodies used by the facility, including the source waterbody's hydrological and geomorphological features. **NOTE:** The source waterbody's hydrological and geomorphological features may be included on the map submitted for item 1.b.ii of this worksheet.
4. A description of the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies.

Attachment: [Click to enter text.](#)

Item 4. Operational Status (Instructions, Page 106)

a. Is this application for a power production or steam generation facility?

Yes No

If **no**, proceed to Item 4.b. If **yes**, provide the following information as an attachment:

1. Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation.
2. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment.
3. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months).
4. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type.

Attachment: [Click to enter text.](#)

b. Process Units

1. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)?

Yes No

If **no**, proceed to Item 4.c. If **yes**, continue.

2. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of *40 CFR § 125.94(c)*?

Yes No

If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information:

- Individual production processes and product lines
- The operating status, including age of each line and seasonal operation
- Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors

- Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines.

Attachment: [Click to enter text.](#)

c. Is this an application for a nuclear power production facility?

Yes No

If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility.

Attachment: [Click to enter text.](#)

d. Is this an application for a manufacturing facility?

Yes No

If **no**, proceed to Worksheet 11.1. If **yes**, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.1: IMPINGEMENT MORTALITY

This worksheet is **required** for all TPDES permit applications that meet the conditions outlined in **Technical Report 1.0, Item 12**. Complete one copy of this worksheet for each individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Impingement Compliance Technology Selection (Instructions, Page 107)

Check the box next to the method of compliance for the Impingement Mortality Standard selected by the facility.

- Closed-cycle recirculating system (CCRS) [40 CFR § 125.94(c)(1)]
- 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] - Proceed to Worksheet 11.2
- 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]
- Existing offshore velocity cap [40 CFR § 125.94(c)(4)] - Proceed to Worksheet 11.2
- Modified traveling screens [40 CFR § 125.94(c)(5)]
- System of technologies [40 CFR § 125.94(c)(6)]
- Impingement mortality performance standard [40 CFR § 125.94(c)(7)]
- De minimis rate of impingement [40 CFR § 125.94(c)(11)]
- Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

If 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] or existing offshore velocity cap [40 CFR § 125.94(c)(4)] was selected, proceed to Worksheet 11.2. Otherwise, continue to Item 2.

Item 2. Impingement Compliance Technology Information (Instructions, Page 107)

Complete the following sections based on the selection made for item 1 above.

a. CCRS [40 CFR § 125.94(c)(1)]

- Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.

1. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

- Yes No

If **no**, proceed to item a.2. If **yes**, provide the following information as an attachment and continue.

- CWIS ID
- 12 months of intake flow data for any CWIS used for make-up intake flows to replenish cooling water losses, excluding intakes for losses due to blowdown, drift, or evaporation.

- A narrative description of any physical or operational measures taken to minimize make-up withdraws.

Attachment: [Click to enter text.](#)

NOTE: Do not complete a separate Worksheet 11.1 for a make-up CWIS.

2. Does the facility use or propose to use cooling towers?

- Yes No

If **no**, proceed to Worksheet 11.2. If **yes**, provide the following information and proceed to Worksheet 11.2.

- Average number of cycles of concentration (COCs) prior to blowdown:

Average COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Attach COC monitoring data for each cooling tower from the previous year (a minimum of 12 months): [Click to enter text.](#)
- Maximum number of COCs each cooling tower can accomplish based on design of the system.

Calculated COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Describe conditions that may limit the number of COCs prior to blowdown, if any, including but not limited to permit conditions: [Click to enter text.](#)

b. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

Provide daily intake flow measurement monitoring data from the previous year (a minimum of 12 months) as an attachment and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

c. Modified traveling screens [40 CFR § 125.94(c)(5)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the modified traveling screens and associated equipment.
2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

d. System of technologies [40 CFR § 125.94(c)(6)] or impingement mortality performance standard [40 CFR § 125.94(c)(7)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the system of technologies used or proposed for use by the facility to

achieve compliance with the impingement mortality standard.

2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods.
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

- e. De minimis rate of impingement [*40 CFR § 125.94(c)(11)*]

Provide the following information and proceed to Worksheet 11.2.

1. Attach monitoring data from the previous year (a minimum of 12 months) of intake flow measured at a frequency of 1/day on days of operation.

Attachment: [Click to enter text.](#)

2. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.6. to support this determination.

Attachment: [Click to enter text.](#)

- f. Low capacity utilization power-generation facilities [*40 CFR § 125.94(c)(12)*]

Attach monthly utilization data from the previous 2 years (a minimum of 24 months) for each operating unit and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.2: SOURCE WATER BIOLOGICAL DATA

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** source waterbody of a CWIS for which a facility has selected an Impingement Mortality Technology Option described at *40 CFR §§ 125.94(c)(1)-(7)*.

Name of source waterbody: [Click to enter text.](#)

Item 1. Species Management (Instructions, Page 109)

- a. The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.

Yes No

If yes, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph *40 CFR § 125.95(f)*.

Attachment: [Click to enter text.](#)

- b. Is the facility requesting a waiver from application requirements at *40 CFR § 122.21(r)(4)* in accordance with *40 CFR § 125.95* for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?

Yes No

If **yes**, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.

Attachment: [Click to enter text.](#)

- c. There are no federally listed threatened or endangered species or critical habitat designations within the source water body.

True False

Item 2. Source Water Biological Data (Instructions, Page 109)

New Facilities (Phase I, Track I and II)

- Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

- If the answer to **1.b.** above was **no**, provide responses to all items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **true**, do not complete any items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **false**, attach a response for any item in this section that is not contained within the most recent TPWD, or equivalent and proceed to Worksheet 11.3.

Attachment: [Click to enter text.](#)

- a. A list of the data requested at *40 CFR § 122.21(r)(4)(ii)* through *(vi)* that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at *40 CFR § 125.92(m)*, at the facility. The applicant need only identify those species not already identified as fragile at *40 CFR § 125.92(m)*.

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.3: ENTRAINMENT

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Applicability (Instructions, Page 111)

Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?

Yes No

- If **no** or the facility has selected **CCRS** [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here.
- If **yes** and the facility is **seeking a waiver** from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop.
- If **yes** and the facility is **not seeking a waiver** from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.

Item 2. Existing Entrainment Performance Studies (Instructions, Page 111)

Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.

Attachment: [Click to enter text.](#)

Item 3. Facility Entrainment Performance Studies (Instructions, Page 111)

- a. Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): [Click to enter text.](#)
- b. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): [Click to enter text.](#)
- c. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): [Click to enter text.](#)
- d. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): [Click to enter text.](#)
- e. Attach a peer review analysis, as described as 40 CFR § 122.21(r)(13): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 12.0: OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES

This worksheet **is required** for all TPDES permit applications that are subject to Effluent Limitation Guidelines in 40 CFR Part 435.

Item 1. Operational Information (Instructions, Page 112)

- a. Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?

Yes No

If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.

- b. Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.

Click to enter text.

Item 2. Production/Process Data (Instructions, Page 112)

- a. Provide the applicable 40 CFR Part 435 Subpart(s).

Click to enter text.

- b. Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

Click to enter text.

- c. Provide information on all waste-streams generated and specify which waste-streams you are requesting to be authorized for discharge.

Wastestreams Generated

Wastestream	Requesting authorization to discharge? (Yes/No)	Volume (MGD)	% of Total Flow

- d. Describe how the facility will manage wastestreams for which discharge authorization is not being sought.

[Click to enter text.](#)

Attachment: [Click to enter text.](#)

- e. Provide information on miscellaneous discharges.

[Click to enter text.](#)

Attachment: [Click to enter text.](#)

- f. List of chemicals that are in use, or will be used, downhole. Provide the category, concentration used/to be used, and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

Attachment: [Click to enter text.](#)

- g. List of chemicals that are in use, or will be used, to treat the wastewater to be discharged under this authorization. Provide the concentration used/to be used and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Water Treatment Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

Attachment: [Click to enter text.](#)

Item 3. Pollutant Analysis (Instructions, Page 113)

Tables 1, 2, 6, and 7 located in Worksheet 2.0 are required. In addition, Table 19 below is required and must be completed for each outfall and submitted with this application. The remaining tables in Worksheet 2.0, are required as applicable.

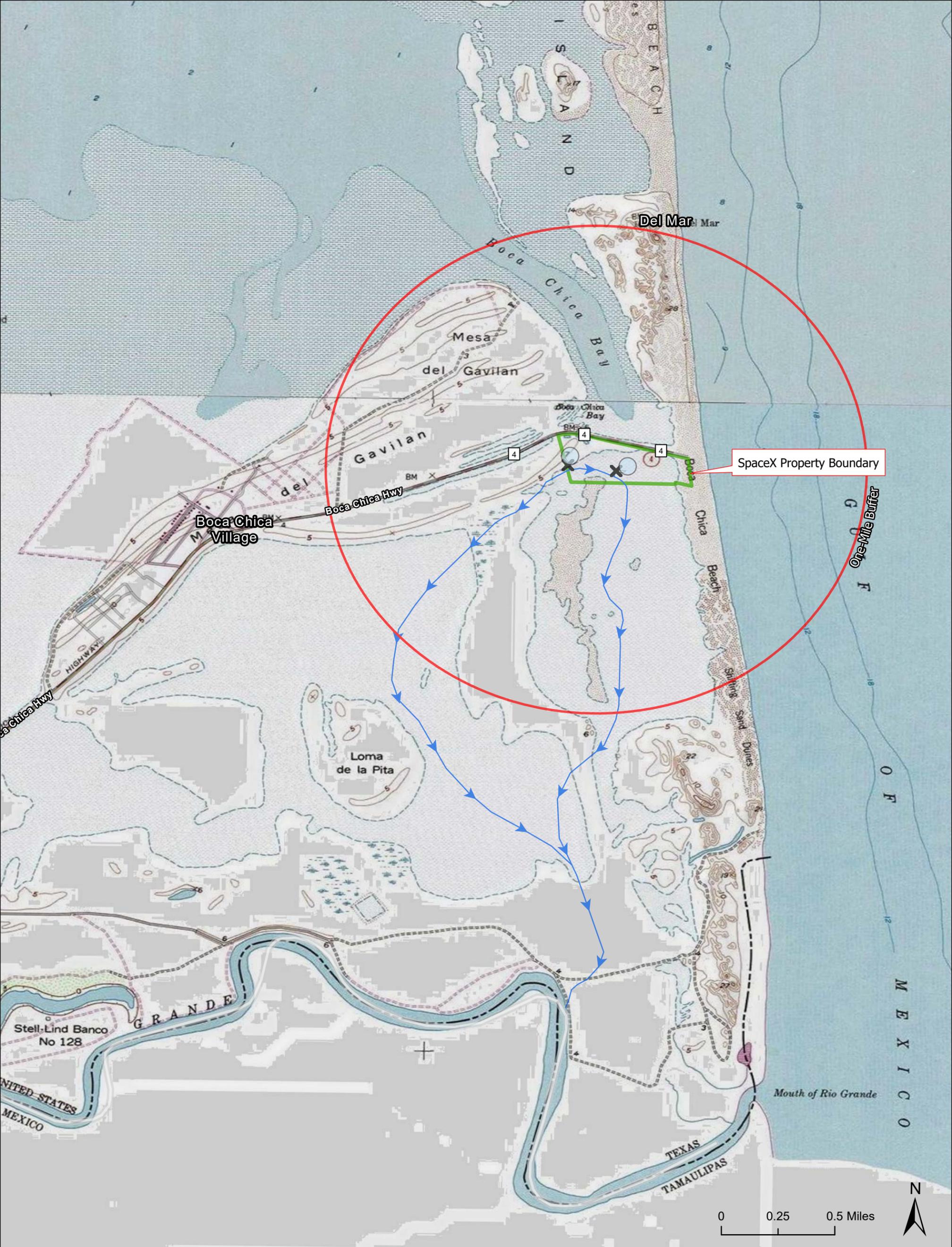
- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** [Click to enter text.](#)
- d. Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [Click to enter text.](#)

Table 19 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)*	Sample 2 (mg/L)*	Sample 3 (mg/L)*	Sample 4 (mg/L)*
Calcium				
Potassium				
Sodium				

*Indicate units if different from mg/L.

Attachment D

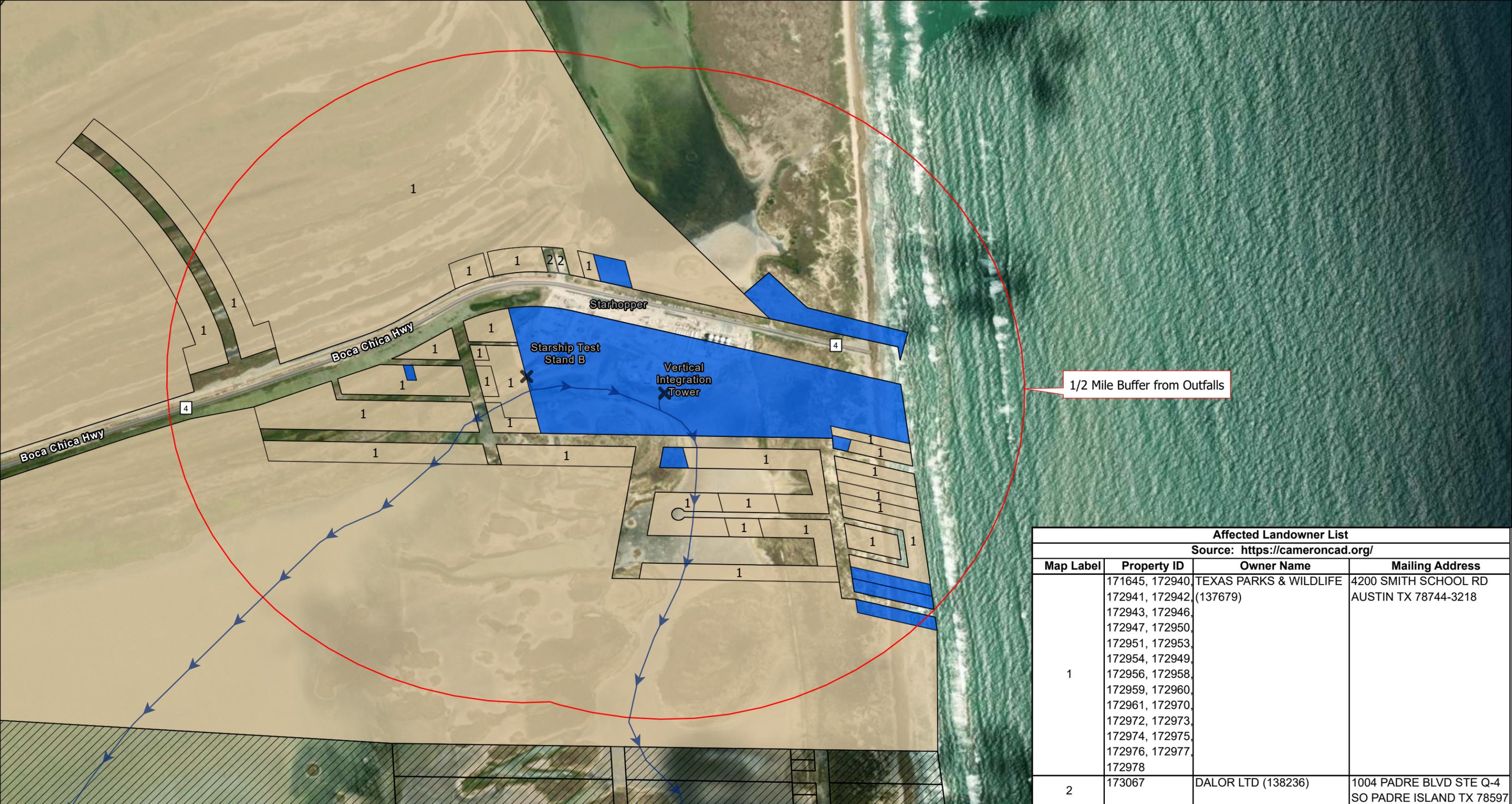


SPACEX Launch Pad TPDES Permit
USGS Topographic Map

- SpaceX Property Boundary
- One-Mile Buffer
- Approximate Water Dispersal Limit
- ✕ Outfall & Sampling
- ➔ Downstream Flow



Attachment E



Affected Landowner List			
Source: https://cameroncad.org/			
Map Label	Property ID	Owner Name	Mailing Address
1	171645, 172940,	TEXAS PARKS & WILDLIFE (137679)	4200 SMITH SCHOOL RD AUSTIN TX 78744-3218
	172941, 172942,		
	172943, 172946,		
	172947, 172950,		
	172951, 172953,		
	172954, 172949,		
	172956, 172958,		
	172959, 172960,		
	172961, 172970,		
	172972, 172973,		
	172974, 172975,		
	172976, 172977,		
	172978		
	2		

SPACEX Launch Pad TPDES Permit - Landowners & Affected Landowners Map

- Outfall Points
- Downstream Flow Line
- 1/2 Mile Buffer from Outfalls
- SpaceX
- Texas Parks & Wildlife
- U.S. Fish & Wildlife Service
- Private

0 500 1,000 US Feet

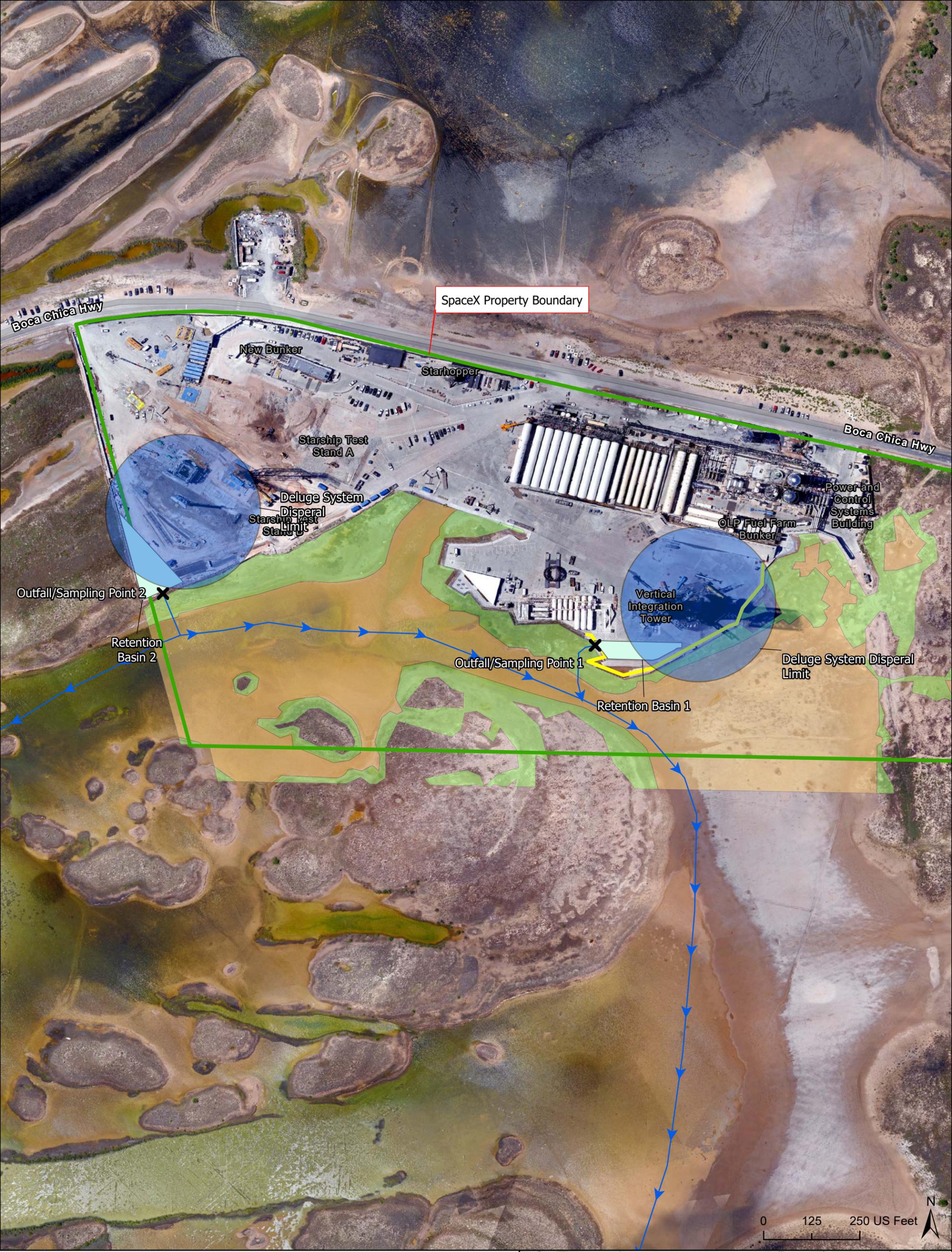


Attachment F

Affected Landowner ListSource: <https://cameroncad.org/>

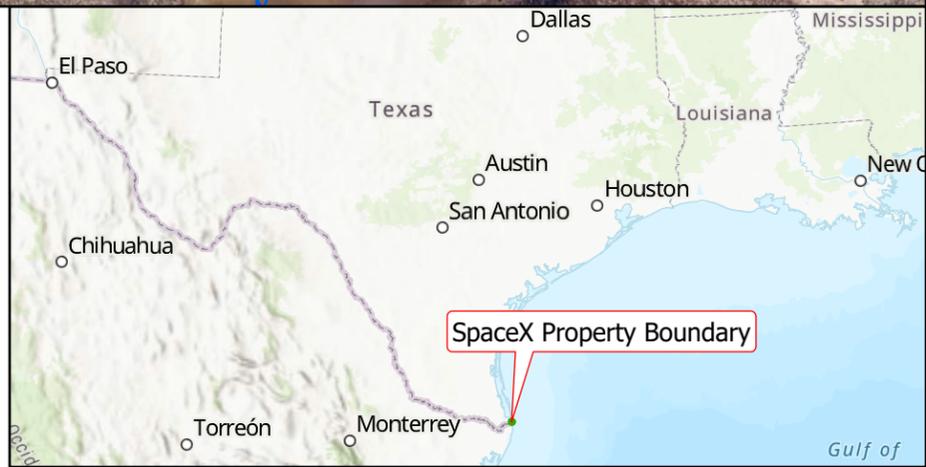
Map Label	Property ID	Owner Name	Mailing Address
1	171645, 172940, 172941, 172942, 172943, 172946, 172947, 172950, 172951, 172953, 172954, 172949, 172956, 172958, 172959, 172960, 172961, 172970, 172972, 172973, 172974, 172975, 172976, 172977, 172978	TEXAS PARKS & WILDLIFE (137679)	4200 SMITH SCHOOL RD AUSTIN TX 78744-3218
2	173067	DALOR LTD (138236)	1004 PADRE BLVD STE Q-4 SO PADRE ISLAND TX 78597

Attachment G



SPACEX Launch Pad TPDES Permit Site Map

- SpaceX Property Boundary
- Approximate Maximum Water Dispersal Limit
- Retention Basin
- Outfall & Sampling Point
- Downstream Flow
- Concrete Curbing
- Unvegetated Mud Flats
- High Marsh

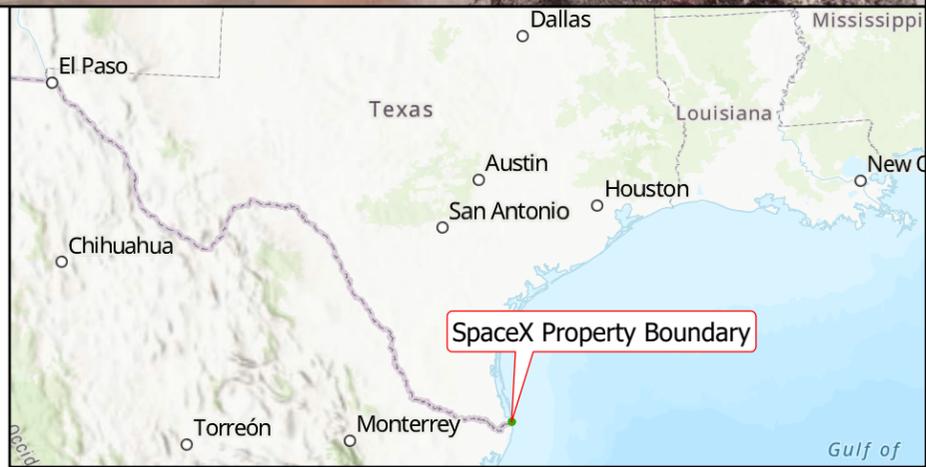


Attachment H



SPACEX Launch Pad TPDES Permit Facility Map

- SpaceX Property Boundary
 - Retention Basin
 - Approximate Maximum Water Dispersal Limit
 - X Outfall & Sampling Point
 - Downstream Flow
 - Concrete Curbing
- 0 250 500 US Feet



Attachment I

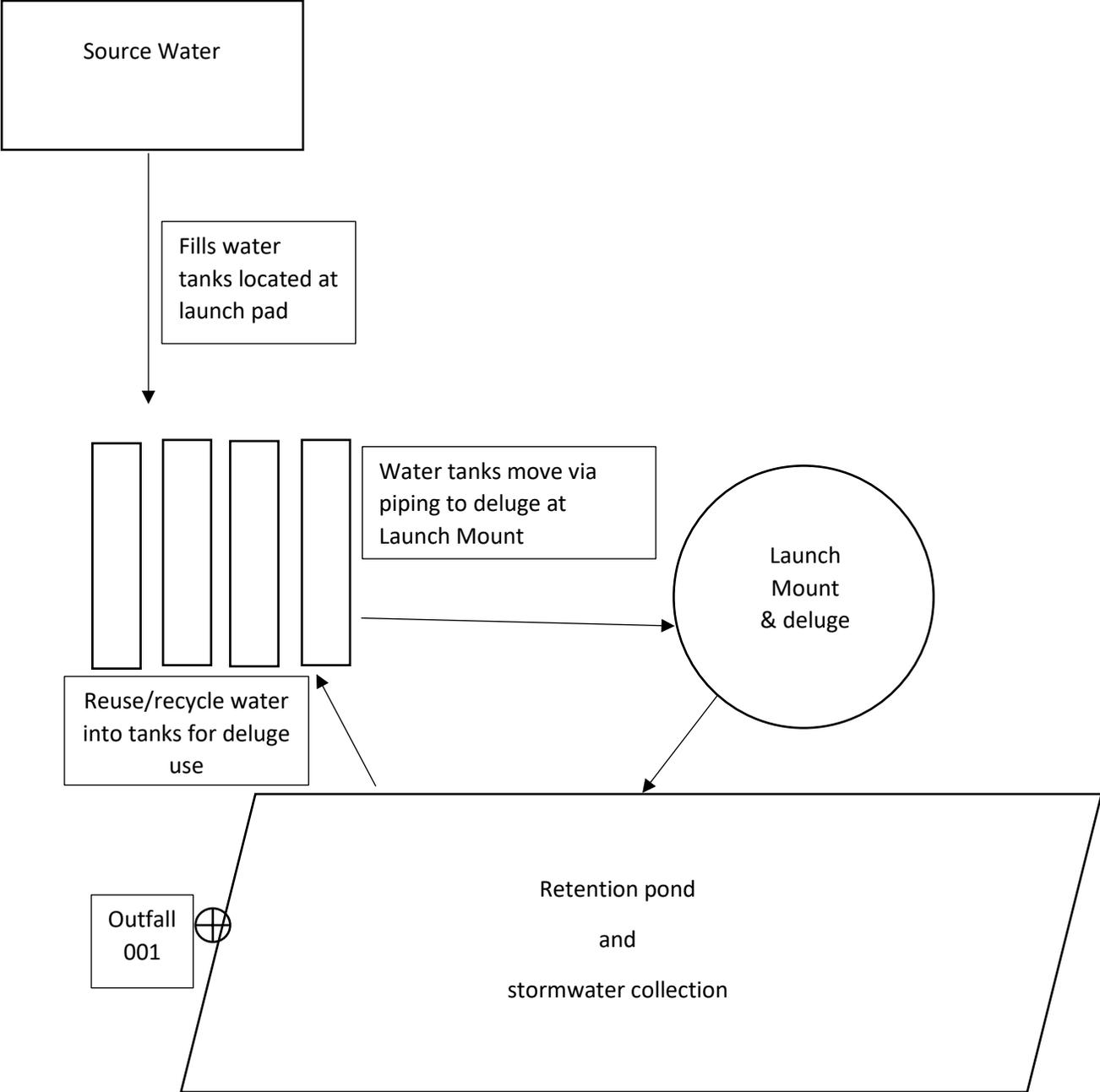


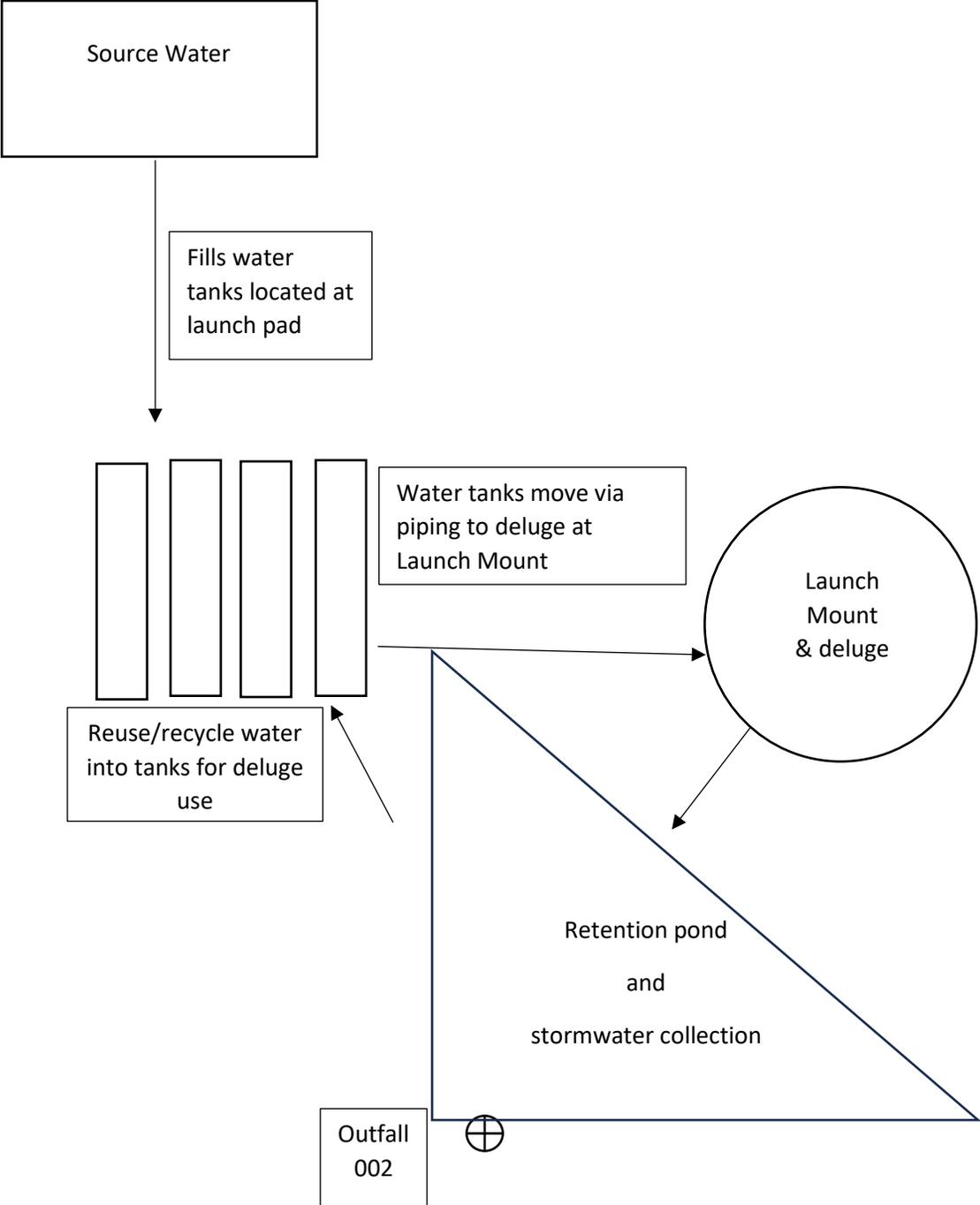
USDA, USGS The National Map: Orthoimagery. Data refreshed June, 2024.

Powered by Esri

<p>PIN</p> <ul style="list-style-type: none"> Approximate location based on user input and does not represent an authoritative property location 	<p>SPECIAL FLOOD HAZARD AREAS</p> <ul style="list-style-type: none"> Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Regulatory Floodway Zone AE, AO, AH, VE, AR 	<p>OTHER AREAS OF FLOOD HAZARD</p> <ul style="list-style-type: none"> 0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D
<p>MAP PANELS</p> <ul style="list-style-type: none"> NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D Otherwise Protected Area 	<p>OTHER AREAS</p> <ul style="list-style-type: none"> Coastal Barrier Resource System Area 	<p>CROSS SECTIONS</p> <ul style="list-style-type: none"> Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary <p>OTHER FEATURES</p> <ul style="list-style-type: none"> Coastal Transect Baseline Profile Baseline Hydrographic Feature <p>GENERAL STRUCTURES</p> <ul style="list-style-type: none"> Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall

Attachment J





Attachment K

Project
1105141

SPAC-R

SPACE X
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Printed 06/26/2024
13:37

TABLE OF CONTENTS

Retention Pond

This report consists of this Table of Contents and the following pages:

<u>Report Name</u>	<u>Description</u>	<u>Pages</u>
1105141_r02_01_ProjectSamples	SPL Kilgore Project P:1105141 C:SPAC Project Sample Cross Reference t:304	17
1105141_r03_03_ProjectResults	SPL Kilgore Project P:1105141 C:SPAC Project Results t:304 PO: 2605353	12
1105141_r10_05_ProjectQC	SPL Kilgore Project P:1105141 C:SPAC Project Quality Control Groups	32
1105141_r99_09_CoC__1_of_1	SPL Kilgore CoC SPAC 1105141_1_of_1	9
Total Pages:		70



SAMPLE CROSS REFERENCE

Project
1105141

Printed 6/26/2024 Page 1 of 17

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
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- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
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- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
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- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	35	1121972	06/03/2024	1122623	06/06/2024
EPA 300.0 2.1	01	1121871	05/31/2024	1121871	05/31/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE CROSS REFERENCE

Project
1105141

Printed 6/26/2024 Page 2 of 17

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1122502	06/05/2024	1122502	06/05/2024
EPA 625.1	34	1121954	06/03/2024	1124511	06/17/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE CROSS REFERENCE

Project
1105141

Printed 6/26/2024 Page 3 of 17

SPACEX
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- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	04	1121678	05/30/2024	1121678	05/30/2024
EPA 624.1	07	1121680	05/30/2024	1121680	05/30/2024

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SAMPLE CROSS REFERENCE

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
ASTM D7065-11	36	1122298	06/05/2024	1122871	06/06/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1122038	06/03/2024

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SPACEX
 Rodolfo Longoria
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.7 4.4	30	1121672	05/31/2024	1123498	06/12/2024
EPA 245.1 3	31	1121865	06/03/2024	1121966	06/03/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1123699	06/12/2024
EPA 200.8 5.4	30	1121672	05/31/2024	1123260	06/10/2024

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SPACEX
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	30	1121672	05/31/2024	1122450	06/06/2024
SM 2320 B-2011	18	1122797	06/07/2024	1122797	06/07/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5210 B-2016	01	1121636	06/05/2024	1121636	06/05/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1121637	06/05/2024	1121637	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016			06/04/2024		06/04/2024
SM 4500-CN ⁻ G-2016	29	1121666	05/31/2024	1122125	06/04/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ E-2016	23	1121649	05/31/2024	1122121	06/04/2024
SM 5220 D-2011	13	1121775	05/31/2024	1121775	05/31/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/06/2024		06/06/2024
SM 3500-Cr B-2011	19	1122575	06/05/2024	1122575	06/05/2024

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SPACEX
 Rodolfo Longoria
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 3500-Cr B-2011		1121254	05/29/2024	1121254	05/29/2024
EPA 1664B (HEM)	08	1122457	06/05/2024	1122457	06/05/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	20	1121581	05/30/2024	1122206	06/04/2024
EPA 351.2 minus EPA 350.1			06/05/2024		06/05/2024

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SPACEX
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 C-2015	11	1122168	06/03/2024	1122168	06/03/2024
EPA 351.2.2	28	1121658	05/31/2024	1122132	06/04/2024

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	15	1122326	06/05/2024	1122326	06/05/2024
SM 4500-P E-2011	13	1121996	06/03/2024	1121996	06/03/2024

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SPACEX
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 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 D-2015	11	1121687	05/30/2024	1121687	05/30/2024
SM 2130 B-2011	11	1123697	06/11/2024	1123697	06/11/2024

Email: Kilgore.ProjectManagement@spllabs.com

SAMPLE CROSS REFERENCE

Project
1105141

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SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2302895	RETENTION POND	05/29/2024	18:30:00	05/30/2024

- Bottle 01 Amber 32 Oz
- Bottle 02 Amber 32 Oz
- Bottle 03 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 04 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 05 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 06 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 07 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 08 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 09 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 10 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 11 Polyethylene 1/2 gal (White)
- Bottle 12 16 oz HNO3 Metals Plastic
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 16 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 17 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 18 Plastic 1 liter unpreserved
- Bottle 19 Cr+6 Preserved 250 Polyethylene
- Bottle 20 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1121581) Volume: 6.00000 mL <== Derived from 13 (6 ml)
- Bottle 21 BOD Titration Beaker A (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 22 BOD Analytical Beaker B (Batch 1121637) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 24 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 25 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121649) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1121636) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1121658) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1121666) Volume: 10.00000 mL <== Derived from 17 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1121672) Volume: 50.00000 mL <== Derived from 12 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 32 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 33 Prepared Bottle: Mercury Preparation for Metals (Batch 1121865) Volume: 50.00000 mL <== Derived from 12 (25 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1121954) Volume: 1.00000 mL <== Derived from 02 (1012 ml)
- Bottle 35 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1121972) Volume: 10.00000 mL <== Derived from 01 (605 ml)
- Bottle 36 Prepared Bottle: 2 mL Autosampler Vial (Batch 1122298) Volume: 1.00000 mL <== Derived from 09 (892 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-H+ B-2011		1121148	05/28/2024	1121148	05/28/2024

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SPAC-R

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Retention Pond

RESULTS

Sample Results

2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

Prepared: 06/19/2024 14:37:00 Analyzed 06/19/2024 14:37:00 WJP

Parameter	Results	Units	RL	Flags	CAS	Bottle
Check Limits	Completed					

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Nonyphenol	<33.6	ug/L	33.6		25154-52-3	36

Calculation Prepared: 06/06/2024 14:32:29 Calculated 06/06/2024 14:32:29 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Trivalent Chromium	<0.003	mg/L	0.003		16065-83-1	

Client Prepared: 1121027 05/28/2024 03:56:00 Analyzed 1121027 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cl2 Res(Total) Analyzed by client	0.20	mg/L				

EPA 1664B (HEM) Prepared: 1122457 06/05/2024 10:00:00 Analyzed 1122457 06/05/2024 10:00:00 MAX

Parameter	Results	Units	RL	Flags	CAS	Bottle
Oil and Grease (HEM)	3.60	mg/L	4.49	J		08

EPA 200.7 4.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123498 06/12/2024 10:21:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Calcium	83.3	mg/L	0.500		7440-70-2	30
Iron, Total	0.702	mg/L	0.007		7439-89-6	30



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122038 06/03/2024 12:30:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.0702	mg/L	0.00171		7429-90-5	30
NELAC Arsenic, Total	0.00188	mg/L	0.0005		7440-38-2	30
NELAC Barium, Total	0.0943	mg/L	0.001		7440-39-3	30
NELAC Beryllium, Total	<0.000139	mg/L	0.000139		7440-41-7	30
NELAC Cadmium, Total	0.000107	mg/L	0.001	J	7440-43-9	30
NELAC Chromium, Total	0.00155	mg/L	0.001		7440-47-3	30
NELAC Copper, Total	0.00949	mg/L	0.00155		7440-50-8	30
NELAC Lead, Total	<0.000244	mg/L	0.000244		7439-92-1	30
NELAC Nickel, Total	0.00626	mg/L	0.00112		7440-02-0	30
NELAC Silver, Total	<0.000226	mg/L	0.000226		7440-22-4	30
NELAC Thallium, Total	<0.000106	mg/L	0.000106		7440-28-0	30
NELAC Zinc, Total	1.42	mg/L	0.001		7440-66-6	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1122450 06/06/2024 02:19:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Selenium, Total	0.00286	mg/L	0.002		7782-49-2	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123260 06/10/2024 21:41:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00189	mg/L	0.003	J	7440-36-0	30

EPA 200.8 5.4 Prepared: 1121672 05/31/2024 08:00:00 Analyzed 1123699 06/12/2024 08:56:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Manganese, Total	0.059	mg/L	0.0005		7439-96-5	30

EPA 245.1 3 Prepared: 1121865 06/03/2024 10:30:00 Analyzed 1121966 06/03/2024 13:29:00 KB1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	<0.113	ug/L	0.113		7439-97-6	31

EPA 300.0 2.1 Prepared: 1121871 05/31/2024 13:17:00 Analyzed 1121871 05/31/2024 13:17:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	182	mg/L	3.00			01
NELAC Fluoride	0.970	mg/L	0.500	J		01



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 300.0 2.1		Prepared: 1121871 05/31/2024 13:17:00		Analyzed 1121871 05/31/2024 13:17:00		NAZ
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.100		14797-55-8	01
EPA 300.0 2.1		Prepared: 1122502 06/05/2024 13:36:00		Analyzed 1122502 06/05/2024 13:36:00		NAZ
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Sulfate	282	mg/L	30.0			01
EPA 350.1 2		Prepared: 1121581 05/30/2024 15:18:42		Analyzed 1122206 06/04/2024 07:02:00		AMB
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Ammonia Nitrogen	0.121	mg/L	0.020			20
EPA 351.2 2		Prepared: 1121658 05/31/2024 08:22:52		Analyzed 1122132 06/04/2024 08:23:00		AMB
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Kjeldahl Nitrogen	0.064	mg/L	0.050		7727-37-9	28
EPA 351.2 minus EPA 350.1		Prepared: 06/05/2024 08:55:57		Calculated 06/05/2024 08:55:57		CAL
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrogen, Total Organic (as N)	<0.050	mg/L	0.050			
EPA 608.3		Prepared: 1121972 06/03/2024 14:30:00		Analyzed 1122623 06/06/2024 01:55:00		KAP
Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<0.334	ug/L	0.334	X	12674-11-2	35
NELAC PCB-1221	<0.331	ug/L	0.331		11104-28-2	35
NELAC PCB-1232	<0.331	ug/L	0.331		11141-16-5	35
NELAC PCB-1242	<0.331	ug/L	0.331		53469-21-9	35
NELAC PCB-1248	<0.331	ug/L	0.331		12672-29-6	35
NELAC PCB-1254	<0.331	ug/L	0.331		11097-69-1	35
NELAC PCB-1260	<0.331	ug/L	0.331		11096-82-5	35
NELAC PCB-1262	<0.331	ug/L	0.331		37324-23-5	35
NELAC PCB-1268	<0.331	ug/L	0.331		11100-14-4	35



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121678 05/30/2024 17:55:00 Analyzed 1121678 05/30/2024 17:55:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Acrolein	<4.00	ug/L	4.00	X	107-02-8	04
NELAC Acrylonitrile	<1.00	ug/L	1.00		107-13-1	04

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	07
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	07
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	07
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	07
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	07
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	07
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	07
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	07
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	07
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	07
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	07
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	07
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	07
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	07
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	07
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	07
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	07
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	07
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	07
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	07
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	07
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	07
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	07
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	07
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	07
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	07
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	07
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	07
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	07
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	07
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	07



SPAC-R

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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 624.1 Prepared: 1121680 05/30/2024 19:47:00 Analyzed 1121680 05/30/2024 19:47:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	07

EPA 624.1 Prepared: 1121680 05/31/2024 12:46:07 Calculated 1121680 05/31/2024 12:46:07 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			07

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2,4,5-Tetrachlorobenzene	<1.02	ug/L	1.02	X	95-94-3	34
NELAC 1,2,4-Trichlorobenzene	<0.988	ug/L	0.988		120-82-1	34
NELAC 1,2-Dichlorobenzene	<4.94	ug/L	4.94		95-50-1	34
NELAC 1,2-DPH (as azobenzene)	<0.988	ug/L	0.988		122-66-7	34
NELAC 1,3-Dichlorobenzene	<4.94	ug/L	4.94	X	541-73-1	34
NELAC 1,4-Dichlorobenzene	<4.94	ug/L	4.94	X	106-46-7	34
NELAC 2,4,5-Trichlorophenol	<4.94	ug/L	4.94		95-95-4	34
NELAC 2,4,6-Trichlorophenol	<1.98	ug/L	1.98		88-06-2	34
NELAC 2,4-Dichlorophenol	<0.988	ug/L	0.988		120-83-2	34
NELAC 2,4-Dimethylphenol	<0.988	ug/L	0.988	S	105-67-9	34
NELAC 2,4-Dinitrophenol	<1.98	ug/L	1.98		51-28-5	34
NELAC 2,4-Dinitrotoluene	<1.98	ug/L	1.98		121-14-2	34
NELAC 2,6-Dinitrotoluene	<1.98	ug/L	1.98		606-20-2	34
NELAC 2-Chloronaphthalene	<0.988	ug/L	0.988		91-58-7	34
NELAC 2-Chlorophenol	<0.988	ug/L	0.988		95-57-8	34
NELAC 2-Methylphenol (o-Cresol)	<9.88	ug/L	9.88		95-48-7	34
NELAC 2-Nitrophenol	<0.988	ug/L	0.988		88-75-5	34
NELAC 3&4-Methylphenol (m&p-Cresol)	<7.91	ug/L	7.91		MEPH34	34
NELAC 3,3'-Dichlorobenzidine	<1.98	ug/L	1.98		91-94-1	34
NELAC 4,6-Dinitro-2-methylphenol	<1.98	ug/L	1.98		534-52-1	34
NELAC 4-Bromophenyl phenyl ether	<0.988	ug/L	0.988		101-55-3	34
NELAC 4-Chlorophenyl phenyl ethe	<0.988	ug/L	0.988		7005-72-3	34
NELAC 4-Nitrophenol	<0.988	ug/L	0.988		100-02-7	34
NELAC Acenaphthene	<0.988	ug/L	0.988		83-32-9	34
NELAC Acenaphthylene	<0.988	ug/L	0.988		208-96-8	34
z Aniline	<2.44	ug/L	2.44	S	62-53-3	34



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water

Collected by: Client
 Taken: 05/29/2024

SPACE X
 18:30:00

PO: 2605353

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Anthracene	<0.988	ug/L	0.988		120-12-7	34
NELAC Benzidine	<1.48	ug/L	1.48		92-87-5	34
NELAC Benzo(a)anthracene	<0.988	ug/L	0.988		56-55-3	34
NELAC Benzo(a)pyrene	<0.988	ug/L	0.988		50-32-8	34
NELAC Benzo(b)fluoranthene	<0.988	ug/L	0.988		205-99-2	34
NELAC Benzo(ghi)perylene	<0.988	ug/L	0.988		191-24-2	34
NELAC Benzo(k)fluoranthene	<0.988	ug/L	0.988		207-08-9	34
NELAC Benzyl Butyl phthalate	<7.41	ug/L	7.41		85-68-7	34
NELAC Bis(2-chloroethoxy)methane	<0.988	ug/L	0.988		111-91-1	34
NELAC Bis(2-chloroethyl)ether	<0.988	ug/L	0.988		111-44-4	34
NELAC Bis(2-chloroisopropyl)ether	<0.988	ug/L	0.988		108-60-1	34
NELAC Bis(2-ethylhexyl)phthalate	<7.41	ug/L	7.41		117-81-7	34
NELAC Chrysene (Benzo(a)phenanthrene)	<0.988	ug/L	0.988		218-01-9	34
NELAC Dibenz(a,h)anthracene	<0.988	ug/L	0.988		53-70-3	34
NELAC Diethyl phthalate	<5.63	ug/L	5.63		84-66-2	34
NELAC Dimethyl phthalate	<4.74	ug/L	4.74		131-11-3	34
NELAC Di-n-butylphthalate	<7.41	ug/L	7.41		84-74-2	34
NELAC Di-n-octylphthalate	<1.98	ug/L	1.98		117-84-0	34
NELAC Fluoranthene(Benzo(j,k)fluorene)	<0.988	ug/L	0.988		206-44-0	34
NELAC Fluorene	<0.988	ug/L	0.988		86-73-7	34
NELAC Hexachlorobenzene	<0.988	ug/L	0.988		118-74-1	34
NELAC Hexachlorobutadiene	<1.02	ug/L	1.02		87-68-3	34
NELAC Hexachlorocyclopentadiene	<0.988	ug/L	0.988		77-47-4	34
NELAC Hexachloroethane	<1.98	ug/L	1.98		67-72-1	34
NELAC Indeno(1,2,3-cd)pyrene	<0.988	ug/L	0.988		193-39-5	34
NELAC Isophorone	<0.988	ug/L	0.988		78-59-1	34
NELAC Naphthalene	<0.988	ug/L	0.988		91-20-3	34
NELAC Nitrobenzene	<0.988	ug/L	0.988		98-95-3	34
NELAC n-Nitrosodiethylamine	<0.988	ug/L	0.988	X	55-18-5	34
NELAC N-Nitrosodimethylamine	<0.988	ug/L	0.988		62-75-9	34
NELAC n-Nitroso-di-n-butylamine	<0.988	ug/L	0.988		924-16-3	34
NELAC N-Nitrosodi-n-propylamine	<0.988	ug/L	0.988		621-64-7	34
NELAC N-Nitrosodiphenylamine (as DPA)	<0.988	ug/L	0.988		86-30-6	34
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<0.988	ug/L	0.988		59-50-7	34
NELAC Pentachlorobenzene	<0.988	ug/L	0.988		608-93-5	34
NELAC Pentachlorophenol	<4.94	ug/L	4.94		87-86-5	34



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACEX PO: 2605353
 Taken: 05/29/2024 18:30:00

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Analyzed 1124511 06/17/2024 20:50:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phenanthrene	<0.988	ug/L	0.988		85-01-8	34
NELAC Phenol	<0.988	ug/L	0.988		108-95-2	34
NELAC Pyrene	<0.988	ug/L	0.988		129-00-0	34
NELAC Pyridine	<1.33	ug/L	1.33	X	110-86-1	34

EPA 625.1 Prepared: 1121954 06/03/2024 14:00:00 Calculated 1124511 06/19/2024 13:56:10 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cresols Total	<7.91	ug/L	7.91		1319-77-3, etc.	34

SM 2130 B-2011 Prepared: 1123697 06/11/2024 15:25:00 Analyzed 1123697 06/11/2024 15:25:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Turbidity	2.55	NTU	0.300	H		11

SM 2320 B-2011 Prepared: 1122797 06/07/2024 09:23:00 Analyzed 1122797 06/07/2024 09:23:00 KNI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Alkalinity (as CaCO3)	136	mg/L	1.00			18

SM 2540 C-2015 Prepared: 1122168 06/03/2024 08:30:00 Analyzed 1122168 06/03/2024 08:30:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	950	mg/L	50.0			11

SM 2540 D-2015 Prepared: 1121687 05/30/2024 15:00:00 Analyzed 1121687 05/30/2024 15:00:00 ADR

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Suspended Solids	7.50	mg/L	2.00			11

SM 3500-Cr B-2011 Prepared: 1121254 05/29/2024 18:30:00 Analyzed 1121254 05/29/2024 18:30:00 JMZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hex Cr, Field Preservation	preserved	ug/L	3		18540-29-9	



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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 3500-Cr B-2011 Prepared: 1122575 06/05/2024 09:00:00 Analyzed 1122575 06/05/2024 09:00:00 ALB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	<3.00	ug/L	3.00		18540-29-9	19

SM 4500-CN⁻E-2016 Prepared: 1121649 05/31/2024 07:45:07 Analyzed 1122121 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	<0.00238	mg/L	0.00238			23

SM 4500-CN⁻G-2016 Prepared: 06/04/2024 16:15:50 Calculated 06/04/2024 16:15:50 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	<0.00238	mg/L	0.00238			

SM 4500-CN⁻G-2016 Prepared: 1121666 05/31/2024 09:01:54 Analyzed 1122125 06/04/2024 13:35:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			29

SM 4500-H+ B-2011 Prepared: 1121148 05/28/2024 03:56:00 Analyzed 1121148 05/28/2024 03:56:00 CLI

Parameter	Results	Units	RL	Flags	CAS	Bottle
pH Client Provided	6.97	SU	0			

SM 4500-PE-2011 Prepared: 1121996 06/03/2024 12:10:00 Analyzed 1121996 06/03/2024 12:10:00 TRC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.0241	mg/L	0.00311		7723-14-0	13

SM 5210 B-2016 Prepared: 1121636 05/31/2024 Analyzed 1121636 06/05/2024 13:39:32 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	8.49	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
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2302895 RETENTION POND

Received: 05/30/2024

Non-Potable Water Collected by: Client SPACE X PO: 2605353
 Taken: 05/29/2024 18:30:00

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 06/05/2024 12:51:39 ESN

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	2.08	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1121775 05/31/2024 11:00:00 Analyzed 1121775 05/31/2024 11:00:00 HLT

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			13

SM 5310 C-2014 Prepared: 1122326 06/05/2024 12:13:00 Analyzed 1122326 06/05/2024 12:13:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.53	mg/L	0.500			15

Sample Preparation

2302895 RETENTION POND

Received: 05/30/2024

05/29/2024

2605353

Prepared: 12/31/1899 10:21:18 Calculated 10:21:18 CAL

z Environmental Fee (per Project) Verified

ASTM D7065-11 Prepared: 1122298 06/05/2024 14:00:00 Analyzed 1122871 06/06/2024 17:35:00 DWL

z Nonyl Phenol Expansion Entered 36

EPA 1664B (HEM) Prepared: 1122284 06/05/2024 10:00:00 Analyzed 1122284 06/05/2024 10:00:00 MAX

NELAC O&G HEM Started Started



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Received: 05/30/2024
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05/29/2024

	<i>EPA 200.2 2.8</i>		<i>Prepared: 1121672 05/31/2024 08:00:00</i>	<i>Analyzed 1121672 05/31/2024 08:00:00</i>		<i>HLT</i>
z	Liquid Metals Digestion	50/50	ml			12
	<i>EPA 245.1 3</i>		<i>Prepared: 1121865 06/03/2024 10:30:00</i>	<i>Analyzed 1121865 06/03/2024 10:30:00</i>		<i>ALB</i>
NELAC	Mercury Liquid Metals Digestion	50/25	ml			12
	<i>EPA 350.2, Rev. 2.0</i>		<i>Prepared: 1121581 05/30/2024 15:18:42</i>	<i>Analyzed 1121581 05/30/2024 15:18:42</i>		<i>SRJ</i>
NELAC	Ammonia Distillation	6/6	ml			13
	<i>EPA 351.2, Rev 2.0</i>		<i>Prepared: 1121658 05/31/2024 08:22:52</i>	<i>Analyzed 1121658 05/31/2024 08:22:52</i>		<i>MEG</i>
NELAC	TKN Block Digestion	20/20	ml			14
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1121972 06/03/2024 14:30:00</i>		<i>MCC</i>
	PCB Liq-Liq Extr. W/Hex Exch.	10/605	ml			01
	<i>EPA 608.3</i>		<i>Prepared: 1121972 06/03/2024 14:30:00</i>	<i>Analyzed 1122623 06/06/2024 01:55:00</i>		<i>KAP</i>
NELAC	Polychlorinated Biphenyls	Entered				35
	<i>EPA 624.1</i>		<i>Prepared: 1121678 05/30/2024 17:55:00</i>	<i>Analyzed 1121678 05/30/2024 17:55:00</i>		<i>MRI</i>
NELAC	Acrolein/Acrylonitrile Exp.	Entered				04
	<i>EPA 624.1</i>		<i>Prepared: 1121680 05/30/2024 19:47:00</i>	<i>Analyzed 1121680 05/30/2024 19:47:00</i>		<i>MRI</i>
z	Table D-1/D-2 Volatile Expansion	Entered				07



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05/29/2024

EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1121954	06/03/2024	14:00:00	MCC
Liquid-Liquid Extraction, BNA	1/1012	ml					02
EPA 625.1	Prepared: 1121954	06/03/2024	14:00:00	Analyzed 1124511	06/17/2024	20:50:00	PMI
NELAC Table D-1/ D-2 Semivolatiles Exp	Entered						34
EPA 625.1	Prepared: 1122298	06/05/2024	14:00:00	Analyzed 1122298	06/05/2024	14:00:00	MCC
Nonylphenol Liq-Liq Extract	1/892	ml					09
SM 2540 C-2015	Prepared: 1121816	06/03/2024	08:30:00	Analyzed 1121816	06/03/2024	08:30:00	ADR
NELAC Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1121228	05/30/2024	15:00:00	Analyzed 1121228	05/30/2024	15:00:00	ADR
NELAC TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1121649	05/31/2024	07:45:07	Analyzed 1121649	05/31/2024	07:45:07	MEG
NELAC Cyanide Distillation	10/5	ml					17
SM 4500-CN ⁻ C-2016	Prepared: 1121666	05/31/2024	09:01:54	Analyzed 1121666	05/31/2024	09:01:54	MEG
NELAC CN Dist After Chlorination	10/5	ml					17
SM 5210 B-2016	Prepared: 1121636	05/31/2024		Analyzed 1121636	05/31/2024	06:51:30	ESN
NELAC BOD Set Started	Started						



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05/29/2024

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1121637 05/31/2024 Analyzed 1121637 05/31/2024 06:51:30 ESN

NELAC **BODc Set Started**

Started

Qualifiers:

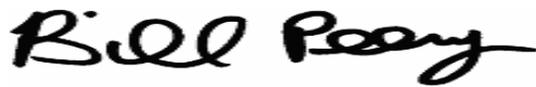
- J - Analyte detected below quantitation limit
- X - Standard reads higher than desired.
- H - Sample started outside recommended holding time
- S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

- (N)ELAC - Covered in our NELAC scope of accreditation
- z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC. RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



QUALITY CONTROL



SPAC-R

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Printed 06/26/2024

Analytical Set **1121636**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385424
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385476
Biochemical Oxygen Demand (BOD5)	1121636	0.2	0.200	0.500	mg/L	126385536

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2302815	17.2	18.0	mg/L	4.55	30.0
Biochemical Oxygen Demand (BOD5)	2302842	64.2	62.7	mg/L	2.36	30.0
Biochemical Oxygen Demand (BOD5)	2302972	8.48	11.4	mg/L	29.4	30.0
Biochemical Oxygen Demand (BOD5)	2303089	91.2	81.3	mg/L	11.5	30.0
Biochemical Oxygen Demand (BOD5)	2303148	9.52	9.70	mg/L	1.87	30.0
Biochemical Oxygen Demand (BOD5)	2303336	40.9	30.4	mg/L	29.5	30.0
Biochemical Oxygen Demand (BOD5)	2303410	4.83	4.19	mg/L	14.2	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1121636	0.697	0.200	0.500	mg/L	126385426
Biochemical Oxygen Demand (BOD5)	1121636	0.850	0.200	0.500	mg/L	126385478
Biochemical Oxygen Demand (BOD5)	1121636	1.04	0.200	0.500	mg/L	126385538

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		226	198	mg/L	114	83.7 - 116	126385427
Biochemical Oxygen Demand (BOD5)		218	198	mg/L	110	83.7 - 116	126385479
Biochemical Oxygen Demand (BOD5)		216	198	mg/L	109	83.7 - 116	126385539

Analytical Set **1121637**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385562
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385614
BOD Carbonaceous	1121637	0.2	0.200	0.500	mg/L	126385664

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
BOD Carbonaceous	2302827	3.48	3.04	mg/L	13.5	30.0
BOD Carbonaceous	2302936	ND	ND	mg/L		30.0
BOD Carbonaceous	2303036	3.00	2.84	mg/L	5.48	30.0
BOD Carbonaceous	2303169	2.40	ND	mg/L	200 *	30.0
BOD Carbonaceous	2303211	2.48	2.28	mg/L	8.40	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.830	0.200	0.500	mg/L	126385564
BOD Carbonaceous	1121637	0.880	0.200	0.500	mg/L	126385616

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Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1121637	0.840	0.200	0.500	mg/L	126385666

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
BOD Carbonaceous		226	198	mg/L	114	83.7 - 116	126385565
BOD Carbonaceous		217	198	mg/L	110	83.7 - 116	126385617
BOD Carbonaceous		219	198	mg/L	111	83.7 - 116	126385667

Analytical Set 1122121

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide, total	1121649	ND	0.00238	0.005	mg/L	126398027

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126398017
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398028
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398035
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398036
Cyanide, total	0.534	0.500	mg/L	107	90.0 - 110	126398037
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398038
Cyanide, total	0.540	0.500	mg/L	108	90.0 - 110	126398039
Cyanide, total	0.522	0.500	mg/L	104	90.0 - 110	126398040
Cyanide, total	0.536	0.500	mg/L	107	90.0 - 110	126398048
Cyanide, total	0.527	0.500	mg/L	105	90.0 - 110	126398059

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	2302895	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.199	0.200	mg/L	99.5	90.0 - 110	126398016

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	1121649	0.361	0.364	0.400	90.0 - 110	90.2	91.0	mg/L	0.828	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide, total	2302895	0.362	ND	0.400	mg/L	90.5	90.0 - 110	126398033

Analytical Set 1122125

SM 4500-CN⁻ G-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide After Chlorination	1121666	ND	0.00119	0.0025	mg/L	126398194

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126398189
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398190
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398191
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398192
Cyanide After Chlorination	0.534	0.500	mg/L	107	90.0 - 110	126398193
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398200
Cyanide After Chlorination	0.540	0.500	mg/L	108	90.0 - 110	126398204
Cyanide After Chlorination	0.522	0.500	mg/L	104	90.0 - 110	126398215
Cyanide After Chlorination	0.536	0.500	mg/L	107	90.0 - 110	126398219
Cyanide After Chlorination	0.527	0.500	mg/L	105	90.0 - 110	126398220

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2302508	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.199	0.200	mg/L	99.5	90.0 - 110	126398188

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1121666	0.181	0.182	0.200	90.0 - 110	90.5	91.0	mg/L	0.551	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2302508	0.361	ND	0.400	mg/L	90.2	90.0 - 110	126398199

Analytical Set 1122132

EPA 351.2 2

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Kjeldahl Nitrogen	1121658	ND	0.00712	0.050	mg/L	126398380

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398368
Total Kjeldahl Nitrogen	5.20	5.00	mg/L	104	90.0 - 110	126398377
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398388
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	126398399
Total Kjeldahl Nitrogen	5.47	5.00	mg/L	109	90.0 - 110	126398410
Total Kjeldahl Nitrogen	5.44	5.00	mg/L	109	90.0 - 110	126398421
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126398432
Total Kjeldahl Nitrogen	5.29	5.00	mg/L	106	90.0 - 110	126398436
Total Kjeldahl Nitrogen	5.37	5.00	mg/L	107	90.0 - 110	126398437
Total Kjeldahl Nitrogen	4.93	5.00	mg/L	98.6	90.0 - 110	126398447
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	126398448
Total Kjeldahl Nitrogen	5.30	5.00	mg/L	106	90.0 - 110	126398449

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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	2302945	ND	ND	mg/L		20.0
Total Kjeldahl Nitrogen	2303187	ND	ND	mg/L		20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126398367

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	1121658	4.73	4.67	5.00	90.0 - 110	94.6	93.4	mg/L	1.28	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>	
Total Kjeldahl Nitrogen	2302945	-0.541	ND	5.00	mg/L	0	80.0 - 120	126398385	*
Total Kjeldahl Nitrogen	2303187	4.77	ND	5.00	mg/L	95.4	80.0 - 120	126398389	

Analytical Set 1122206

EPA 350.1 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Ammonia Nitrogen	1121581	ND	0.00336	0.020	mg/L	126399578

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399560
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399569
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399576
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399587
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399598
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126399608
Ammonia Nitrogen	2.13	2.00	mg/L	106	90.0 - 110	126399616
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399619
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399628
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126399639
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399647
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399658
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399668
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399672
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399677
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	126399685
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	126399696
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126399707
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	126399715
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126399717

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	2302876	0.138	0.142	mg/L	2.86	20.0
Ammonia Nitrogen	2302888	0.090	0.086	mg/L	4.55	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	126399559

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Ammonia Nitrogen	1121581	2.09	2.10	2.00	90.0 - 110	104	105	mg/L	0.477	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Ammonia Nitrogen	2302876	2.11	0.142	2.00	mg/L	98.4	80.0 - 120	126399583
Ammonia Nitrogen	2302888	2.19	0.086	2.00	mg/L	105	80.0 - 120	126399586

Analytical Set

1121687

SM 2540 D-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	ND	2	2	mg/L	126387239

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1121687	-0.0001			grams	126387238

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2302808	10.6	10.3	mg/L	2.87	20.0
Total Suspended Solids	2302810	8.48	8.26	mg/L	2.63	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1121687	54.0	50.0	mg/L	108	90.0 - 110	126387257

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		108	100	mg/L	108	90.0 - 110	126387256

Analytical Set

1122168

SM 2540 C-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	5.00	5.00	5.00	mg/L	126398839

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1122168	0.0005			grams	126398826

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<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Dissolved Solids	2302642	18.0	ND	mg/L	200 *	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Dissolved Solids	1122168	198	200	mg/L	99.0	85.0 - 115	126398840

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Dissolved Solids		90.0	100	mg/L	90.0	90.0 - 110	126398827

Analytical Set 1122457

EPA 1664B (HEM)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Oil and Grease (HEM)	1122457	ND	0.804	4.00	mg/L	126408507

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Oil and Grease (HEM)	1122457	0.0005			grams	126408506
Oil and Grease (HEM)	1122457	0.0001			grams	126408531

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Oil and Grease (HEM)	1122457	37.4	40.0	mg/L	93.5	78.0 - 114	126408508

MS

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Oil and Grease (HEM)	2302895	39.9	0	3.60	40.0	78.0 - 114	99.8		mg/L		20.0

Analytical Set 1121871

EPA 300.0 2.1

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Fluoride	0.120	0.100	mg/L	120	70.0 - 130	126391539
Nitrate-Nitrogen Total	0.021	0.0226	mg/L	92.9	70.0 - 130	126391539

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1121871	ND	0.0972	0.300	mg/L	126391540
Fluoride	1121871	ND	0.010	0.100	mg/L	126391540
Nitrate-Nitrogen Total	1121871	ND	0.00745	0.0226	mg/L	126391540

CCB

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloride	1121871	0.025	0.0972	0.300	mg/L	126391536
Chloride	1121871	0.012	0.0972	0.300	mg/L	126391552
Chloride	1121871	0.030	0.0972	0.300	mg/L	126391568
Fluoride	1121871	0	0.010	0.100	mg/L	126391536
Fluoride	1121871	0	0.010	0.100	mg/L	126391552

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QUALITY CONTROL



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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Fluoride	1121871	0	0.010	0.100	mg/L	126391568
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391536
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391552
Nitrate-Nitrogen Total	1121871	0	0.00745	0.0226	mg/L	126391568

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126391535
Chloride	9.99	10.0	mg/L	99.9	90.0 - 110	126391551
Chloride	10.0	10.0	mg/L	100	90.0 - 110	126391567
Fluoride	10.0	10.0	mg/L	100	90.0 - 110	126391535
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126391551
Fluoride	9.88	10.0	mg/L	98.8	90.0 - 110	126391567
Nitrate-Nitrogen Total	2.31	2.26	mg/L	102	90.0 - 110	126391535
Nitrate-Nitrogen Total	2.25	2.26	mg/L	99.6	90.0 - 110	126391551
Nitrate-Nitrogen Total	2.21	2.26	mg/L	97.8	90.0 - 110	126391567

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1121871	5.08	5.01	5.00	85.0 - 115	102	100	mg/L	1.39	20.0
Fluoride	1121871	4.81	4.77	5.00	88.0 - 120	96.2	95.4	mg/L	0.835	20.0
Nitrate-Nitrogen Total	1121871	1.13	1.10	1.13	88.0 - 116	100	97.3	mg/L	2.69	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2302484	323	323	231	100	80.0 - 120	92.0	92.0	mg/L	0	20.0
Fluoride	2302484	88.6	90.5	ND	100	80.0 - 120	88.6	90.5	mg/L	2.12	20.0
Nitrate-Nitrogen Total	2302484	22.0	22.0	0.767	22.6	80.0 - 120	94.0	94.0	mg/L	0	20.0
Chloride	2302487	1880	1840	1690	200	80.0 - 120	95.0	75.0 *	mg/L	23.5 *	20.0
Fluoride	2302487	176	177	ND	200	80.0 - 120	88.0	88.5	mg/L	0.567	20.0
Nitrate-Nitrogen Total	2302487	44.9	43.9	1.72	45.2	80.0 - 120	95.5	93.3	mg/L	2.34	20.0

Analytical Set 1122502

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	ND	0.254	0.300	mg/L	126409510

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1122502	0	0.254	0.300	mg/L	126409506
Sulfate	1122502	0	0.254	0.300	mg/L	126409526
Sulfate	1122502	0	0.254	0.300	mg/L	126409538

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.79	10.0	mg/L	97.9	90.0 - 110	126409505

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.56	10.0	mg/L	95.6	90.0 - 110	126409525
Sulfate	9.60	10.0	mg/L	96.0	90.0 - 110	126409537

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1122502	4.68	4.68	5.00	85.0 - 115	93.6	93.6	mg/L	0	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2302895	362	367	282	100	80.0 - 120	80.0	85.0	mg/L	6.06	20.0
Sulfate	2303362	411	401	340	100	80.0 - 120	71.0 *	61.0 *	mg/L	15.2	20.0

Analytical Set **1121966**

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1121865	ND	0.113	0.200	ug/L	126393298

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.89	5.000	ug/L	97.8	90.0 - 110	126393282
Mercury, Total	4.90	5.000	ug/L	98.0	90.0 - 110	126393283
Mercury, Total	4.84	5.000	ug/L	96.8	90.0 - 110	126393297
Mercury, Total	4.77	5.000	ug/L	95.4	90.0 - 110	126393304
Mercury, Total	4.81	5.000	ug/L	96.2	90.0 - 110	126393311

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	19.9	20.00	ug/L	99.5	90.0 - 110	126393281

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	4.98	5.000	ug/L	99.6	90.0 - 110	126393280

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Mercury, Total	1121865	8.94	8.99	10.0	85.0 - 115	89.4	89.9	ug/L	0.558	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Mercury, Total	2302895	8.99	9.05	ND	10.0	70.0 - 130	89.9	90.5	ug/L	0.665	20.0

Analytical Set **1122038**

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Aluminum, Total	1121672	ND	0.00171	0.00171	mg/L	126395960
Arsenic, Total	1121672	ND	0.000184	0.001	mg/L	126395960
Barium, Total	1121672	ND	0.000635	0.001	mg/L	126395960

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QUALITY CONTROL



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Beryllium, Total	1121672	ND	0.000139	0.001	mg/L	126395960
Cadmium, Total	1121672	ND	0.000067	0.001	mg/L	126395960
Chromium, Total	1121672	ND	0.000621	0.001	mg/L	126395960
Copper, Total	1121672	ND	0.00155	0.00155	mg/L	126395960
Lead, Total	1121672	ND	0.000244	0.001	mg/L	126395960
Nickel, Total	1121672	ND	0.00112	0.00112	mg/L	126395960
Silver, Total	1121672	ND	0.000226	0.001	mg/L	126395960
Thallium, Total	1121672	ND	0.000106	0.001	mg/L	126395960
Zinc, Total	1121672	ND	0.000875	0.001	mg/L	126395960

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395958
Aluminum, Total	0.050	0.05	mg/L	100	90.0 - 110	126395959
Aluminum, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395966
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396000
Aluminum, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396005
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126396011
Aluminum, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396017
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396024
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396034
Aluminum, Total	0.0541	0.05	mg/L	108	90.0 - 110	126396066
Aluminum, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126396077
Aluminum, Total	0.0503	0.05	mg/L	101	90.0 - 110	126396083
Arsenic, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395959
Arsenic, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126395966
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126395971
Arsenic, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396005
Arsenic, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396011
Arsenic, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396017
Barium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Barium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Barium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395971
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396000
Barium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126396005
Barium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Barium, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396017
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396024
Beryllium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126395959
Beryllium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126395966
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395971
Cadmium, Total	0.0504	0.05	mg/L	101	90.0 - 110	126395958
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395959
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395966

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QUALITY CONTROL



SPAC-R

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395971
Cadmium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396005
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396011
Cadmium, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396017
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126395959
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Chromium, Total	0.0518	0.05	mg/L	104	90.0 - 110	126395972
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395973
Chromium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126395980
Chromium, Total	0.0461	0.05	mg/L	92.2	90.0 - 110	126395986
Chromium, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126395992
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396000
Chromium, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	126396005
Chromium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396011
Chromium, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396017
Chromium, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126396024
Copper, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126395959
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126395966
Copper, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126395971
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	126396005
Copper, Total	0.0457	0.05	mg/L	91.4	90.0 - 110	126396011
Copper, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126396017
Copper, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126396024
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396034
Copper, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396045
Copper, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396056
Copper, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	126396066
Copper, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	126396077
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396083
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396094
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126396105
Copper, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	126396110
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126395959
Lead, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126395971
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395980
Lead, Total	0.0465	0.05	mg/L	93.0	90.0 - 110	126395986
Lead, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126395992
Lead, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	126396000
Lead, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	126396005
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396011
Lead, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396017
Lead, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396024
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396034

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QUALITY CONTROL



SPAC-R

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lead, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126396045
Lead, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126396056
Lead, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396066
Lead, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126396077
Lead, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126396083
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396094
Lead, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	126396105
Lead, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396110
Nickel, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395959
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126395966
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126395971
Nickel, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126396005
Nickel, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396011
Nickel, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126396017
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395958
Silver, Total	0.0538	0.05	mg/L	108	90.0 - 110	126395959
Silver, Total	0.0537	0.05	mg/L	107	90.0 - 110	126395966
Silver, Total	0.0536	0.05	mg/L	107	90.0 - 110	126395971
Silver, Total	0.052	0.05	mg/L	104	90.0 - 110	126396011
Silver, Total	0.0526	0.05	mg/L	105	90.0 - 110	126396017
Silver, Total	0.0528	0.05	mg/L	106	90.0 - 110	126396066
Silver, Total	0.0523	0.05	mg/L	105	90.0 - 110	126396077
Thallium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126395959
Thallium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395966
Thallium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395971
Thallium, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	126396005
Thallium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Thallium, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126396017
Thallium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126396024
Zinc, Total	0.0509	0.05	mg/L	102	90.0 - 110	126395959
Zinc, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126395966
Zinc, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395971
Zinc, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126396005
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396011
Zinc, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126396017
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126396034
Zinc, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126396045
Zinc, Total	0.0502	0.05	mg/L	100	90.0 - 110	126396066
Zinc, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126396077
Zinc, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126396083

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Arsenic, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953

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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Barium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126395953
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Cadmium, Total	0.050	0.05	mg/L	100	90.0 - 110	126395953
Chromium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126395953
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Lead, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126395953
Nickel, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Silver, Total	0.0542	0.05	mg/L	108	90.0 - 110	126395953
Thallium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126395953
Zinc, Total	0.0508	0.05	mg/L	102	90.0 - 110	126395953

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Aluminum, Total	1121672	0.512	0.505	0.500	85.0 - 115	102	101	mg/L	1.38	20.0
Arsenic, Total	1121672	0.501	0.493	0.500	85.0 - 115	100	98.6	mg/L	1.61	20.0
Barium, Total	1121672	0.504	0.502	0.500	85.0 - 115	101	100	mg/L	0.398	20.0
Beryllium, Total	1121672	0.206	0.208	0.200	85.0 - 115	103	104	mg/L	0.966	20.0
Cadmium, Total	1121672	0.257	0.255	0.250	85.0 - 115	103	102	mg/L	0.781	20.0
Chromium, Total	1121672	0.495	0.489	0.500	85.0 - 115	99.0	97.8	mg/L	1.22	20.0
Copper, Total	1121672	0.506	0.502	0.500	85.0 - 115	101	100	mg/L	0.794	20.0
Lead, Total	1121672	0.518	0.517	0.500	85.0 - 115	104	103	mg/L	0.193	20.0
Nickel, Total	1121672	0.505	0.504	0.500	85.0 - 115	101	101	mg/L	0.198	20.0
Silver, Total	1121672	0.107	0.108	0.100	85.0 - 115	107	108	mg/L	0.930	20.0
Thallium, Total	1121672	0.518	0.516	0.500	85.0 - 115	104	103	mg/L	0.387	20.0
Zinc, Total	1121672	0.512	0.510	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

LDR

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	10.4	10	mg/L	104	90.0 - 110	126395955
Arsenic, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955
Barium, Total	9.52	10	mg/L	95.2	90.0 - 110	126395955
Beryllium, Total	10.3	10	mg/L	103	90.0 - 110	126395955
Cadmium, Total	9.71	10	mg/L	97.1	90.0 - 110	126395955
Chromium, Total	9.65	10	mg/L	96.5	90.0 - 110	126395955
Copper, Total	9.33	10	mg/L	93.3	90.0 - 110	126395955
Lead, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Manganese, Total	9.53	10	mg/L	95.3	90.0 - 110	126395955
Nickel, Total	9.56	10	mg/L	95.6	90.0 - 110	126395955
Thallium, Total	10.2	10	mg/L	102	90.0 - 110	126395955
Zinc, Total	9.64	10	mg/L	96.4	90.0 - 110	126395955

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126395954
Lead, Total	0.000616	0.001	mg/L	61.6	25.0 - 175	126395954



QUALITY CONTROL



SPAC-R

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Arsenic, Total	2303140	0.508	0.502	0.00457	0.500	70.0 - 130	101	99.5	mg/L	1.20	20.0
Beryllium, Total	2303140	0.212	0.209	ND	0.200	70.0 - 130	106	104	mg/L	1.43	20.0
Chromium, Total	2303140	0.488	0.500	0.00079	0.500	70.0 - 130	97.4	99.8	mg/L	2.43	20.0
Lead, Total	2303140	0.521	0.514	0.000346	0.500	70.0 - 130	104	103	mg/L	1.35	20.0
Nickel, Total	2303140	0.505	0.496	0.0021	0.500	70.0 - 130	101	98.8	mg/L	1.81	20.0
Silver, Total	2303140	0.108	0.106	ND	0.100	70.0 - 130	108	106	mg/L	1.87	20.0
Zinc, Total	2303140	0.526	0.521	0.0197	0.500	70.0 - 130	101	100	mg/L	0.992	20.0
Aluminum, Total	2303221	0.529	0.552	0.0225	0.500	70.0 - 130	101	106	mg/L	4.44	20.0
Barium, Total	2303221	0.502	0.508	0.00469	0.500	70.0 - 130	99.5	101	mg/L	1.20	20.0
Cadmium, Total	2303221	0.252	0.252	0.000148	0.250	70.0 - 130	101	101	mg/L	0	20.0
Copper, Total	2303221	0.506	0.515	0.0092	0.500	70.0 - 130	99.4	101	mg/L	1.80	20.0

Analytical Set 1122039

EPA 200.8 5.4

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Thallium, Total	2303221	0.524	0.522	0.000329	0.500	81.1 - 109	105	104	mg/L	0.383	20.0

Analytical Set 1122326

SM 5310 C-2014

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	2.15	2.00	mg/L	108	50.0 - 150	126402004

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.136	0.0618	0.500	mg/L	126402003

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Organic Carbon	1122326	0.0999	0.0618	0.500	mg/L	126401997
Total Organic Carbon	1122326	0.154	0.0618	0.500	mg/L	126402015

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126402000
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402016

ICL

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126401999

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Organic Carbon	10.3	10.0	mg/L	103	90.0 - 110	126402001

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Organic Carbon	1122326	5.05	5.00	mg/L	101	85.0 - 115	126402002

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MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Total Organic Carbon	2302870	10.4	10.4	0.865	10.0	85.0 - 115	95.4	95.4	mg/L	0	20.0

Standard							
<i>Parameter</i>	<i>Sample</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Total Organic Carbon		49.1	50.0	mg/L	98.2	90.0 - 110	126401998

Analytical Set 1122450

EPA 200.8 5.4

Blank										
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>				
Selenium, Total	1121672	0.000873	0.000728	0.002	mg/L	126408062				

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126407962	
Selenium, Total	0.0503	0.05	mg/L	101	90.0 - 110	126407972	
Selenium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126407982	
Selenium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126407989	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408000	
Selenium, Total	0.047	0.05	mg/L	94.0	90.0 - 110	126408005	
Selenium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126408012	
Selenium, Total	0.050	0.05	mg/L	100	90.0 - 110	126408013	
Selenium, Total	0.0507	0.05	mg/L	101	90.0 - 110	126408022	
Selenium, Total	0.0501	0.05	mg/L	100	90.0 - 110	126408061	
Selenium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126408066	
Selenium, Total	0.0516	0.05	mg/L	103	90.0 - 110	126408072	

ICV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Selenium, Total	0.0502	0.05	mg/L	100	90.0 - 110	126407941	

LCS Dup										
<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	1121672	0.494	0.494	0.500	85.0 - 115	98.8	98.8	mg/L	0	20.0

MSD											
<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	2303221	0.484	0.481	0.00162	0.500	70.0 - 130	96.5	95.9	mg/L	0.624	20.0

Analytical Set 1122575

SM 3500-Cr B-2011

Blank										
<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>				
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411861				
Hexavalent Chromium	1122575	ND	0.550	3.00	ug/L	126411873				

CCV							
<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>	
Hexavalent Chromium	85.2	80.0	ug/L	106	90.0 - 110	126411862	

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QUALITY CONTROL



SPAC-R

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexavalent Chromium	85.4	80.0	ug/L	107	90.0 - 110	126411874

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexavalent Chromium	1122575	85.4	86.2	80.0	85.0 - 115	107	108	ug/L	0.932	15.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Hexavalent Chromium	2304236	68.6	67.6	ND	80.0	70.0 - 130	85.8	84.5	ug/L	1.47	20.0

Analytical Set 1123260

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Antimony, Total	1121672	ND	0.000847	0.003	mg/L	126429301

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0525	0.05	mg/L	105	90.0 - 110	126429267
Antimony, Total	0.0537	0.05	mg/L	107	90.0 - 110	126429277
Antimony, Total	0.0533	0.05	mg/L	107	90.0 - 110	126429287
Antimony, Total	0.053	0.05	mg/L	106	90.0 - 110	126429295
Antimony, Total	0.0539	0.05	mg/L	108	90.0 - 110	126429305
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429311
Antimony, Total	0.0549	0.05	mg/L	110	90.0 - 110	126429321
Antimony, Total	0.0541	0.05	mg/L	108	90.0 - 110	126429331

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.050	0.05	mg/L	100	90.0 - 110	126429237

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Antimony, Total	1121672	0.516	0.514	0.500	85.0 - 115	103	103	mg/L	0.388	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Antimony, Total	2303221	0.511	0.517	ND	0.500	70.0 - 130	102	103	mg/L	1.17	20.0

Analytical Set 1123498

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1121672	ND	0.0156	0.500	mg/L	126434927
Iron, Total	1121672	ND	0.00379	0.025	mg/L	126434927

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126434920

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QUALITY CONTROL



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	25.1	25.0	mg/L	100	90.0 - 110	126434930
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126434936
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126434920
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434930
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126434936

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126434914
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126434914

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126434918
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126434918

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1121672	4.91	4.89	5.00	85.0 - 115	98.2	97.8	mg/L	0.408	25.0
Iron, Total	1121672	0.498	0.497	0.500	85.0 - 115	99.6	99.4	mg/L	0.201	25.0

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126434919
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126434919

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2303221	6.42	6.55	1.56	5.00	75.0 - 125	97.2	99.8	mg/L	2.64	25.0
Iron, Total	2303221	0.560	0.563	0.080	0.500	75.0 - 125	96.0	96.6	mg/L	0.623	25.0

Analytical Set **1123699**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MDL</u>	<u>Units</u>	<u>File</u>
Manganese, Total	1121672	ND	0.000168	0.001	mg/L	126440088

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Manganese, Total	0.0529	0.05	mg/L	106	90.0 - 110	126440082
Manganese, Total	0.052	0.05	mg/L	104	90.0 - 110	126440092
Manganese, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126440119
Manganese, Total	0.050	0.05	mg/L	100	90.0 - 110	126440128
Manganese, Total	0.0535	0.05	mg/L	107	90.0 - 110	126440204
Manganese, Total	0.0508	0.05	mg/L	102	90.0 - 110	126440235
Manganese, Total	0.0516	0.05	mg/L	103	90.0 - 110	126440243
Manganese, Total	0.0538	0.05	mg/L	108	90.0 - 110	126440254

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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126440073

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Manganese, Total	1121672	0.510	0.512	0.500	85.0 - 115	102	102	mg/L	0.391	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126440074

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Manganese, Total	2303221	0.504	0.501	0.00211	0.500	70.0 - 130	100	99.8	mg/L	0.600	20.0

Analytical Set 1121678

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1121678	174	10	1.5	0 - 2.00	126387047
BFB Mass 174	1121678	95.0	676	60.4	50.0 - 100	126387047
BFB Mass 175	1121678	174	50	7.4	5.00 - 9.00	126387047
BFB Mass 176	1121678	174	648	95.9	95.0 - 101	126387047
BFB Mass 177	1121678	176	44	6.8	5.00 - 9.00	126387047
BFB Mass 50	1121678	95.0	225	20.1	15.0 - 40.0	126387047
BFB Mass 75	1121678	95.0	557	49.8	30.0 - 60.0	126387047
BFB Mass 95	1121678	95.0	1118	100.0	100 - 100	126387047
BFB Mass 96	1121678	95.0	73	6.5	5.00 - 9.00	126387047

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Acrolein	1121678	ND	2.33	4.00	ug/L	126387051
Acrylonitrile	1121678	ND	0.998	1.00	ug/L	126387051

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	170700	179900	89970	269900	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	168300	179900	89970	269900	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	143200	179900	89970	269900	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	373700	398400	199200	597600	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	381600	398400	199200	597600	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	337200	398400	199200	597600	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	174400	179900	89970	269900	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	396500	398400	199200	597600	126387055	1121678

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS	11.97	11.97	11.91	12.03	126387049	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	LCS Dup	11.97	11.97	11.91	12.03	126387050	1121678
1,4-DichlorobenzeneD4 (ISTD)	1121678	Blank	11.97	11.97	11.91	12.03	126387051	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS	9.597	9.597	9.537	9.657	126387049	1121678
ChlorobenzeneD5 (ISTD)	1121678	LCS Dup	9.597	9.597	9.537	9.657	126387050	1121678
ChlorobenzeneD5 (ISTD)	1121678	Blank	9.597	9.597	9.537	9.657	126387051	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387053	1121678
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387054	1121678
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387053	1121678
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387054	1121678
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387055	1121678
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387055	1121678

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1121678	58.0	55.0	40.0	60.0 - 140	145 *	138	ug/L	4.95	30.0
Acrylonitrile	1121678	34.4	33.8	40.0	60.0 - 140	86.0	84.5	ug/L	1.76	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2301862	17.9	34.6	ND	400	40.0 - 160	4.48 *	8.65 *	ug/L	63.6 *	60.0
Acrylonitrile	2301862	19.8	3.00	ND	400	40.0 - 160	4.95 *	0.750 *	ug/L	147 *	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121678	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387049
1,2-DCA-d4 (SURR)	1121678	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387050
1,2-DCA-d4 (SURR)	1121678	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387051
Bromofluorobenzene (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Bromofluorobenzene (SURR)	1121678	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387050
Bromofluorobenzene (SURR)	1121678	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387051
Dibromofluoromethane (SURR)	1121678	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387049
Dibromofluoromethane (SURR)	1121678	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387050
Dibromofluoromethane (SURR)	1121678	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387051
TolueneD8 (SURR)	1121678	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387049
TolueneD8 (SURR)	1121678	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387050
TolueneD8 (SURR)	1121678	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387051
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387053
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387054
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387053
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387053
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387054
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387053
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387054
1,2-DCA-d4 (SURR)	2302895	Unknown	19.8	20.0	ug/L	99.0	70.0 - 130	126387055

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QUALITY CONTROL



SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2302895	Unknown	20.3	20.0	ug/L	102	70.0 - 130	126387055
Dibromofluoromethane (SURR)	2302895	Unknown	20.1	20.0	ug/L	100	70.0 - 130	126387055
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387055

Analytical Set

1121680

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1121680	174	10	1.5	0 - 2.00	126387066
BFB Mass 174	1121680	95.0	676	60.4	50.0 - 100	126387066
BFB Mass 175	1121680	174	50	7.4	5.00 - 9.00	126387066
BFB Mass 176	1121680	174	648	95.9	95.0 - 101	126387066
BFB Mass 177	1121680	176	44	6.8	5.00 - 9.00	126387066
BFB Mass 50	1121680	95.0	225	20.1	15.0 - 40.0	126387066
BFB Mass 75	1121680	95.0	557	49.8	30.0 - 60.0	126387066
BFB Mass 95	1121680	95.0	1118	100.0	100 - 100	126387066
BFB Mass 96	1121680	95.0	73	6.5	5.00 - 9.00	126387066

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,1,1-Trichloroethane	1121680	ND	0.531	1.00	ug/L	126387070
1,1,2-Trichloroethane	1121680	ND	0.563	1.00	ug/L	126387070
1,1-Dichloroethane	1121680	ND	0.593	1.00	ug/L	126387070
1,1-Dichloroethylene	1121680	ND	0.574	1.00	ug/L	126387070
1,2-Dibromoethane (EDB)	1121680	ND	0.562	1.00	ug/L	126387070
1,2-Dichloroethane	1121680	ND	0.590	1.00	ug/L	126387070
1,2-Dichloropropane	1121680	ND	0.615	1.00	ug/L	126387070
Benzene	1121680	ND	0.453	1.00	ug/L	126387070
Bromodichloromethane	1121680	ND	0.409	1.00	ug/L	126387070
Bromoform	1121680	ND	0.500	1.00	ug/L	126387070
Carbon Tetrachloride	1121680	ND	0.299	1.00	ug/L	126387070
Chlorobenzene	1121680	ND	0.558	1.00	ug/L	126387070
Chloroethane	1121680	ND	1.12	1.12	ug/L	126387070
Chloroform	1121680	ND	0.463	1.00	ug/L	126387070
Chloromethane (Methyl Chloride)	1121680	ND	0.811	1.00	ug/L	126387070
cis-1,3-Dichloropropene	1121680	ND	0.660	1.00	ug/L	126387070
Dibromochloromethane	1121680	ND	0.311	1.00	ug/L	126387070
Dichloromethane	1121680	ND	1.02	1.02	ug/L	126387070
Ethylbenzene	1121680	ND	0.498	1.00	ug/L	126387070
m-Dichlorobenzene (1,3-DCB)	1121680	ND	0.619	1.00	ug/L	126387070
Methyl ethyl ketone (Butanone)	1121680	ND	0.742	1.00	ug/L	126387070
o-Dichlorobenzene (1,2-DCB)	1121680	0.620	0.532	1.00	ug/L	126387070
p-Dichlorobenzene (1,4-DCB)	1121680	ND	0.837	1.00	ug/L	126387070
Tetrachloroethylene	1121680	ND	0.607	1.00	ug/L	126387070
Toluene	1121680	ND	0.655	1.00	ug/L	126387070
trans-1,2-Dichloroethylene	1121680	ND	0.701	1.00	ug/L	126387070

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
trans-1,3-Dichloropropene	1121680	ND	0.627	1.00	ug/L	126387070
Trichloroethylene	1121680	ND	0.521	1.00	ug/L	126387070
Vinyl chloride	1121680	ND	0.702	1.00	ug/L	126387070

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	170700	179900	89970	269900	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	168300	179900	89970	269900	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	143200	179900	89970	269900	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	373700	398400	199200	597600	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	381600	398400	199200	597600	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	337200	398400	199200	597600	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	198000	179900	89970	269900	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	189800	179900	89970	269900	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	393500	398400	199200	597600	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	420500	398400	199200	597600	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	192300	179900	89970	269900	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	439200	398400	199200	597600	126387074	1121680

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS	11.97	11.97	11.91	12.03	126387068	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	LCS Dup	11.97	11.97	11.91	12.03	126387069	1121680
1,4-DichlorobenzeneD4 (ISTD)	1121680	Blank	11.97	11.97	11.91	12.03	126387070	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS	9.597	9.597	9.537	9.657	126387068	1121680
ChlorobenzeneD5 (ISTD)	1121680	LCS Dup	9.597	9.597	9.537	9.657	126387069	1121680
ChlorobenzeneD5 (ISTD)	1121680	Blank	9.597	9.597	9.537	9.657	126387070	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MS	11.98	11.97	11.91	12.03	126387072	1121680
1,4-DichlorobenzeneD4 (ISTD)	2301862	MSD	11.98	11.97	11.91	12.03	126387073	1121680
ChlorobenzeneD5 (ISTD)	2301862	MS	9.597	9.597	9.537	9.657	126387072	1121680
ChlorobenzeneD5 (ISTD)	2301862	MSD	9.597	9.597	9.537	9.657	126387073	1121680
1,4-DichlorobenzeneD4 (ISTD)	2302895	Unknown	11.97	11.97	11.91	12.03	126387074	1121680
ChlorobenzeneD5 (ISTD)	2302895	Unknown	9.597	9.597	9.537	9.657	126387074	1121680

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1121680	17.0	16.2	20.0	70.0 - 130	85.0	81.0	ug/L	4.82	21.0
1,1,2,2-Tetrachloroethane	1121680	18.3	17.9	20.0	60.0 - 140	91.5	89.5	ug/L	2.21	36.0
1,1,2-Trichloroethane	1121680	18.2	17.6	20.0	70.0 - 130	91.0	88.0	ug/L	3.35	27.0
1,1-Dichloroethane	1121680	17.6	16.6	20.0	70.0 - 130	88.0	83.0	ug/L	5.85	24.0
1,1-Dichloroethylene	1121680	17.1	16.2	20.0	50.0 - 150	85.5	81.0	ug/L	5.41	40.0
1,2-Dibromoethane (EDB)	1121680	18.4	17.5	20.0	78.4 - 122	92.0	87.5	ug/L	5.01	30.0
1,2-Dichloroethane	1121680	17.9	17.2	20.0	70.0 - 130	89.5	86.0	ug/L	3.99	29.0
1,2-Dichloropropane	1121680	18.0	17.2	20.0	35.0 - 165	90.0	86.0	ug/L	4.55	69.0
Benzene	1121680	17.1	16.4	20.0	65.0 - 135	85.5	82.0	ug/L	4.18	33.0
Bromodichloromethane	1121680	18.2	17.2	20.0	65.0 - 135	91.0	86.0	ug/L	5.65	34.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bromoform	1121680	17.4	17.0	20.0	70.0 - 130	87.0	85.0	ug/L	2.33	25.0
Bromomethane (Methyl Bromi	1121680	13.7	13.8	20.0	15.0 - 185	68.5	69.0	ug/L	0.727	90.0
Carbon Tetrachloride	1121680	17.6	16.9	20.0	70.0 - 130	88.0	84.5	ug/L	4.06	26.0
Chlorobenzene	1121680	18.0	17.2	20.0	65.0 - 135	90.0	86.0	ug/L	4.55	29.0
Chloroethane	1121680	15.2	15.0	20.0	40.0 - 160	76.0	75.0	ug/L	1.32	47.0
Chloroform	1121680	17.6	16.3	20.0	70.0 - 135	88.0	81.5	ug/L	7.67	32.0
Chloromethane (Methyl Chloride)	1121680	12.7	12.1	20.0	0.100 - 205	63.5	60.5	ug/L	4.84	472
cis-1,3-Dichloropropene	1121680	16.8	16.1	20.0	25.0 - 175	84.0	80.5	ug/L	4.26	79.0
Dibromochloromethane	1121680	18.5	17.6	20.0	70.0 - 135	92.5	88.0	ug/L	4.99	30.0
Dichloromethane	1121680	16.9	16.1	20.0	60.0 - 140	84.5	80.5	ug/L	4.85	192
Ethylbenzene	1121680	19.1	18.2	20.0	60.0 - 140	95.5	91.0	ug/L	4.83	34.0
m-Dichlorobenzene (1,3-DCB)	1121680	20.0	20.2	20.0	70.0 - 130	100	101	ug/L	0.995	24.0
Methyl ethyl ketone (Butanone)	1121680	18.6	16.8	20.0	62.3 - 136	93.0	84.0	ug/L	10.2	30.0
o-Dichlorobenzene (1,2-DCB)	1121680	18.9	18.4	20.0	65.0 - 135	94.5	92.0	ug/L	2.68	31.0
p-Dichlorobenzene (1,4-DCB)	1121680	18.7	18.7	20.0	65.0 - 135	93.5	93.5	ug/L	0	31.0
Tetrachloroethylene	1121680	19.0	18.4	20.0	70.0 - 130	95.0	92.0	ug/L	3.21	23.0
Toluene	1121680	17.3	16.5	20.0	70.0 - 130	86.5	82.5	ug/L	4.73	22.0
trans-1,2-Dichloroethylene	1121680	16.5	15.7	20.0	70.0 - 130	82.5	78.5	ug/L	4.97	27.0
trans-1,3-Dichloropropene	1121680	17.6	16.5	20.0	50.0 - 150	88.0	82.5	ug/L	6.45	52.0
Trichloroethylene	1121680	17.0	16.3	20.0	65.0 - 135	85.0	81.5	ug/L	4.20	29.0
Vinyl chloride	1121680	14.1	13.5	20.0	5.00 - 195	70.5	67.5	ug/L	4.35	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2301862	169	162	ND	200	52.0 - 162	84.5	81.0	ug/L	4.23	36.0
1,1,2,2-Tetrachloroethane	2301862	0	3.90	ND	200	70.0 - 130	*	1.95 *	ug/L		30.0
1,1,2-Trichloroethane	2301862	174	169	ND	200	52.0 - 150	87.0	84.5	ug/L	2.92	45.0
1,1-Dichloroethane	2301862	194	181	ND	200	59.0 - 155	97.0	90.5	ug/L	6.93	40.0
1,1-Dichloroethylene	2301862	182	173	ND	200	0.100 - 234	91.0	86.5	ug/L	5.07	32.0
1,2-Dibromoethane (EDB)	2301862	176	175	ND	200	49.3 - 120	88.0	87.5	ug/L	0.570	30.0
1,2-Dichloroethane	2301862	171	162	ND	200	49.0 - 155	85.5	81.0	ug/L	5.41	49.0
1,2-Dichloropropane	2301862	182	179	ND	200	0.100 - 210	91.0	89.5	ug/L	1.66	55.0
Benzene	2301862	183	171	ND	200	37.0 - 151	91.5	85.5	ug/L	6.78	61.0
Bromodichloromethane	2301862	166	163	ND	200	35.0 - 155	83.0	81.5	ug/L	1.82	56.0
Bromoform	2301862	87.1	91.9	ND	200	45.0 - 169	43.6 *	46.0	ug/L	5.36	42.0
Bromomethane (Methyl Bromi	2301862	117	113	ND	200	0.100 - 242	58.5	56.5	ug/L	3.48	61.0
Carbon Tetrachloride	2301862	161	147	ND	200	70.0 - 140	80.5	73.5	ug/L	9.09	41.0
Chlorobenzene	2301862	184	181	ND	200	37.0 - 160	92.0	90.5	ug/L	1.64	53.0
Chloroethane	2301862	160	150	ND	200	14.0 - 230	80.0	75.0	ug/L	6.45	78.0
Chloroform	2301862	184	168	ND	200	51.0 - 138	92.0	84.0	ug/L	9.09	54.0
Chloromethane (Methyl Chloride)	2301862	135	132	ND	200	0.100 - 273	67.5	66.0	ug/L	2.25	60.0
cis-1,3-Dichloropropene	2301862	168	165	ND	200	0.100 - 227	84.0	82.5	ug/L	1.80	58.0
Dibromochloromethane	2301862	161	160	ND	200	53.0 - 149	80.5	80.0	ug/L	0.623	50.0
Dichloromethane	2301862	170	164	ND	200	0.100 - 221	85.0	82.0	ug/L	3.59	28.0
Ethylbenzene	2301862	203	200	ND	200	37.0 - 162	102	100	ug/L	1.49	63.0

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
m-Dichlorobenzene (1,3-DCB)	2301862	216	227	ND	200	59.0 - 156	108	114	ug/L	4.97	43.0
Methyl ethyl ketone (Butanone)	2301862	0	0	ND	200	0.100 - 211	0 *	0 *	ug/L		30.0
o-Dichlorobenzene (1,2-DCB)	2301862	177	185	ND	200	18.0 - 190	88.5	92.5	ug/L	4.42	57.0
p-Dichlorobenzene (1,4-DCB)	2301862	191	217	ND	200	18.0 - 190	95.5	108	ug/L	12.7	57.0
Tetrachloroethylene	2301862	206	205	ND	200	64.0 - 148	103	102	ug/L	0.487	39.0
Toluene	2301862	182	176	ND	200	47.0 - 150	91.0	88.0	ug/L	3.35	41.0
trans-1,2-Dichloroethylene	2301862	166	154	ND	200	54.0 - 156	83.0	77.0	ug/L	7.50	45.0
trans-1,3-Dichloropropene	2301862	172	173	ND	200	17.0 - 183	86.0	86.5	ug/L	0.580	86.0
Trichloroethylene	2301862	348	342	ND	200	70.0 - 157	174 *	171 *	ug/L	1.74	48.0
Vinyl chloride	2301862	144	137	ND	200	0.100 - 251	72.0	68.5	ug/L	4.98	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1121680	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126387068
1,2-DCA-d4 (SURR)	1121680	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126387069
1,2-DCA-d4 (SURR)	1121680	Blank	20.6	20.0	ug/L	103	70.0 - 130	126387070
Bromofluorobenzene (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Bromofluorobenzene (SURR)	1121680	LCS Dup	20.2	20.0	ug/L	101	70.0 - 130	126387069
Bromofluorobenzene (SURR)	1121680	Blank	21.1	20.0	ug/L	106	70.0 - 130	126387070
Dibromofluoromethane (SURR)	1121680	LCS	20.0	20.0	ug/L	100	70.0 - 130	126387068
Dibromofluoromethane (SURR)	1121680	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	126387069
Dibromofluoromethane (SURR)	1121680	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126387070
TolueneD8 (SURR)	1121680	LCS	20.1	20.0	ug/L	100	70.0 - 130	126387068
TolueneD8 (SURR)	1121680	LCS Dup	19.7	20.0	ug/L	98.5	70.0 - 130	126387069
TolueneD8 (SURR)	1121680	Blank	20.0	20.0	ug/L	100	70.0 - 130	126387070
1,2-DCA-d4 (SURR)	2301862	MS	19.5	20.0	ug/L	97.5	70.0 - 130	126387072
1,2-DCA-d4 (SURR)	2301862	MSD	19.3	20.0	ug/L	96.5	70.0 - 130	126387073
Bromofluorobenzene (SURR)	2301862	MS	19.8	20.0	ug/L	99.0	70.0 - 130	126387072
Bromofluorobenzene (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
Dibromofluoromethane (SURR)	2301862	MS	18.8	20.0	ug/L	94.0	70.0 - 130	126387072
Dibromofluoromethane (SURR)	2301862	MSD	17.8	20.0	ug/L	89.0	70.0 - 130	126387073
TolueneD8 (SURR)	2301862	MS	20.9	20.0	ug/L	104	70.0 - 130	126387072
TolueneD8 (SURR)	2301862	MSD	20.7	20.0	ug/L	104	70.0 - 130	126387073
1,2-DCA-d4 (SURR)	2302895	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126387074
Bromofluorobenzene (SURR)	2302895	Unknown	20.6	20.0	ug/L	103	70.0 - 130	126387074
Dibromofluoromethane (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074
TolueneD8 (SURR)	2302895	Unknown	20.2	20.0	ug/L	101	70.0 - 130	126387074

Analytical Set

1122623

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
PCB-1016	1121972	ND	0.202	0.202	ug/L	126412989
PCB-1221	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1232	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1242	1121972	ND	0.192	0.200	ug/L	126412989

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Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1248	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1254	1121972	ND	0.143	0.200	ug/L	126412989
PCB-1260	1121972	ND	0.161	0.200	ug/L	126412989
PCB-1262	1121972	ND	0.198	0.200	ug/L	126412989
PCB-1268	1121972	ND	0.143	0.200	ug/L	126412989

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	968	1000	ug/L	96.8	80.0 - 115	126412978
PCB-1016	1140	1000	ug/L	114	80.0 - 115	126412988
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412997
PCB-1016	1170	1000	ug/L	117	80.0 - 115 *	126412998
PCB-1260	853	1000	ug/L	85.3	80.0 - 115	126412978
PCB-1260	939	1000	ug/L	93.9	80.0 - 115	126412988
PCB-1260	1010	1000	ug/L	101	80.0 - 115	126412997
PCB-1260	987	1000	ug/L	98.7	80.0 - 115	126412998

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1121972	941	859	1000	39.8 - 135	94.1	85.9	ug/L	9.11	30.0
PCB-1260	1121972	728	711	1000	36.1 - 134	72.8	71.1	ug/L	2.36	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1121972	Blank	55.6	100	ug/L	55.6	10.0 - 200	126412989
Tetrachloro-m-Xylene (Surr)	1121972	Blank	46.2	100	ug/L	46.2	10.0 - 200	126412989
Decachlorobiphenyl	2302895	Unknown	1.26	1.65	ug/L	76.4	10.0 - 200	126412995
Tetrachloro-m-Xylene (Surr)	2302895	Unknown	0.697	1.65	ug/L	42.2	10.0 - 200	126412995

Analytical Set

1122871

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1122298	ND	5.00	30.0	ug/L	126419398

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	293000	300000	ug/L	97.5	70.0 - 130	126419397
Nonylphenol	299000	300000	ug/L	99.7	70.0 - 130	126419405

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	760100	760100	380100	1140000	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	706900	760100	380100	1140000	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	981000	981000	490500	1471000	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	925500	981000	490500	1471000	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	681400	760100	380100	1140000	126419398	1122298

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IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	1122298	LCS	663100	760100	380100	1140000	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	581500	760100	380100	1140000	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	930700	981000	490500	1471000	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	890000	981000	490500	1471000	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	773800	981000	490500	1471000	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	536500	760100	380100	1140000	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	747500	981000	490500	1471000	126419403	1122298

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419397	624841
Acenaphthene-d10-ISTD	624841	CCV	7.294	7.294	7.234	7.354	126419405	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419397	624841
Phenanthrene-d10-ISTD	624841	CCV	8.538	8.538	8.478	8.598	126419405	624841
Acenaphthene-d10-ISTD	1122298	Blank	7.294	7.294	7.234	7.354	126419398	1122298
Acenaphthene-d10-ISTD	1122298	LCS	7.300	7.294	7.234	7.354	126419399	1122298
Acenaphthene-d10-ISTD	1122298	LCS Dup	7.300	7.294	7.234	7.354	126419400	1122298
Phenanthrene-d10-ISTD	1122298	Blank	8.532	8.538	8.478	8.598	126419398	1122298
Phenanthrene-d10-ISTD	1122298	LCS	8.538	8.538	8.478	8.598	126419399	1122298
Phenanthrene-d10-ISTD	1122298	LCS Dup	8.538	8.538	8.478	8.598	126419400	1122298
Acenaphthene-d10-ISTD	2302895	Unknown	7.294	7.294	7.234	7.354	126419403	1122298
Phenanthrene-d10-ISTD	2302895	Unknown	8.532	8.538	8.478	8.598	126419403	1122298

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1122298	124	127	150	56.0 - 112	82.7	84.7	ug/L	2.39	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	624841	CCV	49000	50000	ug/L	98.0	50.0 - 130	126419397
4-Nonylphenol-SURR	624841	CCV	50600	50000	ug/L	101	50.0 - 130	126419405
4-Nonylphenol-SURR	1122298	Blank	21600	25000	ug/L	86.4	50.0 - 130	126419398
4-Nonylphenol-SURR	1122298	LCS	22400	25000	ug/L	89.6	50.0 - 130	126419399
4-Nonylphenol-SURR	1122298	LCS Dup	23800	25000	ug/L	95.2	50.0 - 130	126419400
4-Nonylphenol-SURR	2302895	Unknown	24.8	28.0	ug/L	88.6	50.0 - 130	126419403

Analytical Set

1124511

EPA 625.1

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1121954	ND	1.03	1.03	ug/L	126461237
1,2,4-Trichlorobenzene	1121954	ND	0.941	1.00	ug/L	126461237
1,2-Dichlorobenzene	1121954	ND	1.04	5.00	ug/L	126461237
1,2-DPH (as azobenzene)	1121954	ND	0.238	1.00	ug/L	126461237
1,3-Dichlorobenzene	1121954	ND	0.954	5.00	ug/L	126461237
1,4-Dichlorobenzene	1121954	ND	1.01	5.00	ug/L	126461237
2,4,5-Trichlorophenol	1121954	ND	0.961	5.00	ug/L	126461237

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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
2,4,6-Trichlorophenol	1121954	ND	1.24	2.00	ug/L	126461237
2,4-Dichlorophenol	1121954	ND	0.222	1.00	ug/L	126461237
2,4-Dimethylphenol	1121954	ND	0.536	1.00	ug/L	126461237
2,4-Dinitrophenol	1121954	ND	1.34	2.00	ug/L	126461237
2,4-Dinitrotoluene	1121954	ND	1.35	2.00	ug/L	126461237
2,6-Dinitrotoluene	1121954	ND	1.29	2.00	ug/L	126461237
2-Chloronaphthalene	1121954	ND	0.150	1.00	ug/L	126461237
2-Chlorophenol	1121954	ND	0.275	1.00	ug/L	126461237
2-Methylphenol (o-Cresol)	1121954	ND	8.48	10.0	ug/L	126461237
2-Nitrophenol	1121954	ND	0.554	1.00	ug/L	126461237
3&4-Methylphenol (m&p-Cresol)	1121954	ND	7.78	8.00	ug/L	126461237
3,3'-Dichlorobenzidine	1121954	ND	1.39	2.00	ug/L	126461237
4,6-Dinitro-2-methylphenol	1121954	ND	1.15	2.00	ug/L	126461237
4-Bromophenyl phenyl ether	1121954	ND	0.772	1.00	ug/L	126461237
4-Chlorophenyl phenyl ethe	1121954	ND	0.202	1.00	ug/L	126461237
4-Nitrophenol	1121954	ND	0.789	1.00	ug/L	126461237
Acenaphthene	1121954	ND	0.177	1.00	ug/L	126461237
Acenaphthylene	1121954	ND	0.240	1.00	ug/L	126461237
Aniline	1121954	ND	2470	2470	ug/L	126461237
Anthracene	1121954	ND	0.241	1.00	ug/L	126461237
Benzidine	1121954	ND	1.40	1.50	ug/L	126461237
Benzo(a)anthracene	1121954	ND	0.225	1.00	ug/L	126461237
Benzo(a)pyrene	1121954	ND	0.900	1.00	ug/L	126461237
Benzo(b)fluoranthene	1121954	ND	0.547	1.00	ug/L	126461237
Benzo(ghi)perylene	1121954	ND	0.881	1.00	ug/L	126461237
Benzo(k)fluoranthene	1121954	ND	0.252	1.00	ug/L	126461237
Benzyl Butyl phthalate	1121954	0.370	0.204	7.50	ug/L	126461237
Bis(2-chloroethoxy)methane	1121954	ND	0.277	1.00	ug/L	126461237
Bis(2-chloroethyl)ether	1121954	ND	0.348	1.00	ug/L	126461237
Bis(2-chloroisopropyl)ether	1121954	ND	0.738	1.00	ug/L	126461237
Bis(2-ethylhexyl)phthalate	1121954	ND	1.12	7.50	ug/L	126461237
Chrysene (Benzo(a)phenanthrene)	1121954	ND	0.289	1.00	ug/L	126461237
Dibenz(a,h)anthracene	1121954	ND	0.689	1.00	ug/L	126461237
Diethyl phthalate	1121954	ND	0.253	5.70	ug/L	126461237
Dimethyl phthalate	1121954	ND	0.540	4.80	ug/L	126461237
Di-n-butylphthalate	1121954	ND	0.978	7.50	ug/L	126461237
Di-n-octylphthalate	1121954	ND	1.92	2.00	ug/L	126461237
Fluoranthene(Benzo(j,k)fluorene)	1121954	ND	0.318	1.00	ug/L	126461237
Fluorene	1121954	ND	0.275	1.00	ug/L	126461237
Hexachlorobenzene	1121954	ND	0.871	1.00	ug/L	126461237
Hexachlorobutadiene	1121954	ND	1.03	1.03	ug/L	126461237
Hexachlorocyclopentadiene	1121954	ND	0.536	1.00	ug/L	126461237
Hexachloroethane	1121954	ND	1.05	2.00	ug/L	126461237
Indeno(1,2,3-cd)pyrene	1121954	ND	0.596	1.00	ug/L	126461237
Isophorone	1121954	ND	0.429	1.00	ug/L	126461237

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Naphthalene	1121954	ND	0.225	1.00	ug/L	126461237
Nitrobenzene	1121954	ND	0.271	1.00	ug/L	126461237
n-Nitrosodiethylamine	1121954	ND	0.747	1.00	ug/L	126461237
N-Nitrosodimethylamine	1121954	ND	0.542	1.00	ug/L	126461237
n-Nitroso-di-n-butylamine	1121954	ND	0.210	1.00	ug/L	126461237
N-Nitrosodi-n-propylamine	1121954	ND	0.425	1.00	ug/L	126461237
N-Nitrosodiphenylamine (as DPA)	1121954	ND	0.404	1.00	ug/L	126461237
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	ND	0.588	1.00	ug/L	126461237
Pentachlorobenzene	1121954	ND	0.977	1.00	ug/L	126461237
Pentachlorophenol	1121954	ND	0.960	5.00	ug/L	126461237
Phenanthrene	1121954	ND	0.269	1.00	ug/L	126461237
Phenol	1121954	ND	0.332	1.00	ug/L	126461237
Pyrene	1121954	ND	0.291	1.00	ug/L	126461237
Pyridine	1121954	ND	1.35	1.35	ug/L	126461237

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
1,2,4,5-Tetrachlorobenzene	48200	50000	ug/L	96.4	60.0 - 140	126461236
1,2,4-Trichlorobenzene	48600	50000	ug/L	97.2	61.0 - 130	126461236
1,2-Dichlorobenzene	47800	50000	ug/L	95.6	60.0 - 140	126461236
1,2-DPH (as azobenzene)	53400	50000	ug/L	107	60.0 - 140	126461236
1,3-Dichlorobenzene	43700	50000	ug/L	87.4	60.0 - 140	126461236
1,4-Dichlorobenzene	42500	50000	ug/L	85.0	60.0 - 140	126461236
2,4,5-Trichlorophenol	49400	50000	ug/L	98.8	69.0 - 130	126461236
2,4,6-Trichlorophenol	46000	50000	ug/L	92.0	69.0 - 130	126461236
2,4-Dichlorophenol	44700	50000	ug/L	89.4	64.0 - 130	126461236
2,4-Dimethylphenol	42200	50000	ug/L	84.4	58.0 - 130	126461236
2,4-Dinitrophenol	45400	50000	ug/L	90.8	39.0 - 173	126461236
2,4-Dinitrotoluene	50900	50000	ug/L	102	53.0 - 130	126461236
2,6-Dinitrotoluene	52000	50000	ug/L	104	68.0 - 137	126461236
2-Chloronaphthalene	41500	50000	ug/L	83.0	70.0 - 130	126461236
2-Chlorophenol	43300	50000	ug/L	86.6	55.0 - 130	126461236
2-Methylphenol (o-Cresol)	37700	50000	ug/L	75.4	60.0 - 140	126461236
2-Nitrophenol	46200	50000	ug/L	92.4	61.0 - 163	126461236
3&4-Methylphenol (m&p-Cresol)	38700	50000	ug/L	77.4	60.0 - 140	126461236
3,3'-Dichlorobenzidine	60900	50000	ug/L	122	18.0 - 213	126461236
4,6-Dinitro-2-methylphenol	47400	50000	ug/L	94.8	56.0 - 130	126461236
4-Bromophenyl phenyl ether	49400	50000	ug/L	98.8	70.0 - 130	126461236
4-Chlorophenyl phenyl ethe	46500	50000	ug/L	93.0	57.0 - 145	126461236
4-Nitrophenol	46000	50000	ug/L	92.0	35.0 - 135	126461236
Acenaphthene	50100	50000	ug/L	100	70.0 - 130	126461236
Acenaphthylene	50000	50000	ug/L	100	60.0 - 130	126461236
Aniline	39000	50000	ug/L	78.0	60.0 - 140	126461236
Anthracene	50700	50000	ug/L	101	58.0 - 130	126461236
Benzidine	27600	50000	ug/L	55.2	20.0 - 180	126461236

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Benzo(a)anthracene	50000	50000	ug/L	100	42.0 - 133	126461236
Benzo(a)pyrene	52000	50000	ug/L	104	32.0 - 148	126461236
Benzo(b)fluoranthene	47300	50000	ug/L	94.6	42.0 - 140	126461236
Benzo(ghi)perylene	50600	50000	ug/L	101	13.0 - 195	126461236
Benzo(k)fluoranthene	52400	50000	ug/L	105	25.0 - 146	126461236
Benzy l Butyl phthalate	51600	50000	ug/L	103	43.0 - 140	126461236
Bis(2-chloroethoxy)methane	49600	50000	ug/L	99.2	52.0 - 164	126461236
Bis(2-chloroethyl)ether	44400	50000	ug/L	88.8	52.0 - 130	126461236
Bis(2-chloroisopropyl)ether	47500	50000	ug/L	95.0	63.0 - 139	126461236
Bis(2-ethylhexyl)phthalate	44600	50000	ug/L	89.2	43.0 - 137	126461236
Chrysene (Benzo(a)phenanthrene)	49100	50000	ug/L	98.2	44.0 - 140	126461236
Dibenz(a,h)anthracene	55000	50000	ug/L	110	13.0 - 200	126461236
Diethyl phthalate	50000	50000	ug/L	100	47.0 - 130	126461236
Dimethyl phthalate	51200	50000	ug/L	102	50.0 - 130	126461236
Di-n-butylphthalate	48900	50000	ug/L	97.8	52.0 - 130	126461236
Di-n-octylphthalate	48600	50000	ug/L	97.2	21.0 - 132	126461236
Fluoranthene(Benzo(j,k)fluorene)	49000	50000	ug/L	98.0	47.0 - 130	126461236
Fluorene	49100	50000	ug/L	98.2	70.0 - 130	126461236
Hexachlorobenzene	50400	50000	ug/L	101	38.0 - 142	126461236
Hexachlorobutadiene	45900	50000	ug/L	91.8	68.0 - 130	126461236
Hexachlorocyclopentadiene	43600	50000	ug/L	87.2	60.0 - 140	126461236
Hexachloroethane	45100	50000	ug/L	90.2	55.0 - 130	126461236
Indeno(1,2,3-cd)pyrene	46000	50000	ug/L	92.0	13.0 - 151	126461236
Isophorone	56000	50000	ug/L	112	52.0 - 180	126461236
Naphthalene	47000	50000	ug/L	94.0	70.0 - 130	126461236
Nitrobenzene	40000	50000	ug/L	80.0	54.0 - 158	126461236
n-Nitrosodiethylamine	77500	50000	ug/L	155	60.0 - 140	* 126461236
N-Nitrosodimethylamine	42400	50000	ug/L	84.8	60.0 - 140	126461236
n-Nitroso-di-n-butylamine	46600	50000	ug/L	93.2	60.0 - 140	126461236
N-Nitrosodi-n-propylamine	47900	50000	ug/L	95.8	59.0 - 170	126461236
N-Nitrosodiphenylamine (as DPA	43500	50000	ug/L	87.0	60.0 - 140	126461236
p-Chloro-m-Cresol (4-Chloro-3-me	43800	50000	ug/L	87.6	68.0 - 130	126461236
Pentachlorobenzene	45500	50000	ug/L	91.0	60.0 - 140	126461236
Pentachlorophenol	46600	50000	ug/L	93.2	42.0 - 152	126461236
Phenanthrene	45600	50000	ug/L	91.2	67.0 - 130	126461236
Phenol	38600	50000	ug/L	77.2	48.0 - 130	126461236
Pyrene	47400	50000	ug/L	94.8	70.0 - 130	126461236
Pyridine	42800	50000	ug/L	85.6	60.0 - 140	126461236

DFTPP

<u>Parameter</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>	
DFTPP Mass 127	625102	198	57901	52.8	40.0 - 60.0	126461234
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126461234
DFTPP Mass 198	625102	198	109643	100.0	100 - 100	126461234
DFTPP Mass 199	625102	198	7184	6.6	5.00 - 9.00	126461234

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 275	625102	198	32486	29.6	10.0 - 30.0	126461234
DFTPP Mass 365	625102	198	7319	6.7	1.00 - 100	126461234
DFTPP Mass 441	625102	443	3494	16.8	0 - 100	126461234
DFTPP Mass 442	625102	198	107965	98.5	40.0 - 100	126461234
DFTPP Mass 443	625102	442	20743	19.2	17.0 - 23.0	126461234
DFTPP Mass 51	625102	198	35046	32.0	30.0 - 60.0	126461234
DFTPP Mass 68	625102	69.0	0	0.0	0 - 2.00	126461234
DFTPP Mass 69	625102	198	37536	34.2	0 - 100	126461234
DFTPP Mass 70	625102	69.0	0	0.0	0 - 2.00	126461234

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1121954	10.7	10.2	12.5	27.5 - 85.5	85.6 *	81.6	ug/L	4.78	50.0
1,2,4-Trichlorobenzene	1121954	11.3	9.13	12.5	44.0 - 142	90.4	73.0	ug/L	21.3	50.0
1,2-Dichlorobenzene	1121954	10.1	9.32	12.5	23.0 - 81.8	80.8	74.6	ug/L	7.98	50.0
1,2-DPH (as azobenzene)	1121954	11.9	10.2	12.5	12.6 - 110	95.2	81.6	ug/L	15.4	50.0
1,3-Dichlorobenzene	1121954	10.6	9.26	12.5	21.1 - 80.5	84.8 *	74.1	ug/L	13.5	50.0
1,4-Dichlorobenzene	1121954	10.4	8.53	12.5	21.4 - 76.9	83.2 *	68.2	ug/L	19.8	50.0
2,4,5-Trichlorophenol	1121954	12.7	11.5	12.5	51.3 - 109	102	92.0	ug/L	10.3	50.0
2,4,6-Trichlorophenol	1121954	12.7	11.6	12.5	37.0 - 144	102	92.8	ug/L	9.45	58.0
2,4-Dichlorophenol	1121954	10.8	9.67	12.5	39.0 - 135	86.4	77.4	ug/L	11.0	50.0
2,4-Dimethylphenol	1121954	1.29	1.02	12.5	23.0 - 120	10.3 *	8.16 *	ug/L	23.2	68.0
2,4-Dinitrophenol	1121954	11.1	13.4	12.5	0.100 - 191	88.8	107	ug/L	18.6	132
2,4-Dinitrotoluene	1121954	10.7	12.6	12.5	39.0 - 139	85.6	101	ug/L	16.5	42.0
2,6-Dinitrotoluene	1121954	10.8	12.4	12.5	50.0 - 158	86.4	99.2	ug/L	13.8	48.0
2-Chloronaphthalene	1121954	12.3	9.87	12.5	60.0 - 120	98.4	79.0	ug/L	21.9	24.0
2-Chlorophenol	1121954	11.0	10.1	12.5	23.0 - 134	88.0	80.8	ug/L	8.53	61.0
2-Methylphenol (o-Cresol)	1121954	7.81	7.89	12.5	38.9 - 76.1	62.5	63.1	ug/L	0.955	50.0
2-Nitrophenol	1121954	12.2	10.2	12.5	29.0 - 182	97.6	81.6	ug/L	17.9	55.0
3&4-Methylphenol (m&p-Cresol)	1121954	6.93	6.20	12.5	33.0 - 70.4	55.4	49.6	ug/L	11.0	50.0
3,3'-Dichlorobenzidine	1121954	9.98	8.09	12.5	0.100 - 262	79.8	64.7	ug/L	20.9	108
4,6-Dinitro-2-methylphenol	1121954	10.7	10.6	12.5	0.100 - 181	85.6	84.8	ug/L	0.939	203
4-Bromophenyl phenyl ether	1121954	12.6	11.3	12.5	53.0 - 127	101	90.4	ug/L	11.1	43.0
4-Chlorophenyl phenyl ether	1121954	10.8	11.4	12.5	25.0 - 158	86.4	91.2	ug/L	5.41	61.0
4-Nitrophenol	1121954	3.82	5.60	12.5	0.100 - 132	30.6	44.8	ug/L	37.7	131
Acenaphthene	1121954	12.1	12.3	12.5	47.0 - 145	96.8	98.4	ug/L	1.64	48.0
Acenaphthylene	1121954	11.6	10.7	12.5	33.0 - 145	92.8	85.6	ug/L	8.07	74.0
Aniline	1121954	7890	7210	12500	70.0 - 130	63.1 *	57.7 *	ug/L	8.94	50.0
Anthracene	1121954	12.4	10.5	12.5	27.0 - 133	99.2	84.0	ug/L	16.6	66.0
Benzo(a)anthracene	1121954	11.1	10.5	12.5	33.0 - 143	88.8	84.0	ug/L	5.56	53.0
Benzo(a)pyrene	1121954	11.4	10.9	12.5	17.0 - 163	91.2	87.2	ug/L	4.48	72.0
Benzo(b)fluoranthene	1121954	10.3	10.4	12.5	24.0 - 159	82.4	83.2	ug/L	0.966	71.0
Benzo(ghi)perylene	1121954	12.3	11.1	12.5	0.100 - 219	98.4	88.8	ug/L	10.3	97.0
Benzo(k)fluoranthene	1121954	12.4	12.2	12.5	11.0 - 162	99.2	97.6	ug/L	1.63	63.0
Benzyl Butyl phthalate	1121954	11.8	10.8	12.5	0.100 - 152	94.4	86.4	ug/L	8.85	60.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bis(2-chloroethoxy)methane	1121954	12.5	10.6	12.5	33.0 - 184	100	84.8	ug/L	16.5	54.0
Bis(2-chloroethyl)ether	1121954	11.9	10.2	12.5	12.0 - 158	95.2	81.6	ug/L	15.4	108
Bis(2-chloroisopropyl)ether	1121954	11.9	12.6	12.5	36.0 - 166	95.2	101	ug/L	5.91	76.0
Bis(2-ethylhexyl)phthalate	1121954	12.5	12.6	12.5	8.00 - 158	100	101	ug/L	0.995	82.0
Chrysene (Benzo(a)phenanthrene)	1121954	11.5	9.88	12.5	17.0 - 168	92.0	79.0	ug/L	15.2	87.0
Dibenz(a,h)anthracene	1121954	12.0	10.7	12.5	0.100 - 227	96.0	85.6	ug/L	11.5	126
Diethyl phthalate	1121954	12.2	12.1	12.5	0.100 - 120	97.6	96.8	ug/L	0.823	100
Dimethyl phthalate	1121954	11.4	11.8	12.5	0.100 - 120	91.2	94.4	ug/L	3.45	183
Di-n-butylphthalate	1121954	13.1	11.0	12.5	1.00 - 120	105	88.0	ug/L	17.6	47.0
Di-n-octylphthalate	1121954	11.2	11.2	12.5	4.00 - 146	89.6	89.6	ug/L	0	69.0
Fluoranthene(Benzo(j,k)fluorene)	1121954	12.9	12.4	12.5	26.0 - 137	103	99.2	ug/L	3.76	66.0
Fluorene	1121954	11.5	12.3	12.5	59.0 - 121	92.0	98.4	ug/L	6.72	38.0
Hexachlorobenzene	1121954	12.2	10.9	12.5	0.100 - 152	97.6	87.2	ug/L	11.3	55.0
Hexachlorobutadiene	1121954	10.6	7.47	12.5	24.0 - 120	84.8	59.8	ug/L	34.6	62.0
Hexachlorocyclopentadiene	1121954	7.27	7.00	12.5	3.97 - 68.7	58.2	56.0	ug/L	3.85	50.0
Hexachloroethane	1121954	9.64	7.78	12.5	40.0 - 120	77.1	62.2	ug/L	21.4	52.0
Indeno(1,2,3-cd)pyrene	1121954	12.2	10.6	12.5	0.100 - 171	97.6	84.8	ug/L	14.0	99.0
Isophorone	1121954	12.0	11.1	12.5	21.0 - 196	96.0	88.8	ug/L	7.79	93.0
Naphthalene	1121954	10.6	9.59	12.5	21.0 - 133	84.8	76.7	ug/L	10.0	65.0
Nitrobenzene	1121954	10.9	8.82	12.5	35.0 - 180	87.2	70.6	ug/L	21.0	62.0
n-Nitrosodiethylamine	1121954	23.7	20.1	12.5	18.0 - 100	190 *	161 *	ug/L	16.5	50.0
N-Nitrosodimethylamine	1121954	7.94	7.85	12.5	30.2 - 74.9	63.5	62.8	ug/L	1.11	50.0
n-Nitroso-di-n-butylamine	1121954	11.1	12.2	12.5	48.4 - 98.5	88.8	97.6	ug/L	9.44	50.0
N-Nitrosodi-n-propylamine	1121954	12.4	10.7	12.5	0.100 - 230	99.2	85.6	ug/L	14.7	87.0
N-Nitrosodiphenylamine (as DPA)	1121954	10.8	9.96	12.5	49.3 - 94.2	86.4	79.7	ug/L	8.07	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1121954	9.94	11.8	12.5	22.0 - 147	79.5	94.4	ug/L	17.1	70.0
Pentachlorobenzene	1121954	9.99	10.6	12.5	39.3 - 93.7	79.9	84.8	ug/L	5.95	50.0
Pentachlorophenol	1121954	11.4	11.9	12.5	14.0 - 176	91.2	95.2	ug/L	4.29	86.0
Phenanthrene	1121954	12.0	11.4	12.5	54.0 - 120	96.0	91.2	ug/L	5.13	39.0
Phenol	1121954	5.05	4.83	12.5	5.00 - 120	40.4	38.6	ug/L	4.56	64.0
Pyrene	1121954	10.5	10.5	12.5	52.0 - 120	84.0	84.0	ug/L	0	49.0
Pyridine	1121954	6.50	5.82	12.5	11.2 - 50.6	52.0 *	46.6	ug/L	11.0	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126461236
2-Fluorophenol-SURR	625306	CCV	39200	100000	ug/L	39.2	10.0 - 150	126461236
4-Terphenyl-d14-SURR	625306	CCV	40600	50000	ug/L	81.2	30.0 - 150	126461236
Nitrobenzene-d5-SURR	625306	CCV	43500	50000	ug/L	87.0	30.0 - 150	126461236
Phenol-d6-SURR	625306	CCV	44100	100000	ug/L	44.1	10.0 - 150	126461236
2,4,6-Tribromophenol	1121954	Blank	66.8	100	ug/L	66.8	10.0 - 150	126461237
2,4,6-Tribromophenol	1121954	LCS	61.8	100	ug/L	61.8	10.0 - 150	126461238
2,4,6-Tribromophenol	1121954	LCS Dup	64.6	100	ug/L	64.6	10.0 - 150	126461239
2-Fluorophenol-SURR	1121954	Blank	31400	100000	ug/L	31.4	10.0 - 150	126461237
2-Fluorophenol-SURR	1121954	LCS	36400	100000	ug/L	36.4	10.0 - 150	126461238

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2-Fluorophenol-SURR	1121954	LCS Dup	33800	100000	ug/L	33.8	10.0 - 150	126461239
4-Terphenyl-d14-SURR	1121954	Blank	35400	50000	ug/L	70.8	30.0 - 150	126461237
4-Terphenyl-d14-SURR	1121954	LCS	19500	50000	ug/L	39.0	30.0 - 150	126461238
4-Terphenyl-d14-SURR	1121954	LCS Dup	19500	50000	ug/L	39.0	30.0 - 150	126461239
Nitrobenzene-d5-SURR	1121954	Blank	43700	50000	ug/L	87.4	30.0 - 150	126461237
Nitrobenzene-d5-SURR	1121954	LCS	20900	50000	ug/L	41.8	30.0 - 150	126461238
Nitrobenzene-d5-SURR	1121954	LCS Dup	17300	50000	ug/L	34.6	30.0 - 150	126461239
Phenol-d6-SURR	1121954	Blank	27800	100000	ug/L	27.8	10.0 - 150	126461237
Phenol-d6-SURR	1121954	LCS	25900	100000	ug/L	25.9	10.0 - 150	126461238
Phenol-d6-SURR	1121954	LCS Dup	24500	100000	ug/L	24.5	10.0 - 150	126461239
2,4,6-Tribromophenol	2302895	Unknown	76.1	98.8	ug/L	77.0	10.0 - 150	126461243
2-Fluorophenol-SURR	2302895	Unknown	41.1	98.8	ug/L	41.6	10.0 - 150	126461243
4-Terphenyl-d14-SURR	2302895	Unknown	35.3	49.4	ug/L	71.5	30.0 - 150	126461243
Nitrobenzene-d5-SURR	2302895	Unknown	36.1	49.4	ug/L	73.1	30.0 - 150	126461243
Phenol-d6-SURR	2302895	Unknown	28.9	98.8	ug/L	29.3	10.0 - 150	126461243

Analytical Set

1121775

SM 5220 D-2011

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chemical Oxygen Demand	422	400	mg/L	106	90.0 - 110	126389115

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Chemical Oxygen Demand	2302625	ND	ND	mg/L		20.0
Chemical Oxygen Demand	2303054	32.7	30.5	mg/L	6.96	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Chemical Oxygen Demand	1121775	203	200	mg/L	102	90.0 - 110	126389116

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Chemical Oxygen Demand	2302625	238	ND	220	mg/L	108	80.0 - 120	126389119
Chemical Oxygen Demand	2303054	253	30.5	220	mg/L	101	80.0 - 120	126389128

Analytical Set

1121996

SM 4500-P E-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.0662	0.060	mg/L	110	70.0 - 130	126393751

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Phosphorus (as P), total	1121996	ND	0.00311	0.00311	mg/L	126393749

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Phosphorus (as P), total	0.312	0.300	mg/L	104	90.0 - 110	126393752
Phosphorus (as P), total	0.306	0.300	mg/L	102	90.0 - 110	126393767
Phosphorus (as P), total	0.309	0.300	mg/L	103	90.0 - 110	126394129

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	1121996	0.307	0.299	0.300	80.0 - 120	102	99.7	mg/L	2.64	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	2302930	0.265	0.257	0.120	0.150	70.0 - 130	96.7	91.3	mg/L	5.67	20.0
Phosphorus (as P), total	2302931	0.345	0.331	0.191	0.150	70.0 - 130	103	93.3	mg/L	9.52	20.0

Analytical Set **1122797**

SM 2320 B-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1122797	ND	1.00	1.00	mg/L	126418426

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	24.5	25.0	mg/L	98.0	90.0 - 110	126418425
Total Alkalinity (as CaCO3)	25.4	25.0	mg/L	102	90.0 - 110	126418438

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2302842	785	789	mg/L	0.508	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126418424

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2302842	819	789	25.0	mg/L	120	70.0 - 130	126418429

Analytical Set **1123697**

SM 2130 B-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0

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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r_1-r_2) / \text{mean}(r_1,r_2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; ICV - Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound

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SPACE X
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Space Exploration Technologies
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Brownsville, TX 78521

SPAC-R
188

Printed 02/28/2024 Page 1 of 2
Lab Number 2302893 Mandatory
PO Number 2605353
Phone 956/543-6688

Effluent

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zachary Smith
Sampler Affiliation: SpaceX
Sampler Signature: Zachary Smith

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

0 On Site Testing

pH Client Provided SM 4500-H+ B-2011

pH Client Provided

Collected By ZS Date 5/29/24 Time 0830 Analyzed By ZS Date 5/29/24 Time 0830

Results 7.51 Units SU Temp. 28.1 °C Duplicate 7.51 Units SU Temp. 28.1 °C

1 Polyethylene 1/2 gal (White)

Short Hold NELAC BODc BOD Carbonaceous SM 5210 B-2016 (TCMP Inhibitor) (2.00 days)



RGV Region: 2401 Village Dr. Suite C Brownsville TX 78521

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Mandatory .
 Phone 956/543-6688

1 Polyethylene Quart

NELAC Short Hold TURB Turbidity SM 2130 B-2011 (2.00 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: Zachary Smith Affiliation: SPACEX Signature: [Signature]	5/29 0932	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]
5/29/24 9:32	Printed Name: Leo Munoz Affiliation: [Affiliation] Signature: [Signature]	5/29/24 9:32	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]
5/29/24 17:30	Printed Name: [Signature] Affiliation: SPL Signature: [Signature]	5/29/24 17:30	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx
5/30/24 1110	Printed Name: [Signature] Affiliation: FedEx Signature: FedEx	5-30-24 1110	Printed Name: Andy Owens - SPL, Inc. Affiliation: [Affiliation] Signature: [Signature]

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No IF Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAC, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP #000323.

Comments



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SPACE X
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Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

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178

Lab Number 2302894
Mandatory 2605353
PO Number 2605353
Phone 956/543-6688

INFLUENT

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5/29/24 Time: 0830
Sampler Printed Name: Zochacz, SM
Sampler Affiliation: SPACE X
Sampler Signature: [Signature]

Samples Radioactive? Samples Contain Dioxin? Samples Biological Hazard?

Polyethylene 1/2 gal (White)

NELAC Short Hold BOD Biochemical Oxygen Demand (BOD5) SM 5210 B-2016 CAS:1026-3 (2.04 days)

H2SO4 to pH < 2 250 ml Polyethylene

NELAC NH4N Ammonia Nitrogen EPA 350.1 2 (28.0 days)

Ambient Conditions/Comments

Date Time	Relinquished	Date Time	Received
5/29/24 0900	Printed Name: <u>Zochacz, SM</u> Signature: <u>[Signature]</u> Affiliation: <u>SPACE X</u>	06/29 0903	Printed Name: <u>Leo Munoz</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>
5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>	5/29/24 9:32	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>
5/29/24 12:30	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>SPL</u>	5/29/24 12:13	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>FedEx</u>
5/30/24 1110	Printed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Affiliation: <u>FedEx</u>	5/30/24 1110	Printed Name: <u>Andy Owens - SPL, Inc.</u> Signature: <u>[Signature]</u> Affiliation: <u>[Affiliation]</u>



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1 Rocket Rd
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**SPAC-R
194**

Lab Number 2302895
PO Number _____ Mandatory
Phone 956/543-6688

Waste Water

Retention Pond

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 5.28.24 Time: 3:50 PM

Sampler Printed Name: CAROLYN WOOD

Sampler Affiliation: SPACE X

Sampler Signature: Carolyn A. Wood

Sample Radioactive?

Sample Contains Dioxin?

Sample Biological Hazard?

On Site Testing

NELAC C20 C12 Res., Total(Onsite)Spec Mid SM 4500-CI G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

*by client
Total C12
0.2 mg/L*

~~C12~~ Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 5.28.24 Time 3:50 P Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QCR1 _____ QCR2 _____

NELAC Short Hold Cr6 Hex Cr. Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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**SPAC-R
194**

Hex Cr, Field Preservation

Collected By CW Date 5-28-24 Time 3:57p Analyzed By Jmz Date 5/28/24 Time 18:40

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

NELAC Short Hold pH pH (Onsite) SM 4500-H - B-2011 (0.0104 days)

pH (Onsite)

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

*by client
pH 6.97*

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

S2C2 Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CW Date 5-28-24 Time 3:50p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QC R1 _____ QC R2 _____

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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Office: 903-984-0551 * Fax: 903-984-5914

**CHAIN OF CUSTODY**

Printed 05/27/2024

Page 3 of 6

SPACE X
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
194

Temperature (conts)

Collected By CW Date 5.25.24 Time 3:52p Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Duplicate _____ Units _____

2 Amber Glass Qt w/Teflon lined lid			
NELAC	ID25	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	IPCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)
2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid			
NELAC	Short Hold	SAAB Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
2 H2SO4 to pH <2 GIQt w/Tef-lined lid			
	NYPB	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
1 H2SO4 to pH <2 GIQt w/Tef-lined lid			
NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
1 Polyethylene 1/2 gal (White)			
NELAC	Short Hold	BOD Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC	Short Hold	BODc BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC		TSS Total Suspended Solids	SM 2540 D-2015 (7.00 days)
0 Z - No bottle required			
	CKLM	Check Limits	
NELAC	Short Hold	Cr+3 Trivalent Chromium	Calculation CAS:16065-R3-1 (1.00 days)
1 HNO3 to pH <2 Polyethylene 500 mL for Metals			
NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



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NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold **ID2V** Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	ODD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH4N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TFWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mL w/Teflon lined lid

NELAC **TOCL** Total Organic Carbon SM 5310 C-2014 (28.0 days)



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194**

2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN-A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CNCl	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	ICL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	IFL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	INL	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	ISL	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AKT	Total Alkalinity (as CaCO3)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
5-28-24	6:20 pm	Carolyn Wood	SPACE	[Signature]	SPL
5/19/24	12:12	[Signature]	SPL	FedEx	
		[Signature]	FedEx		



1
2
3
4

1105141 CoC Print Group 001 of 001

ORIGIN ID: HRLA
 ANA LAB / REV
 2401 VILLAGE DR ST
 BROWNSVILLE, TX 77801
 UNITED STATES US

SHIP DATE: 28MAY24
 ACTWT: 70.05 LB
 CAD: 6894257/SSFE2500
 DIMS: 24x14x13 IN

BILL THIRD PARTY

TO **SPL**
LOGIN
2600 DUDLE RD
KILGORE TX 75662
 (565) 565-8665

Part # 150297-235-RR03-EXP 12/24

FedEx
 Express

3 of 3
 THU - 30 MAY 10:30A
PRIORITY OVERNIGHT
 AHS
 75662
 SHV

MPS# 2752 6939 0395
 Matr# 8171 8103 0200

XS GCGA

Date: 5/30 Time: 11:0 Tech: ANU
 Temp: 1.3 1.4 C

Therm#: 6443 Corr Fact: 0.1 C

Project
1106094

SPAC-R

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

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16:57

TABLE OF CONTENTS

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SAMPLE CROSS REFERENCE

Project
1106094

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
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- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	32	1123138	06/10/2024	1123853	06/13/2024
EPA 300.0 2.1	01	1123092	06/07/2024	1123092	06/07/2024
EPA 300.0 2.1	01	1124447	06/18/2024	1124447	06/18/2024
EPA 625.1	33	1123370	06/11/2024	1125008	06/18/2024

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SAMPLE CROSS REFERENCE

Project
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 1 Rocket Rd
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- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
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- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	19	1123033	06/07/2024	1123033	06/07/2024
EPA 624.1	16	1123030	06/07/2024	1123030	06/07/2024
ASTM D7065-11	34	1124341	06/17/2024	1124948	06/19/2024
EPA 200.8 5.4	32	1123138	06/10/2024	1123222	06/10/2024

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- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
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Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 200.8 5.4	31	1123060	06/10/2024	1123439	06/11/2024
EPA 200.7 4.4	31	1123060	06/10/2024	1123677	06/12/2024
EPA 245.1 3	30	1123013	06/10/2024	1123073	06/10/2024
EPA 200.8 5.4	31	1123060	06/10/2024	1124795	06/19/2024

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- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
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- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2320 B-2011	01	1123173	06/10/2024	1123173	06/10/2024
SM 5210 B-2016	01	1122943	06/13/2024	1122943	06/13/2024
SM 5210 B-2016 (TCMP Inhibitor)	01	1122944	06/13/2024	1122944	06/13/2024
SM 4500-CN ⁻ G-2016			06/19/2024		06/19/2024

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- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 4500-CN ⁻ G-2016	21	1122879	06/07/2024	1123107	06/10/2024
SM 4500-CN ⁻ E-2016	20	1122859	06/07/2024	1123105	06/10/2024
SM 5220 D-2011	14	1123591	06/12/2024	1123591	06/12/2024
SM 4500-CI G-2011		1122809	06/06/2024	1122809	06/06/2024

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Project
1106094

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
Calculation			06/19/2024		06/19/2024
SM 3500-Cr B-2011	12	1122852	06/07/2024	1122852	06/07/2024
SM 3500-Cr B-2011		1122789	06/06/2024	1122789	06/06/2024
SM 4500-O G-2016		1122811	06/06/2024	1122811	06/06/2024

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SPACEX
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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 350.1 2	29	1123008	06/10/2024	1124055	06/14/2024
EPA 351.2 minus EPA 350.1			06/19/2024		06/19/2024
SM 2540 C-2015	01	1123493	06/11/2024	1123493	06/11/2024
EPA 351.2 2	28	1122995	06/10/2024	1123329	06/11/2024

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Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
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- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
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- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 5310 C-2014	09	1124581	06/18/2024	1124581	06/18/2024
SM 4500-P E-2011	13	1123135	06/10/2024	1123135	06/10/2024
SM 2540 D-2015	01	1123475	06/11/2024	1123475	06/11/2024
SM 2130 B-2011	02	1123697	06/11/2024	1123697	06/11/2024

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SPACEX
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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2305623	WW - Retention Pond	06/06/2024	13:30:00	06/07/2024

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Polyethylene Quart
- Bottle 03 Amber 32 Oz
- Bottle 04 Amber 32 Oz
- Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 06 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 07 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 08 16 oz HNO3 Metals Plastic
- Bottle 09 H2SO4 to pH <2 Amber Glass 250 mL w/Teflon lined lid(4)
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 12 Cr+6 Preserved 250 Polyethylene
- Bottle 13 8 oz Plastic H2SO4 pH < 2
- Bottle 14 8 oz Plastic H2SO4 pH < 2
- Bottle 15 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 20 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122859) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 21 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 23 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1122879) Volume: 10.00000 mL <== Derived from 11 (5 ml)
- Bottle 24 BOD Titration Beaker A (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 25 BOD Analytical Beaker B (Batch 1122944) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 26 BOD Titration Beaker A (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 27 BOD Analytical Beaker B (Batch 1122943) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 28 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1122995) Volume: 20.00000 mL <== Derived from 14 (20 ml)
- Bottle 29 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1123008) Volume: 6.00000 mL <== Derived from 14 (6 ml)
- Bottle 30 Prepared Bottle: Mercury Preparation for Metals (Batch 1123013) Volume: 50.00000 mL <== Derived from 08 (25 ml)
- Bottle 31 Prepared Bottle: ICP Preparation for Metals (Batch 1123060) Volume: 50.00000 mL <== Derived from 08 (50 ml)
- Bottle 32 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1123138) Volume: 10.00000 mL <== Derived from 03 (1025 ml)
- Bottle 33 Prepared Bottle: 2 mL Autosampler Vial (Batch 1123370) Volume: 1.00000 mL <== Derived from 04 (939 ml)
- Bottle 34 Prepared Bottle: 2 mL Autosampler Vial (Batch 1124341) Volume: 1.00000 mL <== Derived from 07 (862 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2550 B - 2010		1123056	06/06/2024	1123056	06/06/2024
EPA 1664B	05	1123989	06/14/2024	1123989	06/14/2024
SM 4500-H+ B-2011		1122812	06/06/2024	1122812	06/06/2024

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SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
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Printed: 06/26/2024

RESULTS

Sample Results

2305623	WW - Retention Pond					Received:	06/07/2024
Non-Potable Water	Collected by: Client	SPACE X				PO:	2305623-5
	Taken: 06/06/2024	13:30:00					
Prepared: 06/24/2024 15:50:00 Analyzed 06/24/2024 15:50:00 WJP							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Check Limits	Completed						
Prepared: 1122810 06/06/2024 13:30:00 Analyzed 1122810 06/06/2024 13:30:00 RDL							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Field Cl2 Check for CNa	NEG						
Prepared: 1122813 06/06/2024 13:30:00 Analyzed 1122813 06/06/2024 13:30:00 RDL							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Field Sulfide Check for CNa	NEG	mg/L					
Prepared: 1124341 06/17/2024 14:40:00 Analyzed 1124948 06/19/2024 19:32:00 DWL							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Nonylphenol	<34.8	ug/L	34.8	SD	25154-52-3	34	
Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Trivalent Chromium	<0.003	mg/L	0.003		16065-83-1		
Prepared: 1123989 06/14/2024 11:25:00 Analyzed 1123989 06/14/2024 11:25:00 RC1							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Oil and Grease (HEM)	<4.60	mg/L	4.60			05	
Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI							
Parameter	Results	Units	RL	Flags	CAS	Bottle	
Calcium	72.7	mg/L	0.500		7440-70-2	31	



SPAC-R

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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 200.7 4.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123677 06/12/2024 12:42:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Iron, Total	0.199	mg/L	0.025		7439-89-6	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1123439 06/11/2024 15:17:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Antimony, Total	0.00112	mg/L	0.003	J	7440-36-0	31
NELAC Barium, Total	0.085	mg/L	0.005		7440-39-3	31
NELAC Lead, Total	<0.0005	mg/L	0.0005		7439-92-1	31
NELAC Manganese, Total	0.0163	mg/L	0.001		7439-96-5	31
NELAC Selenium, Total	<0.00294	mg/L	0.00294		7782-49-2	31

EPA 200.8 5.4 Prepared: 1123060 06/10/2024 07:00:00 Analyzed 1124795 06/19/2024 11:43:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Thallium, Total	0.000616	mg/L	0.0005		7440-28-0	31

EPA 200.8 5.4 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123222 06/10/2024 18:53:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.00615	mg/L	0.0000167		7429-90-5	32
NELAC Arsenic, Total	0.0000169	mg/L	0.00000976		7440-38-2	32
NELAC Beryllium, Total	<0.00000136	mg/L	0.00000136		7440-41-7	32
NELAC Cadmium, Total	<0.00000065	mg/L	0.00000065		7440-43-9	32
NELAC Chromium, Total	0.000282	mg/L	0.00000976		7440-47-3	32
NELAC Copper, Total	0.0000747	mg/L	0.0000151		7440-50-8	32
NELAC Nickel, Total	0.0000224	mg/L	0.0000109		7440-02-0	32
NELAC Silver, Total	<0.0000022	mg/L	0.0000022		7440-22-4	32
NELAC Zinc, Total	0.0043	mg/L	0.00000976		7440-66-6	32

EPA 245.1 3 Prepared: 1123013 06/10/2024 06:30:00 Analyzed 1123073 06/10/2024 11:34:00 KBI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	0.139	ug/L	0.200	J	7439-97-6	30

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
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SPAC-R

SPACE X
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 1 Rocket Rd
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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 300.0 2.1 Prepared: 1123092 06/07/2024 16:05:00 Analyzed 1123092 06/07/2024 16:05:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	197	mg/L	3.00			01
NELAC Fluoride	1.24	mg/L	1.00			01
NELAC Nitrate-Nitrogen Total	1.20	mg/L	0.226		14797-55-8	01

EPA 300.0 2.1 Prepared: 1124447 06/18/2024 03:37:00 Analyzed 1124447 06/18/2024 03:37:00 NAZ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Sulfate	281	mg/L	30.0			01

EPA 350.1 2 Prepared: 1123008 06/10/2024 08:49:19 Analyzed 1124055 06/14/2024 08:53:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Ammonia Nitrogen	0.211	mg/L	0.020			29

EPA 351.2 2 Prepared: 1122995 06/10/2024 08:02:43 Analyzed 1123329 06/11/2024 10:29:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Kjeldahl Nitrogen	0.372	mg/L	0.050		7727-37-9	28

EPA 351.2 minus EPA 350.1 Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrogen, Total Organic (as N)	0.161	mg/L	0.050			

EPA 608.3 Prepared: 1123138 06/10/2024 14:30:00 Analyzed 1123853 06/13/2024 04:55:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<0.197	ug/L	0.197		12674-11-2	32
NELAC PCB-1221	<0.195	ug/L	0.195		11104-28-2	32
NELAC PCB-1232	<0.195	ug/L	0.195		11141-16-5	32
NELAC PCB-1242	<0.195	ug/L	0.195		53469-21-9	32
NELAC PCB-1248	<0.195	ug/L	0.195		12672-29-6	32
NELAC PCB-1254	<0.195	ug/L	0.195		11097-69-1	32
NELAC PCB-1260	<0.195	ug/L	0.195		11096-82-5	32
NELAC PCB-1262	<0.195	ug/L	0.195		37324-23-5	32
NELAC PCB-1268	<0.195	ug/L	0.195		11100-14-4	32



SPAC-R

SPACE X
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client

SPACE X

PO:

2305623-5

Taken: 06/06/2024

13:30:00

EPA 624.1 Prepared: 1123030 06/07/2024 16:19:00 Analyzed 1123030 06/07/2024 16:19:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	16
NELAC 1,1,2,2-Tetrachloroethane	<1.00	ug/L	1.00		79-34-5	16
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	16
NELAC 1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	16
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	16
NELAC 1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	16
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	16
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	16
NELAC 2-Chloroethylvinyl ether	<1.00	ug/L	1.00		110-75-8	16
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	16
NELAC Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	16
NELAC Bromoform	<1.00	ug/L	1.00		75-25-2	16
NELAC Bromomethane (Methyl Bromi	<1.00	ug/L	1.00		74-83-9	16
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	16
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	16
NELAC Chloroethane	<1.12	ug/L	1.12		75-00-3	16
NELAC Chloroform	<1.00	ug/L	1.00		67-66-3	16
NELAC Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	16
NELAC cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	16
NELAC Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	16
NELAC Dichloromethane	<1.02	ug/L	1.02		75-09-2	16
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	16
NELAC m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	16
NELAC Methyl ethyl ketone (Butanone)	<1.00	ug/L	1.00		78-93-3	16
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	16
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	16
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	16
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	16
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	16
NELAC trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	16
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	16
NELAC Vinyl chloride	<1.00	ug/L	1.00		75-01-4	16

EPA 624.1 Prepared: 1123030 06/19/2024 11:10:05 Calculated 1123030 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Trihalomethanes	<0.001	mg/L	0.001			16



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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client
 Taken: 06/06/2024

SPACE X
 13:30:00

PO: 2305623-5

EPA 624.1 Prepared: 1123033 06/07/2024 15:11:00 Analyzed 1123033 06/07/2024 15:11:00 MRI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Acrolein	<4.00	ug/L	4.00	X	107-02-8	19
NELAC Acrylonitrile	<1.00	ug/L	1.00		107-13-1	19

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2,4,5-Tetrachlorobenzene	<1.10	ug/L	1.10		95-94-3	33
NELAC 1,2,4-Trichlorobenzene	<1.06	ug/L	1.06		120-82-1	33
NELAC 1,2-Dichlorobenzene	<5.32	ug/L	5.32		95-50-1	33
NELAC 1,2-DPH (as azobenzene)	<1.06	ug/L	1.06		122-66-7	33
NELAC 1,3-Dichlorobenzene	<5.32	ug/L	5.32		541-73-1	33
NELAC 1,4-Dichlorobenzene	<5.32	ug/L	5.32		106-46-7	33
NELAC 2,4,5-Trichlorophenol	<5.32	ug/L	5.32		95-95-4	33
NELAC 2,4,6-Trichlorophenol	<2.13	ug/L	2.13		88-06-2	33
NELAC 2,4-Dichlorophenol	<1.06	ug/L	1.06		120-83-2	33
NELAC 2,4-Dimethylphenol	<1.06	ug/L	1.06		105-67-9	33
NELAC 2,4-Dinitrophenol	<2.13	ug/L	2.13		51-28-5	33
NELAC 2,4-Dinitrotoluene	<2.13	ug/L	2.13		121-14-2	33
NELAC 2,6-Dinitrotoluene	<2.13	ug/L	2.13		606-20-2	33
NELAC 2-Chloronaphthalene	<1.06	ug/L	1.06		91-58-7	33
NELAC 2-Chlorophenol	<1.06	ug/L	1.06		95-57-8	33
NELAC 2-Methylphenol (o-Cresol)	<10.0	ug/L	10.0		95-48-7	33
NELAC 2-Nitrophenol	<1.06	ug/L	1.06		88-75-5	33
NELAC 3&4-Methylphenol (m&p-Cresol)	<8.52	ug/L	8.52		MEPH34	33
NELAC 3,3'-Dichlorobenzidine	<2.13	ug/L	2.13		91-94-1	33
NELAC 4,6-Dinitro-2-methylphenol	<2.13	ug/L	2.13		534-52-1	33
NELAC 4-Bromophenyl phenyl ether	<1.06	ug/L	1.06		101-55-3	33
NELAC 4-Chlorophenyl phenyl ethe	<1.06	ug/L	1.06		7005-72-3	33
NELAC 4-Nitrophenol	<1.06	ug/L	1.06		100-02-7	33
NELAC Acenaphthene	<1.06	ug/L	1.06		83-32-9	33
NELAC Acenaphthylene	<1.06	ug/L	1.06		208-96-8	33
z Aniline	<2.63	ug/L	2.63	S	62-53-3	33
NELAC Anthracene	<1.06	ug/L	1.06		120-12-7	33
NELAC Benzidine	<1.60	ug/L	1.60	D	92-87-5	33
NELAC Benzo(a)anthracene	<1.06	ug/L	1.06		56-55-3	33
NELAC Benzo(a)pyrene	<1.06	ug/L	1.06		50-32-8	33



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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water

Collected by: Client
 Taken: 06/06/2024

SPACE X
 13:30:00

PO: 2305623-5

EPA 625.1 Prepared: 1123370 06/11/2024 15:15:00 Analyzed 1125008 06/18/2024 18:25:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Benzo(b)fluoranthene	<1.06	ug/L	1.06		205-99-2	33
NELAC Benzo(ghi)perylene	<1.06	ug/L	1.06		191-24-2	33
NELAC Benzo(k)fluoranthene	<1.06	ug/L	1.06		207-08-9	33
NELAC Benzyl Butyl phthalate	<7.99	ug/L	7.99		85-68-7	33
NELAC Bis(2-chloroethoxy)methane	<1.06	ug/L	1.06		111-91-1	33
NELAC Bis(2-chloroethyl)ether	<1.06	ug/L	1.06		111-44-4	33
NELAC Bis(2-chloroisopropyl)ether	<1.06	ug/L	1.06		108-60-1	33
NELAC Bis(2-ethylhexyl)phthalate	<7.99	ug/L	7.99		117-81-7	33
NELAC Chrysene (Benzo(a)phenanthrene)	<1.06	ug/L	1.06		218-01-9	33
NELAC Dibenz(a,h)anthracene	<1.06	ug/L	1.06		53-70-3	33
NELAC Diethyl phthalate	<6.07	ug/L	6.07		84-66-2	33
NELAC Dimethyl phthalate	<5.11	ug/L	5.11		131-11-3	33
NELAC Di-n-butylphthalate	<7.99	ug/L	7.99		84-74-2	33
NELAC Di-n-octylphthalate	<2.13	ug/L	2.13	X	117-84-0	33
NELAC Fluoranthene(Benzo(j,k)fluorene)	<1.06	ug/L	1.06		206-44-0	33
NELAC Fluorene	<1.06	ug/L	1.06		86-73-7	33
NELAC Hexachlorobenzene	<1.06	ug/L	1.06		118-74-1	33
NELAC Hexachlorobutadiene	<1.10	ug/L	1.10		87-68-3	33
NELAC Hexachlorocyclopentadiene	<1.06	ug/L	1.06		77-47-4	33
NELAC Hexachloroethane	<2.13	ug/L	2.13		67-72-1	33
NELAC Indeno(1,2,3-cd)pyrene	<1.06	ug/L	1.06		193-39-5	33
NELAC Isophorone	<1.06	ug/L	1.06		78-59-1	33
NELAC Naphthalene	<1.06	ug/L	1.06		91-20-3	33
NELAC Nitrobenzene	<1.06	ug/L	1.06		98-95-3	33
NELAC n-Nitrosodiethylamine	<1.06	ug/L	1.06		55-18-5	33
NELAC N-Nitrosodimethylamine	<1.06	ug/L	1.06		62-75-9	33
NELAC n-Nitroso-di-n-butylamine	<1.06	ug/L	1.06		924-16-3	33
NELAC N-Nitrosodi-n-propylamine	<1.06	ug/L	1.06		621-64-7	33
NELAC N-Nitrosodiphenylamine (as DPA	<1.06	ug/L	1.06		86-30-6	33
NELAC p-Chloro-m-Cresol (4-Chloro-3-me	<1.06	ug/L	1.06		59-50-7	33
NELAC Pentachlorobenzene	<1.06	ug/L	1.06		608-93-5	33
NELAC Pentachlorophenol	<5.00	ug/L	5.00		87-86-5	33
NELAC Phenanthrene	<1.06	ug/L	1.06		85-01-8	33
NELAC Phenol	<1.06	ug/L	1.06		108-95-2	33
NELAC Pyrene	<1.06	ug/L	1.06		129-00-0	33
NELAC Pyridine	<1.44	ug/L	1.44	X	110-86-1	33



SPAC-R

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Printed: 06/26/2024

2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACE X PO: 2305623-5
 Taken: 06/06/2024 13:30:00

EPA 625.1		Prepared: 1123370 06/11/2024 15:15:00		Calculated 1125008 06/21/2024 15:33:09		CAL	
Parameter	Results	Units	RL	Flags	CAS	Bottle	
NELAC Cresols Total	<8.52	ug/L	8.52		1319-77-3, etc.	33	
SM 2130 B-2011		Prepared: 1123697 06/11/2024 15:25:00		Analyzed 1123697 06/11/2024 15:25:00		TRC	
NELAC Turbidity	3.04	NTU	0.300	H		02	
SM 2320 B-2011		Prepared: 1123173 06/10/2024 11:06:00		Analyzed 1123173 06/10/2024 11:06:00		KN1	
NELAC Total Alkalinity (as CaCO3)	106	mg/L	1.00			01	
SM 2540 C-2015		Prepared: 1123493 06/11/2024 08:00:00		Analyzed 1123493 06/11/2024 08:00:00		JMB	
NELAC Total Dissolved Solids	800	mg/L	50.0			01	
SM 2540 D-2015		Prepared: 1123475 06/11/2024 14:00:00		Analyzed 1123475 06/11/2024 14:00:00		ADR	
NELAC Total Suspended Solids	7.10	mg/L	2.00			01	
SM 2550 B - 2010		Prepared: 1123056 06/06/2024 13:30:00		Analyzed 1123056 06/06/2024 13:30:00		RDL	
NELAC Temperature (onsite)	38	Degrees C	1			Bottle	
SM 3500-Cr B-2011		Prepared: 1122789 06/06/2024 13:30:00		Analyzed 1122789 06/06/2024 13:30:00		RDL	
NELAC Hex Cr, Field Preservation	Preserved	ug/L	3		18540-29-9	Bottle	
SM 3500-Cr B-2011		Prepared: 1122852 06/07/2024 11:45:00		Analyzed 1122852 06/07/2024 11:45:00		ALB	
Parameter	Results	Units	RL	Flags	CAS	Bottle	



SPAC-R

SPACEX
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2305623 WW - Retention Pond

Received: 06/07/2024

Non-Potable Water Collected by: Client SPACEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

SM 3500-Cr B-2011 Prepared: 1122852 06/07/2024 11:45:00 Analyzed 1122852 06/07/2024 11:45:00 ALB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Hexavalent Chromium	25.9	ug/L	3.00		18540-29-9	12

SM 4500-Cl G-2011 Prepared: 1122809 06/06/2024 13:30:00 Analyzed 1122809 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cl2 Res.,Total(Onsite)Spec Mid	0.00	mg/L	0.05			

SM 4500-CN⁻E-2016 Prepared: 1122859 06/07/2024 13:58:40 Analyzed 1123105 06/10/2024 09:44:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	0.0034	mg/L	0.005	J		20

SM 4500-CN⁻G-2016 Prepared: 06/19/2024 11:10:05 Calculated 06/19/2024 11:10:05 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	0.00102	mg/L	0.005	J		

SM 4500-CN⁻G-2016 Prepared: 1122879 06/07/2024 15:00:00 Analyzed 1123107 06/10/2024 09:44:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.00238	mg/L	0.00238			21

SM 4500-H+ B-2011 Prepared: 1122812 06/06/2024 13:30:00 Analyzed 1122812 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC pH (Onsite)	8.6	SU				

SM 4500-O G-2016 Prepared: 1122811 06/06/2024 13:30:00 Analyzed 1122811 06/06/2024 13:30:00 RDL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Dissolved Oxygen Onsite	7.1	mg/L	1.0			

SM 4500-P E-2011 Prepared: 1123135 06/10/2024 09:45:00 Analyzed 1123135 06/10/2024 09:45:00 LR3

Parameter	Results	Units	RL	Flags	CAS	Bottle
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Non-Potable Water Collected by: Client SPACEX PO: 2305623-5
 Taken: 06/06/2024 13:30:00

SM 4500-P E-2011 Prepared: 1123135 06/10/2024 09:45:00 Analyzed 1123135 06/10/2024 09:45:00 LR3

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.017	mg/L	0.030		7723-14-0	13

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/13/2024 14:30:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	3.56	mg/L	2.00		1026-3	01

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/13/2024 14:06:55 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC BOD Carbonaceous	<2.00	mg/L	2.00			01

SM 5220 D-2011 Prepared: 1123591 06/12/2024 14:00:00 Analyzed 1123591 06/12/2024 14:00:00 SRJ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			14

SM 5310 C-2014 Prepared: 1124581 06/18/2024 17:34:00 Analyzed 1124581 06/18/2024 17:34:00 MAG

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Organic Carbon	3.61	mg/L	0.500			09

Sample Preparation

2305623 WW - Retention Pond

Received: 06/07/2024

06/06/2024

2305623-5

Prepared: 12/31/1899 12:11:02 Calculated 12:11:02 CAL

Environmental Fee (per Project) Verified



SPAC-R

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 Space Exploration Technologies
 1 Rocket Rd
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 2305623-5

06/06/2024

	ASTM D7065-11	Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124948	06/19/2024	19:32:00	DWL
z	Nonyl Phenol Expansion	Entered						34
	EPA 200.2 2.8	Prepared: 1123060	06/10/2024	07:00:00	Analyzed 1123060	06/10/2024	07:00:00	HLT
z	Liquid Metals Digestion	50/50		ml				08
	EPA 245.1 3	Prepared: 1123013	06/10/2024	06:30:00	Analyzed 1123013	06/10/2024	06:30:00	HLT
NELAC	Mercury Liquid Metals Digestion	50/25		ml				08
	EPA 350.2, Rev. 2.0	Prepared: 1123008	06/10/2024	08:49:19	Analyzed 1123008	06/10/2024	08:49:19	MEG
NELAC	Ammonia Distillation	6/6		ml				14
	EPA 351.2, Rev 2.0	Prepared: 1122995	06/10/2024	08:02:43	Analyzed 1122995	06/10/2024	08:02:43	MEG
NELAC	TKN Block Digestion	20/20		ml				14
	EPA 608.3	Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123138	06/10/2024	14:30:00	CRS
	PCB Liq-Liq Extr. W/Hex Exch.	10/1025		ml				03
	EPA 608.3	Prepared: 1123138	06/10/2024	14:30:00	Analyzed 1123853	06/13/2024	04:55:00	KAP
NELAC	Polychlorinated Biphenyls	Entered						32
	EPA 624.1	Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI



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 2305623-5

06/06/2024

EPA 624.1	Prepared: 1123030	06/07/2024	16:19:00	Analyzed 1123030	06/07/2024	16:19:00	MRI
Table D-1/D-2 Volatile Expansion	Entered						16
EPA 624.1	Prepared: 1123033	06/07/2024	15:11:00	Analyzed 1123033	06/07/2024	15:11:00	MRI
Acrolein/Acrylonitrile Exp.	Entered						19
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1123370	06/11/2024	15:15:00	CRS
Liquid-Liquid Extraction, BNA	1/939	ml					04
EPA 625.1	Prepared: 1123370	06/11/2024	15:15:00	Analyzed 1125008	06/18/2024	18:25:00	PMI
Table D-1/ D-2 Semivolatiles Exp	Entered						33
EPA 625.1	Prepared: 1124341	06/17/2024	14:40:00	Analyzed 1124341	06/17/2024	14:40:00	MCC
Nonylphenol Liq-Liq Extract	1/862	ml					07
SM 2540 C-2015	Prepared: 1123231	06/11/2024	08:00:00	Analyzed 1123231	06/11/2024	08:00:00	JMB
Total Dissolved Solids Started	Started						
SM 2540 D-2011	Prepared: 1123240	06/11/2024	14:00:00	Analyzed 1123240	06/11/2024	14:00:00	ADR
TSS Set Started	Started						
SM 4500-CN ⁻ C-2016	Prepared: 1122859	06/07/2024	13:58:40	Analyzed 1122859	06/07/2024	13:58:40	SRJ
Cyanide Distillation	10/5	ml					11



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2305623 WW - Retention Pond

Received: 06/07/2024
 2305623-5

06/06/2024

SM 4500-CN⁻C-2016 Prepared: 1122879 06/07/2024 15:00:00 Analyzed 1122879 06/07/2024 15:00:00 SRJ

NELAC CN Dist After Chlorination 10/5 ml 11

SM 5210 B-2016 Prepared: 1122943 06/08/2024 Analyzed 1122943 06/08/2024 06:36:35 JW1

NELAC BOD Set Started Started

SM 5210 B-2016 (TCMP Inhibitor) Prepared: 1122944 06/08/2024 Analyzed 1122944 06/08/2024 06:36:35 JW1

NELAC BODc Set Started Started

Qualifiers:

- J - Analyte detected below quantitation limit
- H - Sample started outside recommended holding time
- S - Standard reads lower than desired
- D - Duplicate RPD was higher than expected
- X - Standard reads higher than desired.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
 z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
 RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



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A handwritten signature in black ink that reads "Bill Peery".

Bill Peery, MS, VP Technical Services



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Analytical Set **1122943**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126419820
Biochemical Oxygen Demand (BOD5)	1122943	0.3	0.200	0.500	mg/L	126419872
Biochemical Oxygen Demand (BOD5)	1122943	0.2	0.200	0.500	mg/L	126420032

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2305504	15.8	14.3	mg/L	9.97	30.0
Biochemical Oxygen Demand (BOD5)	2305617	151	164	mg/L	8.25	30.0
Biochemical Oxygen Demand (BOD5)	2305721	263	265	mg/L	0.758	30.0
Biochemical Oxygen Demand (BOD5)	2305836	6.55	6.91	mg/L	5.35	30.0
Biochemical Oxygen Demand (BOD5)	2305924	5.37	5.73	mg/L	6.49	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1122943	1.15	0.200	0.500	mg/L	126419822
Biochemical Oxygen Demand (BOD5)	1122943	1.01	0.200	0.500	mg/L	126419874
Biochemical Oxygen Demand (BOD5)	1122943	1.07	0.200	0.500	mg/L	126420034

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		229	198	mg/L	116	83.7 - 116	126419823
Biochemical Oxygen Demand (BOD5)		227	198	mg/L	115	83.7 - 116	126419875
Biochemical Oxygen Demand (BOD5)		219	198	mg/L	111	83.7 - 116	126420035

Analytical Set **1122944**

SM 5210 B-2016 (TCMP Inhibitor)

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1122944	0.2	0.200	0.500	mg/L	126419906

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
BOD Carbonaceous	2305514	7.74	6.54	mg/L	16.8	30.0
BOD Carbonaceous	2305784	3.68	2.68	mg/L	31.4	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
BOD Carbonaceous	1122944	1.29	0.200	0.500	mg/L	126419908

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
BOD Carbonaceous		222	198	mg/L	112	83.7 - 116	126419909

Analytical Set **1123105**

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide, total	1122859	ND	0.00238	0.005	mg/L	126424626

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.513	0.500	mg/L	103	90.0 - 110	126424625
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424635
Cyanide, total	0.512	0.500	mg/L	102	90.0 - 110	126424644
Cyanide, total	0.514	0.500	mg/L	103	90.0 - 110	126424655
Cyanide, total	0.549	0.500	mg/L	110	90.0 - 110	126424664
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424668
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	126424669
Cyanide, total	0.518	0.500	mg/L	104	90.0 - 110	126424670
Cyanide, total	0.519	0.500	mg/L	104	90.0 - 110	126424673

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide, total	2305241	ND	ND	mg/L		20.0
Cyanide, total	2305248	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.200	0.200	mg/L	100	90.0 - 110	126424624

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide, total	1122859	0.362	0.361	0.400	90.0 - 110	90.5	90.2	mg/L	0.277	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Cyanide, total	2305241	0.356	ND	0.400	mg/L	89.0	90.0 - 110	126424631	*
Cyanide, total	2305248	0.354	ND	0.400	mg/L	88.5	90.0 - 110	126424634	*

Analytical Set 1123107

SM 4500-CN⁻ G-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide After Chlorination	1122879	ND	0.00119	0.0025	mg/L	126424710

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.513	0.500	mg/L	103	90.0 - 110	126424705
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424706
Cyanide After Chlorination	0.512	0.500	mg/L	102	90.0 - 110	126424707
Cyanide After Chlorination	0.514	0.500	mg/L	103	90.0 - 110	126424708
Cyanide After Chlorination	0.549	0.500	mg/L	110	90.0 - 110	126424709
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424711
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	126424718
Cyanide After Chlorination	0.518	0.500	mg/L	104	90.0 - 110	126424719

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.519	0.500	mg/L	104	90.0 - 110	126424720

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2305623	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.200	0.200	mg/L	100	90.0 - 110	126424704

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1122879	0.180	0.180	0.200	90.0 - 110	90.0	90.0	mg/L	0	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2305623	0.365	0.0014	0.400	mg/L	91.2	90.0 - 110	126424716

Analytical Set 1123329

EPA 351.2 2

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Kjeldahl Nitrogen	1122995	ND	0.00712	0.050	mg/L	126430743

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.41	5.00	mg/L	108	90.0 - 110	126430734
Total Kjeldahl Nitrogen	5.38	5.00	mg/L	108	90.0 - 110	126430735
Total Kjeldahl Nitrogen	5.50	5.00	mg/L	110	90.0 - 110	126430739
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	126430750
Total Kjeldahl Nitrogen	5.43	5.00	mg/L	109	90.0 - 110	126430757

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Kjeldahl Nitrogen	2304918	7.46	7.58	mg/L	1.60	20.0
Total Kjeldahl Nitrogen	2304932	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	126430733

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Total Kjeldahl Nitrogen	1122995	4.81	4.79	5.00	90.0 - 110	96.2	95.8	mg/L	0.417	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Total Kjeldahl Nitrogen	2304918	12.0	7.58	10.0	mg/L	44.2	80.0 - 120	126430742	*
Total Kjeldahl Nitrogen	2304932	-0.389	ND	5.00	mg/L	0	80.0 - 120	126430748	*

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Analytical Set **1124055**

EPA 350.1 2

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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Ammonia Nitrogen	1123008	ND	0.00336	0.020	mg/L	126449003

CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	126449002
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	126449011
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	126449021
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449029
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449040
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	126449051
Ammonia Nitrogen	2.03	2.00	mg/L	102	90.0 - 110	126449062
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449071
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449081
Ammonia Nitrogen	1.98	2.00	mg/L	99.0	90.0 - 110	126449091
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	126449100
Ammonia Nitrogen	1.97	2.00	mg/L	98.5	90.0 - 110	126449111
Ammonia Nitrogen	2.00	2.00	mg/L	100	90.0 - 110	126449116

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	2305608	0.077	0.081	mg/L	5.06	20.0
Ammonia Nitrogen	2305651	0.052	0.109	mg/L	70.8 *	20.0

ICV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Ammonia Nitrogen	2.07	2.00	mg/L	104	90.0 - 110	126449001

LCS Dup

<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Ammonia Nitrogen	1123008	2.14	2.18	2.00	90.0 - 110	107	109	mg/L	1.85	20.0

Mat. Spike

<i>Parameter</i>	<i>Sample</i>	<i>Spike</i>	<i>Unknown</i>	<i>Known</i>	<i>Units</i>	<i>Recovery %</i>	<i>Limits %</i>	<i>File</i>
Ammonia Nitrogen	2305608	2.10	0.081	2.00	mg/L	101	80.0 - 120	126449008
Ammonia Nitrogen	2305651	2.10	0.109	2.00	mg/L	99.6	80.0 - 120	126449012

Analytical Set **1122809**

SM 4500-CI G-2011

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Cl2 Res.,Total(Onsite)Spec Mid	2305628	NEGATT	NEGATIVE	mg/L		20

Analytical Set **1122810**

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Field Cl2 Check for CNA	2305628	NEGATT	NEGATIVE			20

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Analytical Set **1122811** **SM 4500-O G-2016**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Dissolved Oxygen Onsite	2305628	6.6	6.5	mg/L	1.5	20

Analytical Set **1122812** **SM 4500-H+ B-2011**

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	6.0	6.0	SU	100	90 - 110	
pH (Onsite)	6.0	6.0	SU	100	90 - 110	

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
pH (Onsite)	2305628	8.2	8.1	SU	1.2	20

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
pH (Onsite)	1122812	8.1	8.0	SU	101.3	90 - 110	
pH (Onsite)	1122812	8.0	8.0	SU	100	90 - 110	

Analytical Set **1123056** **SM 2550 B - 2010**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Temperature (onsite)	2305628	38	39	Degrees C	2.6	20

Analytical Set **1123475** **SM 2540 D-2015**

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	ND	2	2	mg/L	126434412

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1123475	-0.0001			grams	126434411

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2305567	7210	7570	mg/L	4.87	20.0
Total Suspended Solids	2305644	793	653	mg/L	19.4	20.0
Total Suspended Solids	2305738	545	610	mg/L	11.3	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Suspended Solids	1123475	53.0	50.0	mg/L	106	90.0 - 110	126434445

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Suspended Solids		96.0	100	mg/L	96.0	90.0 - 110	126434444

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Analytical Set **1123493**

SM 2540 C-2015

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	ND	5.00	5.00	mg/L	126434809

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1123493	-0.0002			grams	126434796

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Dissolved Solids	2305623	800	800	mg/L	0	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Dissolved Solids	1123493	200	200	mg/L	100	85.0 - 115	126434810

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Dissolved Solids		104	100	mg/L	104	90.0 - 110	126434797

Analytical Set **1123989**

EPA 1664B

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1123989	ND	0.557	4.00	mg/L	126447630

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Oil and Grease (HEM)	1123989	37.1	40.0	mg/L	92.8	78.0 - 114	126447631

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2305623	38.5	0	ND	40.0	78.0 - 114	96.2		mg/L		20.0

Analytical Set **1123092**

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.129	0.100	mg/L	129	70.0 - 130	126424313
Nitrate-Nitrogen Total	0.0223	0.0226	mg/L	98.7	70.0 - 130	126424313

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	ND	0.0972	0.300	mg/L	126424314
Fluoride	1123092	ND	0.010	0.100	mg/L	126424314
Nitrate-Nitrogen Total	1123092	ND	0.00745	0.0226	mg/L	126424314

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424310

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CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1123092	0.048	0.0972	0.300	mg/L	126424328
Chloride	1123092	0.045	0.0972	0.300	mg/L	126424342
Fluoride	1123092	0	0.010	0.100	mg/L	126424310
Fluoride	1123092	0	0.010	0.100	mg/L	126424328
Fluoride	1123092	0	0.010	0.100	mg/L	126424342
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424310
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424328
Nitrate-Nitrogen Total	1123092	0	0.00745	0.0226	mg/L	126424342

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.5	10.0	mg/L	105	90.0 - 110	126424309
Chloride	10.3	10.0	mg/L	103	90.0 - 110	126424327
Chloride	10.4	10.0	mg/L	104	90.0 - 110	126424341
Fluoride	9.96	10.0	mg/L	99.6	90.0 - 110	126424309
Fluoride	9.92	10.0	mg/L	99.2	90.0 - 110	126424327
Fluoride	9.99	10.0	mg/L	99.9	90.0 - 110	126424341
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424309
Nitrate-Nitrogen Total	2.26	2.26	mg/L	100	90.0 - 110	126424327
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	126424341

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1123092	5.27	5.28	5.00	85.0 - 115	105	106	mg/L	0.190	20.0
Fluoride	1123092	5.11	5.17	5.00	88.0 - 120	102	103	mg/L	1.17	20.0
Nitrate-Nitrogen Total	1123092	1.18	1.19	1.13	88.0 - 116	104	105	mg/L	0.844	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2304482	1440	1410	1350	100	80.0 - 120	90.0	60.0 *	mg/L	40.0 *	20.0
Fluoride	2304482	87.4	87.6	ND	100	80.0 - 120	87.4	87.6	mg/L	0.229	20.0
Nitrate-Nitrogen Total	2304482	23.3	23.3	1.49	22.6	80.0 - 120	96.5	96.5	mg/L	0	20.0
Chloride	2304595	18.3	18.2	0.660	20.0	80.0 - 120	88.2	87.7	mg/L	0.569	20.0
Fluoride	2304595	18.1	17.2	ND	20.0	80.0 - 120	90.5	86.0	mg/L	5.10	20.0
Nitrate-Nitrogen Total	2304595	4.31	4.28	ND	4.52	80.0 - 120	95.4	94.7	mg/L	0.698	20.0

Analytical Set

1124447

EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	ND	0.254	0.300	mg/L	126459699

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1124447	0	0.254	0.300	mg/L	126459695
Sulfate	1124447	0	0.254	0.300	mg/L	126459717
Sulfate	1124447	0	0.254	0.300	mg/L	126459729

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Sulfate	9.94	10.0	mg/L	99.4	90.0 - 110	126459694
Sulfate	10.1	10.0	mg/L	101	90.0 - 110	126459716
Sulfate	9.93	10.0	mg/L	99.3	90.0 - 110	126459728

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Sulfate	1124447	5.13	5.07	5.00	85.0 - 115	103	101	mg/L	1.18	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Sulfate	2306972	1020	1020	944	100	80.0 - 120	76.0 *	76.0 *	mg/L	0	20.0
Sulfate	2307646	106	104	82.5	20.0	80.0 - 120	118	108	mg/L	8.89	20.0

Analytical Set **1122852**

SM 3500-Cr B-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419252
Hexavalent Chromium	1122852	ND	0.550	3.00	ug/L	126419259
Hexavalent Chromium	1122852	0.768	0.550	3.00	ug/L	126419264

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexavalent Chromium	86.2	80.0	ug/L	108	90.0 - 110	126419253
Hexavalent Chromium	86.7	80.0	ug/L	108	90.0 - 110	126419260
Hexavalent Chromium	86.4	80.0	ug/L	108	90.0 - 110	126419265

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexavalent Chromium	1122852	85.7	85.9	80.0	85.0 - 115	107	107	ug/L	0.233	15.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Hexavalent Chromium	2304484	ND	ND	ND	80.0	70.0 - 130	0 *	0 *	ug/L		20.0

Analytical Set **1123073**

EPA 245.1 3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Mercury, Total	1123013	ND	0.113	0.200	ug/L	126424063

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Mercury, Total	5.18	5.000	ug/L	104	90.0 - 110	126424061
Mercury, Total	5.06	5.000	ug/L	101	90.0 - 110	126424062
Mercury, Total	5.10	5.000	ug/L	102	90.0 - 110	126424069
Mercury, Total	5.01	5.000	ug/L	100	90.0 - 110	126424074

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ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	20.5	20.00	ug/L	102	90.0 - 110	126424060

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	4.86	5.000	ug/L	97.2	90.0 - 110	126424059

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	1123013	8.55	8.69	10.0	85.0 - 115	85.5	86.9	ug/L	1.62	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	2305628	9.84	10.1	0.149	10.0	70.0 - 130	96.9	99.5	ug/L	2.65	20.0

Analytical Set 1123222

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Barium, Total	1123060	ND	0.000635	0.001	mg/L	126428091
Lead, Total	1123060	ND	0.000244	0.001	mg/L	126428091
Manganese, Total	1123060	ND	0.000118	0.001	mg/L	126428091
Thallium, Total	1123060	ND	0.000106	0.001	mg/L	126428091

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427991
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427996
Aluminum, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428000
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428108
Aluminum, Total	0.0519	0.05	mg/L	104	90.0 - 110	126428115
Aluminum, Total	0.0529	0.05	mg/L	106	90.0 - 110	126428135
Aluminum, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126428137
Aluminum, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428141
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126427976
Arsenic, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427983
Arsenic, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427986
Arsenic, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126427991
Arsenic, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126427996
Arsenic, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Arsenic, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428115
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108
Beryllium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Cadmium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427976
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427983
Cadmium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126427991
Cadmium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427996
Cadmium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428108

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cadmium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428115
Cadmium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126428126
Cadmium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428130
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427976
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427983
Chromium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126427986
Chromium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126427991
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427996
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428000
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Chromium, Total	0.050	0.05	mg/L	100	90.0 - 110	126428115
Chromium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	126428123
Chromium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126428126
Chromium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428130
Chromium, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428132
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427976
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126427986
Copper, Total	0.0501	0.05	mg/L	100	90.0 - 110	126427991
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	126427996
Copper, Total	0.0504	0.05	mg/L	101	90.0 - 110	126428000
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	126428006
Copper, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428014
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428023
Copper, Total	0.0516	0.05	mg/L	103	90.0 - 110	126428033
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428044
Copper, Total	0.0508	0.05	mg/L	102	90.0 - 110	126428055
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428065
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	126428076
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428087
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126428097
Copper, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428108
Copper, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428115
Copper, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428126
Copper, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	126428130
Copper, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126428132
Copper, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126428133
Nickel, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126427976
Nickel, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	126427983
Nickel, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	126427986
Nickel, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	126427991
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427996
Nickel, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126428108
Nickel, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	126428115

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QUALITY CONTROL



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428123
Nickel, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126427976
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126427983
Silver, Total	0.0509	0.05	mg/L	102	90.0 - 110	126427986
Silver, Total	0.0506	0.05	mg/L	101	90.0 - 110	126427991
Silver, Total	0.0508	0.05	mg/L	102	90.0 - 110	126427996
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428000
Silver, Total	0.0505	0.05	mg/L	101	90.0 - 110	126428108
Silver, Total	0.051	0.05	mg/L	102	90.0 - 110	126428115
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	126428123
Silver, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126428126
Silver, Total	0.0502	0.05	mg/L	100	90.0 - 110	126428130
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428132
Silver, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126428133
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	126428135
Zinc, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427969
Zinc, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126427976
Zinc, Total	0.050	0.05	mg/L	100	90.0 - 110	126427983
Zinc, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	126427986
Zinc, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	126427991
Zinc, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	126427996
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126428108
Zinc, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126428115
Zinc, Total	0.048	0.05	mg/L	96.0	90.0 - 110	126428123

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Arsenic, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	126427964
Beryllium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126427964
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	126427964
Chromium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126427964
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	126427964
Nickel, Total	0.0504	0.05	mg/L	101	90.0 - 110	126427964
Silver, Total	0.0515	0.05	mg/L	103	90.0 - 110	126427964
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126427964

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Barium, Total	1123060	0.502	0.503	0.500	85.0 - 115	100	101	mg/L	0.199	20.0
Lead, Total	1123060	0.510	0.521	0.500	85.0 - 115	102	104	mg/L	2.13	20.0
Manganese, Total	1123060	0.488	0.489	0.500	85.0 - 115	97.6	97.8	mg/L	0.205	20.0
Thallium, Total	1123060	0.513	0.526	0.500	85.0 - 115	103	105	mg/L	2.50	20.0

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MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Copper, Total	0.00102	0.001	mg/L	102	25.0 - 175	126427965

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Lead, Total	2305811	0.551	0.563	0.0438	0.500	70.0 - 130	101	104	mg/L	2.34	20.0
Barium, Total	2305911	0.515	0.517	0.017	0.500	70.0 - 130	99.6	100	mg/L	0.401	20.0
Manganese, Total	2305911	0.484	0.469	0.000754	0.500	70.0 - 130	96.6	93.6	mg/L	3.15	20.0
Thallium, Total	2305911	0.493	0.499	0.000227	0.500	70.0 - 130	98.6	99.8	mg/L	1.21	20.0

Analytical Set 1123439

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Antimony, Total	1123060	ND	0.000847	0.003	mg/L	126432756
Barium, Total	1123060	ND	0.00207	0.005	mg/L	126432756
Lead, Total	1123060	ND	0.000549	0.001	mg/L	126432756
Manganese, Total	1123060	ND	0.000168	0.001	mg/L	126432756
Selenium, Total	1123060	ND	0.00294	0.005	mg/L	126432756
Thallium, Total	1123060	ND	0.000966	0.001	mg/L	126432756

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	126432753
Antimony, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	126432763
Antimony, Total	0.049	0.05	mg/L	98.0	90.0 - 110	126432770
Antimony, Total	0.0501	0.05	mg/L	100	90.0 - 110	126432779
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432792
Antimony, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	126432799
Antimony, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	126432809
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	126432816
Barium, Total	0.0512	0.05	mg/L	102	90.0 - 110	126432753
Barium, Total	0.051	0.05	mg/L	102	90.0 - 110	126432763
Lead, Total	0.0533	0.05	mg/L	107	90.0 - 110	126432739
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432749
Lead, Total	0.0543	0.05	mg/L	109	90.0 - 110	126432753
Lead, Total	0.0534	0.05	mg/L	107	90.0 - 110	126432763
Manganese, Total	0.0539	0.05	mg/L	108	90.0 - 110	126432753
Manganese, Total	0.0523	0.05	mg/L	105	90.0 - 110	126432763
Manganese, Total	0.0545	0.05	mg/L	109	90.0 - 110	126432792
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432799
Manganese, Total	0.0525	0.05	mg/L	105	90.0 - 110	126432809
Manganese, Total	0.0518	0.05	mg/L	104	90.0 - 110	126432816
Selenium, Total	0.052	0.05	mg/L	104	90.0 - 110	126432739
Selenium, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432749
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432753
Selenium, Total	0.0529	0.05	mg/L	106	90.0 - 110	126432763

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QUALITY CONTROL



SPAC-R

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Selenium, Total	0.0521	0.05	mg/L	104	90.0 - 110	126432770
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432779

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Antimony, Total	0.0517	0.05	mg/L	103	90.0 - 110	126432734
Barium, Total	0.0522	0.05	mg/L	104	90.0 - 110	126432734
Lead, Total	0.0537	0.05	mg/L	107	90.0 - 110	126432734
Manganese, Total	0.0544	0.05	mg/L	109	90.0 - 110	126432734
Selenium, Total	0.0528	0.05	mg/L	106	90.0 - 110	126432734

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Antimony, Total	1123060	0.485	0.494	0.500	85.0 - 115	97.0	98.8	mg/L	1.84	20.0
Barium, Total	1123060	0.496	0.502	0.500	85.0 - 115	99.2	100	mg/L	1.20	20.0
Lead, Total	1123060	0.502	0.507	0.500	85.0 - 115	100	101	mg/L	0.991	20.0
Manganese, Total	1123060	0.521	0.531	0.500	85.0 - 115	104	106	mg/L	1.90	20.0
Selenium, Total	1123060	0.491	0.502	0.500	85.0 - 115	98.2	100	mg/L	2.22	20.0
Thallium, Total	1123060	0.496	0.504	0.500	85.0 - 115	99.2	101	mg/L	1.60	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Lead, Total	0.000969	0.001	mg/L	96.9	25.0 - 175	126432735
Manganese, Total	0.00104	0.001	mg/L	104	25.0 - 175	126432735

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Antimony, Total	2305811	0.490	0.481	ND	0.500	70.0 - 130	98.0	96.2	mg/L	1.85	20.0
Barium, Total	2305811	0.509	0.507	0.0167	0.500	70.0 - 130	98.5	98.1	mg/L	0.407	20.0
Lead, Total	2305811	0.441	0.433	ND	0.500	70.0 - 130	88.2	86.6	mg/L	1.83	20.0
Manganese, Total	2305811	0.457	0.444	0.000782	0.500	70.0 - 130	91.2	88.6	mg/L	2.89	20.0
Selenium, Total	2305811	0.468	0.458	ND	0.500	70.0 - 130	93.6	91.6	mg/L	2.16	20.0
Thallium, Total	2305811	0.445	0.439	ND	0.500	70.0 - 130	89.0	87.8	mg/L	1.36	20.0

Analytical Set

1123677

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1123060	ND	0.0156	0.500	mg/L	126438124
Iron, Total	1123060	ND	0.00379	0.025	mg/L	126438124

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.3	25.0	mg/L	101	90.0 - 110	126438114
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	126438115
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438123
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438130

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438136
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438145
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438154
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	126438164
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438172
Calcium	24.5	25.0	mg/L	98.0	90.0 - 110	126438179
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	126438114
Iron, Total	2.45	2.50	mg/L	98.0	90.0 - 110	126438115
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438123
Iron, Total	2.44	2.50	mg/L	97.6	90.0 - 110	126438130
Iron, Total	2.42	2.50	mg/L	96.8	90.0 - 110	126438136
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438145
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438154
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438164
Iron, Total	2.41	2.50	mg/L	96.4	90.0 - 110	126438172
Iron, Total	2.40	2.50	mg/L	96.0	90.0 - 110	126438179

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.7	50.0	mg/L	99.4	95.0 - 105	126438108
Iron, Total	4.77	5.00	mg/L	95.4	95.0 - 105	126438108

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	126438112
Iron, Total	2.46	2.50	mg/L	98.4	90.0 - 110	126438112

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1123060	4.89	4.92	5.00	85.0 - 115	97.8	98.4	mg/L	0.612	25.0
Iron, Total	1123060	0.488	0.490	0.500	85.0 - 115	97.6	98.0	mg/L	0.409	25.0

LDR

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	96.9	100	mg/L	96.9	90.0 - 110	126438109
Iron, Total	9.75	10.0	mg/L	97.5	90.0 - 110	126438109

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.521	0.500	mg/L	104	25.0 - 175	126438113
Iron, Total	0.0538	0.050	mg/L	108	25.0 - 175	126438113

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2305811	31.1	31.8	27.1	5.00	75.0 - 125	80.0	94.0	mg/L	16.1	25.0
Iron, Total	2305811	0.497	0.503	0.00607	0.500	75.0 - 125	98.2	99.4	mg/L	1.21	25.0

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QUALITY CONTROL



SPAC-R

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Analytical Set **1124581**

SM 5310 C-2014

AWRL/LOQ C											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	1.99	2.00	mg/L	99.5	50.0 - 150	126462988					
Blank											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0901	0.0618	0.500	mg/L	126462987					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126462993					
Total Organic Carbon	1124581	ND	0.0618	0.500	mg/L	126463008					
CCB											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>					
Total Organic Carbon	1124581	0.0848	0.0618	0.500	mg/L	126462981					
Total Organic Carbon	1124581	0.0931	0.0618	0.500	mg/L	126462989					
Total Organic Carbon	1124581	0.110	0.0618	0.500	mg/L	126463005					
Total Organic Carbon	1124581	0.155	0.0618	0.500	mg/L	126463019					
CCV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462984					
Total Organic Carbon	10.4	10.0	mg/L	104	90.0 - 110	126462991					
Total Organic Carbon	10.5	10.0	mg/L	105	90.0 - 110	126463006					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126463020					
ICL											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	20.5	20.0	mg/L	102	90.0 - 110	126462983					
Total Organic Carbon	20.3	20.0	mg/L	102	90.0 - 110	126462990					
ICV											
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>					
Total Organic Carbon	10.1	10.0	mg/L	101	90.0 - 110	126462985					
Total Organic Carbon	10.2	10.0	mg/L	102	90.0 - 110	126462992					
LCS											
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>				
Total Organic Carbon	1124581	5.07	5.00	mg/L	101	85.0 - 115	126462986				
Total Organic Carbon	1124581	5.22	5.00	mg/L	104	85.0 - 115	126462994				
Total Organic Carbon	1124581	5.35	5.00	mg/L	107	85.0 - 115	126463007				
MSD											
<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Organic Carbon	2306732	14.7	14.4	4.14	10.0	85.0 - 115	106	103	mg/L	2.88	20.0
Total Organic Carbon	2306796	14.4	14.5	3.74	10.0	85.0 - 115	107	108	mg/L	0.934	20.0
Standard											
<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>				
Total Organic Carbon		48.4	50.0	mg/L	96.8	90.0 - 110	126462982				

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QUALITY CONTROL



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Analytical Set **1124795**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Thallium, Total	1123060	ND	0.00025	0.0005	mg/L	126467375

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	126467374
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467383
Thallium, Total	0.0509	0.05	mg/L	102	90.0 - 110	126467393
Thallium, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	126467402
Thallium, Total	0.0456	0.05	mg/L	91.2	90.0 - 110	126467411

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Thallium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	126467360

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	1123060	0.561	0.567	0.500	85.0 - 115	112	113	mg/L	1.06	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Thallium, Total	2305811	0.548	0.558	ND	0.500	70.0 - 130	110	112	mg/L	1.81	20.0

Analytical Set **1123030**

EPA 624.1

BFB

<u>Parameter</u>	<u>Sample</u>	<u>RefMass</u>	<u>Reading</u>	<u>%</u>	<u>Limits%</u>	<u>File</u>
BFB Mass 173	1123030	174	140	1.3	0 - 2.00	126423572
BFB Mass 174	1123030	95.0	10384	56.9	50.0 - 100	126423572
BFB Mass 175	1123030	174	921	8.9	5.00 - 9.00	126423572
BFB Mass 176	1123030	174	10267	98.9	95.0 - 101	126423572
BFB Mass 177	1123030	176	672	6.5	5.00 - 9.00	126423572
BFB Mass 50	1123030	95.0	4030	22.1	15.0 - 40.0	126423572
BFB Mass 75	1123030	95.0	9801	53.7	30.0 - 60.0	126423572
BFB Mass 95	1123030	95.0	18235	100.0	100 - 100	126423572
BFB Mass 96	1123030	95.0	1272	7.0	5.00 - 9.00	126423572

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
1,1,1-Trichloroethane	1123030	ND	0.531	1.00	ug/L	126423576
1,1,2-Trichloroethane	1123030	ND	0.563	1.00	ug/L	126423576
1,1-Dichloroethane	1123030	ND	0.593	1.00	ug/L	126423576
1,1-Dichloroethylene	1123030	ND	0.574	1.00	ug/L	126423576
1,2-Dibromoethane (EDB)	1123030	ND	0.562	1.00	ug/L	126423576
1,2-Dichloroethane	1123030	ND	0.590	1.00	ug/L	126423576
1,2-Dichloropropane	1123030	ND	0.615	1.00	ug/L	126423576
Benzene	1123030	ND	0.453	1.00	ug/L	126423576

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Bromodichloromethane	1123030	ND	0.409	1.00	ug/L	126423576
Bromoform	1123030	ND	0.500	1.00	ug/L	126423576
Carbon Tetrachloride	1123030	ND	0.299	1.00	ug/L	126423576
Chlorobenzene	1123030	ND	0.558	1.00	ug/L	126423576
Chloroethane	1123030	ND	1.12	1.12	ug/L	126423576
Chloroform	1123030	ND	0.463	1.00	ug/L	126423576
Chloromethane (Methyl Chloride)	1123030	ND	0.811	1.00	ug/L	126423576
cis-1,3-Dichloropropene	1123030	ND	0.660	1.00	ug/L	126423576
Dibromochloromethane	1123030	ND	0.311	1.00	ug/L	126423576
Dichloromethane	1123030	ND	1.02	1.02	ug/L	126423576
Ethylbenzene	1123030	ND	0.498	1.00	ug/L	126423576
m-Dichlorobenzene (1,3-DCB)	1123030	ND	0.619	1.00	ug/L	126423576
Methyl ethyl ketone (Butanone)	1123030	ND	0.742	1.00	ug/L	126423576
o-Dichlorobenzene (1,2-DCB)	1123030	ND	0.532	1.00	ug/L	126423576
p-Dichlorobenzene (1,4-DCB)	1123030	ND	0.837	1.00	ug/L	126423576
Tetrachloroethylene	1123030	ND	0.607	1.00	ug/L	126423576
Toluene	1123030	ND	0.655	1.00	ug/L	126423576
trans-1,2-Dichloroethylene	1123030	ND	0.701	1.00	ug/L	126423576
trans-1,3-Dichloropropene	1123030	ND	0.627	1.00	ug/L	126423576
Trichloroethylene	1123030	ND	0.521	1.00	ug/L	126423576
Vinyl chloride	1123030	ND	0.702	1.00	ug/L	126423576

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	99990	99910	49960	149900	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	100400	99910	49960	149900	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	91680	99910	49960	149900	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	210300	205900	103000	308900	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	208900	205900	103000	308900	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	212500	205900	103000	308900	126423576	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	82270	99910	49960	149900	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	190600	205900	103000	308900	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423582	1123030

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS	11.97	11.97	11.91	12.03	126423573	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	LCS Dup	11.97	11.97	11.91	12.03	126423574	1123030
1,4-DichlorobenzeneD4 (ISTD)	1123030	Blank	11.97	11.97	11.91	12.03	126423576	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS	9.597	9.597	9.537	9.657	126423573	1123030
ChlorobenzeneD5 (ISTD)	1123030	LCS Dup	9.597	9.597	9.537	9.657	126423574	1123030
ChlorobenzeneD5 (ISTD)	1123030	Blank	9.597	9.597	9.537	9.657	126423576	1123030



SPAC-R

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423579	1123030
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423579	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423581	1123030
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423582	1123030
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423581	1123030
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423582	1123030

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1123030	20.7	20.2	20.0	70.0 - 130	104	101	ug/L	2.93	21.0
1,1,2,2-Tetrachloroethane	1123030	22.8	22.0	20.0	60.0 - 140	114	110	ug/L	3.57	36.0
1,1,2-Trichloroethane	1123030	21.3	21.8	20.0	70.0 - 130	106	109	ug/L	2.79	27.0
1,1-Dichloroethane	1123030	21.5	21.0	20.0	70.0 - 130	108	105	ug/L	2.82	24.0
1,1-Dichloroethylene	1123030	21.0	21.0	20.0	50.0 - 150	105	105	ug/L	0	40.0
1,2-Dibromoethane (EDB)	1123030	21.6	21.3	20.0	78.4 - 122	108	106	ug/L	1.87	30.0
1,2-Dichloroethane	1123030	21.6	21.9	20.0	70.0 - 130	108	110	ug/L	1.83	29.0
1,2-Dichloropropane	1123030	21.3	21.2	20.0	35.0 - 165	106	106	ug/L	0	69.0
Benzene	1123030	20.1	19.5	20.0	65.0 - 135	100	97.5	ug/L	2.53	33.0
Bromodichloromethane	1123030	21.8	21.3	20.0	65.0 - 135	109	106	ug/L	2.79	34.0
Bromoform	1123030	20.8	20.1	20.0	70.0 - 130	104	100	ug/L	3.92	25.0
Bromomethane (Methyl Bromi)	1123030	16.4	16.2	20.0	15.0 - 185	82.0	81.0	ug/L	1.23	90.0
Carbon Tetrachloride	1123030	21.9	21.4	20.0	70.0 - 130	110	107	ug/L	2.76	26.0
Chlorobenzene	1123030	20.1	20.2	20.0	65.0 - 135	100	101	ug/L	0.995	29.0
Chloroethane	1123030	19.6	19.7	20.0	40.0 - 160	98.0	98.5	ug/L	0.509	47.0
Chloroform	1123030	21.2	20.6	20.0	70.0 - 135	106	103	ug/L	2.87	32.0
Chloromethane (Methyl Chloride)	1123030	17.2	16.4	20.0	0.100 - 205	86.0	82.0	ug/L	4.76	472
cis-1,3-Dichloropropene	1123030	19.8	19.4	20.0	25.0 - 175	99.0	97.0	ug/L	2.04	79.0
Dibromochloromethane	1123030	21.0	20.7	20.0	70.0 - 135	105	104	ug/L	0.957	30.0
Dichloromethane	1123030	20.8	20.5	20.0	60.0 - 140	104	102	ug/L	1.94	192
Ethylbenzene	1123030	21.7	21.5	20.0	60.0 - 140	108	108	ug/L	0	34.0
m-Dichlorobenzene (1,3-DCB)	1123030	22.3	21.4	20.0	70.0 - 130	112	107	ug/L	4.57	24.0
Methyl ethyl ketone (Butanone)	1123030	23.2	23.3	20.0	62.3 - 136	116	116	ug/L	0	30.0
o-Dichlorobenzene (1,2-DCB)	1123030	21.5	20.9	20.0	65.0 - 135	108	104	ug/L	3.77	31.0
p-Dichlorobenzene (1,4-DCB)	1123030	21.3	21.1	20.0	65.0 - 135	106	106	ug/L	0	31.0
Tetrachloroethylene	1123030	21.2	20.9	20.0	70.0 - 130	106	104	ug/L	1.90	23.0
Toluene	1123030	19.5	19.5	20.0	70.0 - 130	97.5	97.5	ug/L	0	22.0
trans-1,2-Dichloroethylene	1123030	19.7	19.6	20.0	70.0 - 130	98.5	98.0	ug/L	0.509	27.0
trans-1,3-Dichloropropene	1123030	21.0	21.1	20.0	50.0 - 150	105	106	ug/L	0.948	52.0
Trichloroethylene	1123030	20.3	20.3	20.0	65.0 - 135	102	102	ug/L	0	29.0
Vinyl chloride	1123030	21.5	20.3	20.0	5.00 - 195	108	102	ug/L	5.71	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2305754	98.6	96.8	1.35	100	52.0 - 162	97.2	95.4	ug/L	1.87	36.0
1,1,2,2-Tetrachloroethane	2305754	106	106	1.35	100	46.0 - 157	105	105	ug/L	0	61.0

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,2-Trichloroethane	2305754	108	109	1.35	100	52.0 - 150	107	108	ug/L	0.933	45.0
1,1-Dichloroethane	2305754	104	105	1.35	100	59.0 - 155	103	104	ug/L	0.969	40.0
1,1-Dichloroethylene	2305754	105	113	1.35	100	0.100 - 234	104	112	ug/L	7.43	32.0
1,2-Dibromoethane (EDB)	2305754	104	108	1.35	100	49.3 - 120	103	107	ug/L	3.82	30.0
1,2-Dichloroethane	2305754	108	105	1.35	100	49.0 - 155	107	104	ug/L	2.85	49.0
1,2-Dichloropropane	2305754	104	103	1.35	100	0.100 - 210	103	102	ug/L	0.979	55.0
Benzene	2305754	96.8	97.4	1.35	100	37.0 - 151	95.4	96.0	ug/L	0.627	61.0
Bromodichloromethane	2305754	103	102	1.35	100	35.0 - 155	102	101	ug/L	0.989	56.0
Bromoform	2305754	91.6	92.0	1.35	100	45.0 - 169	90.2	90.6	ug/L	0.442	42.0
Bromomethane (Methyl Bromi)	2305754	69.5	70.4	1.35	100	0.100 - 242	68.2	69.0	ug/L	1.31	61.0
Carbon Tetrachloride	2305754	87.2	88.0	1.35	100	70.0 - 140	85.8	86.6	ug/L	0.928	41.0
Chlorobenzene	2305754	98.7	99.7	1.35	100	37.0 - 160	97.4	98.4	ug/L	1.02	53.0
Chloroethane	2305754	90.7	90.4	1.35	100	14.0 - 230	89.4	89.0	ug/L	0.336	78.0
Chloroform	2305754	101	105	1.35	100	51.0 - 138	99.6	104	ug/L	3.94	54.0
Chloromethane (Methyl Chloride)	2305754	80.2	78.5	1.35	100	0.100 - 273	78.8	77.2	ug/L	2.18	60.0
cis-1,3-Dichloropropene	2305754	92.9	92.6	1.35	100	0.100 - 227	91.6	91.2	ug/L	0.328	58.0
Dibromochloromethane	2305754	95.8	97.6	1.35	100	53.0 - 149	94.4	96.2	ug/L	1.89	50.0
Dichloromethane	2305754	105	104	1.35	100	0.100 - 221	104	103	ug/L	0.969	28.0
Ethylbenzene	2305754	103	104	1.35	100	37.0 - 162	102	103	ug/L	0.979	63.0
m-Dichlorobenzene (1,3-DCB)	2305754	106	107	1.35	100	59.0 - 156	105	106	ug/L	0.951	43.0
Methyl ethyl ketone (Butanone)	2305754	127	135	11.0	100	0.100 - 211	116	124	ug/L	6.67	30.0
o-Dichlorobenzene (1,2-DCB)	2305754	103	104	1.35	100	18.0 - 190	102	103	ug/L	0.979	57.0
p-Dichlorobenzene (1,4-DCB)	2305754	101	100	1.35	100	18.0 - 190	99.6	98.6	ug/L	1.01	57.0
Tetrachloroethylene	2305754	102	103	1.35	100	64.0 - 148	101	102	ug/L	0.989	39.0
Toluene	2305754	96.4	95.6	1.35	100	47.0 - 150	95.0	94.2	ug/L	0.845	41.0
trans-1,2-Dichloroethylene	2305754	96.6	94.2	1.35	100	54.0 - 156	95.2	92.8	ug/L	2.55	45.0
trans-1,3-Dichloropropene	2305754	98.9	103	1.35	100	17.0 - 183	97.6	102	ug/L	4.12	86.0
Trichloroethylene	2305754	104	103	1.35	100	70.0 - 157	103	102	ug/L	0.979	48.0
Vinyl chloride	2305754	82.4	82.4	1.35	100	0.100 - 251	81.0	81.0	ug/L	0	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123030	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423573
1,2-DCA-d4 (SURR)	1123030	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423574
1,2-DCA-d4 (SURR)	1123030	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423576
Bromofluorobenzene (SURR)	1123030	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423573
Bromofluorobenzene (SURR)	1123030	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423574
Bromofluorobenzene (SURR)	1123030	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423576
Dibromofluoromethane (SURR)	1123030	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423573
Dibromofluoromethane (SURR)	1123030	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423574
Dibromofluoromethane (SURR)	1123030	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423576
TolueneD8 (SURR)	1123030	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423573
TolueneD8 (SURR)	1123030	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423574
TolueneD8 (SURR)	1123030	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423576
1,2-DCA-d4 (SURR)	2305623	Unknown	21.5	20.0	ug/L	108	70.0 - 130	126423579

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SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Bromofluorobenzene (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423579
Dibromofluoromethane (SURR)	2305623	Unknown	19.6	20.0	ug/L	98.0	70.0 - 130	126423579
TolueneD8 (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423579
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423581
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423582
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423581
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423582
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423581
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423582
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423581
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423582

Analytical Set

1123033

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1123033	174	140	1.3	0 - 2.00	126423603
BFB Mass 174	1123033	95.0	10384	56.9	50.0 - 100	126423603
BFB Mass 175	1123033	174	921	8.9	5.00 - 9.00	126423603
BFB Mass 176	1123033	174	10267	98.9	95.0 - 101	126423603
BFB Mass 177	1123033	176	672	6.5	5.00 - 9.00	126423603
BFB Mass 50	1123033	95.0	4030	22.1	15.0 - 40.0	126423603
BFB Mass 75	1123033	95.0	9801	53.7	30.0 - 60.0	126423603
BFB Mass 95	1123033	95.0	18235	100.0	100 - 100	126423603
BFB Mass 96	1123033	95.0	1272	7.0	5.00 - 9.00	126423603

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Acrolein	1123033	ND	2.33	4.00	ug/L	126423607
Acrylonitrile	1123033	ND	0.998	1.00	ug/L	126423607

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	99990	99910	49960	149900	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	100400	99910	49960	149900	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	91680	99910	49960	149900	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	210300	205900	103000	308900	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	208900	205900	103000	308900	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	212500	205900	103000	308900	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	85540	99910	49960	149900	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	196700	205900	103000	308900	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	91100	99910	49960	149900	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	90720	99910	49960	149900	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	187900	205900	103000	308900	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	185900	205900	103000	308900	126423612	1123033

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SPAC-R

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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS	11.97	11.97	11.91	12.03	126423604	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	LCS Dup	11.97	11.97	11.91	12.03	126423605	1123033
1,4-DichlorobenzeneD4 (ISTD)	1123033	Blank	11.97	11.97	11.91	12.03	126423607	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS	9.597	9.597	9.537	9.657	126423604	1123033
ChlorobenzeneD5 (ISTD)	1123033	LCS Dup	9.597	9.597	9.537	9.657	126423605	1123033
ChlorobenzeneD5 (ISTD)	1123033	Blank	9.597	9.597	9.537	9.657	126423607	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305623	Unknown	11.97	11.97	11.91	12.03	126423608	1123033
ChlorobenzeneD5 (ISTD)	2305623	Unknown	9.597	9.597	9.537	9.657	126423608	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MS	11.97	11.97	11.91	12.03	126423611	1123033
1,4-DichlorobenzeneD4 (ISTD)	2305754	MSD	11.97	11.97	11.91	12.03	126423612	1123033
ChlorobenzeneD5 (ISTD)	2305754	MS	9.597	9.597	9.537	9.657	126423611	1123033
ChlorobenzeneD5 (ISTD)	2305754	MSD	9.597	9.597	9.537	9.657	126423612	1123033

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1123033	60.6	52.2	40.0	60.0 - 140	152 *	130	ug/L	15.6	30.0
Acrylonitrile	1123033	43.8	46.4	40.0	60.0 - 140	110	116	ug/L	5.31	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2305754	21.3	13.6	ND	200	40.0 - 160	10.6 *	6.80 *	ug/L	44.1	60.0
Acrylonitrile	2305754	251	247	ND	200	40.0 - 160	126	124	ug/L	1.61	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1123033	LCS	20.2	20.0	ug/L	101	70.0 - 130	126423604
1,2-DCA-d4 (SURR)	1123033	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	126423605
1,2-DCA-d4 (SURR)	1123033	Blank	21.0	20.0	ug/L	105	70.0 - 130	126423607
Bromofluorobenzene (SURR)	1123033	LCS	19.4	20.0	ug/L	97.0	70.0 - 130	126423604
Bromofluorobenzene (SURR)	1123033	LCS Dup	19.0	20.0	ug/L	95.0	70.0 - 130	126423605
Bromofluorobenzene (SURR)	1123033	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	126423607
Dibromofluoromethane (SURR)	1123033	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	126423604
Dibromofluoromethane (SURR)	1123033	LCS Dup	19.9	20.0	ug/L	99.5	70.0 - 130	126423605
Dibromofluoromethane (SURR)	1123033	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	126423607
TolueneD8 (SURR)	1123033	LCS	19.8	20.0	ug/L	99.0	70.0 - 130	126423604
TolueneD8 (SURR)	1123033	LCS Dup	19.5	20.0	ug/L	97.5	70.0 - 130	126423605
TolueneD8 (SURR)	1123033	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	126423607
1,2-DCA-d4 (SURR)	2305623	Unknown	20.5	20.0	ug/L	102	70.0 - 130	126423608
Bromofluorobenzene (SURR)	2305623	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	126423608
Dibromofluoromethane (SURR)	2305623	Unknown	19.0	20.0	ug/L	95.0	70.0 - 130	126423608
TolueneD8 (SURR)	2305623	Unknown	19.5	20.0	ug/L	97.5	70.0 - 130	126423608
1,2-DCA-d4 (SURR)	2305754	MS	20.8	20.0	ug/L	104	70.0 - 130	126423611
1,2-DCA-d4 (SURR)	2305754	MSD	20.7	20.0	ug/L	104	70.0 - 130	126423612
Bromofluorobenzene (SURR)	2305754	MS	18.5	20.0	ug/L	92.5	70.0 - 130	126423611
Bromofluorobenzene (SURR)	2305754	MSD	19.0	20.0	ug/L	95.0	70.0 - 130	126423612
Dibromofluoromethane (SURR)	2305754	MS	20.1	20.0	ug/L	100	70.0 - 130	126423611

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QUALITY CONTROL



SPAC-R

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dibromofluoromethane (SURR)	2305754	MSD	20.2	20.0	ug/L	101	70.0 - 130	126423612
TolueneD8 (SURR)	2305754	MS	19.7	20.0	ug/L	98.5	70.0 - 130	126423611
TolueneD8 (SURR)	2305754	MSD	20.0	20.0	ug/L	100	70.0 - 130	126423612

Analytical Set

1123853

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1123138	ND	0.202	0.202	ug/L	126443786
PCB-1221	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1232	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1242	1123138	ND	0.192	0.200	ug/L	126443786
PCB-1248	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1254	1123138	ND	0.143	0.200	ug/L	126443786
PCB-1260	1123138	ND	0.161	0.200	ug/L	126443786
PCB-1262	1123138	ND	0.198	0.200	ug/L	126443786
PCB-1268	1123138	ND	0.143	0.200	ug/L	126443786

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	983	1000	ug/L	98.3	80.0 - 115	126443779
PCB-1016	1060	1000	ug/L	106	80.0 - 115	126443785
PCB-1016	1130	1000	ug/L	113	80.0 - 115	126443793
PCB-1260	881	1000	ug/L	88.1	80.0 - 115	126443779
PCB-1260	911	1000	ug/L	91.1	80.0 - 115	126443785
PCB-1260	945	1000	ug/L	94.5	80.0 - 115	126443793

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1123138	798	887	1000	39.8 - 135	79.8	88.7	ug/L	10.6	30.0
PCB-1260	1123138	649	755	1000	36.1 - 134	64.9	75.5	ug/L	15.1	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1123138	Blank	45.3	100	ug/L	45.3	10.0 - 200	126443786
Tetrachloro-m-Xylene (Surr)	1123138	Blank	48.5	100	ug/L	48.5	10.0 - 200	126443786
Decachlorobiphenyl	2305623	Unknown	0.580	0.976	ug/L	59.4	10.0 - 200	126443791
Tetrachloro-m-Xylene (Surr)	2305623	Unknown	0.578	0.976	ug/L	59.2	10.0 - 200	126443791

Analytical Set

1124948

ASTM D7065-11

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1124341	ND	5.00	30.0	ug/L	126470972

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	150000	150000	ug/L	99.8	70.0 - 130	126470971

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SPAC-R

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Nonylphenol	164000	150000	ug/L	110	70.0 - 130	126470983

IS Areas

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>	
Acenaphthene-d10-ISTD	624841	CCV	669900	669900	335000	1005000	126470971	624841	
Acenaphthene-d10-ISTD	624841	CCV	645200	669900	335000	1005000	126470983	624841	
Phenanthrene-d10-ISTD	624841	CCV	892600	892600	446300	1339000	126470971	624841	
Phenanthrene-d10-ISTD	624841	CCV	934700	892600	446300	1339000	126470983	624841	
Acenaphthene-d10-ISTD	1124341	Blank	1550000	669900	335000	1005000	*	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	1124000	669900	335000	1005000	*	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	1144000	669900	335000	1005000	*	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	1577000	892600	446300	1339000	*	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	1107000	892600	446300	1339000		126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	1139000	892600	446300	1339000		126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	1184000	669900	335000	1005000	*	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	892600	892600	446300	1339000		126470977	1124341

IS RetTime

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>CCVISM</u>	<u>Low</u>	<u>High</u>	<u>File</u>	<u>PrepSet</u>
Acenaphthene-d10-ISTD	624841	CCV	7.217	7.217	7.157	7.277	126470971	624841
Acenaphthene-d10-ISTD	624841	CCV	7.211	7.217	7.157	7.277	126470983	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470971	624841
Phenanthrene-d10-ISTD	624841	CCV	8.450	8.450	8.390	8.510	126470983	624841
Acenaphthene-d10-ISTD	1124341	Blank	7.211	7.217	7.157	7.277	126470972	1124341
Acenaphthene-d10-ISTD	1124341	LCS	7.211	7.217	7.157	7.277	126470973	1124341
Acenaphthene-d10-ISTD	1124341	LCS Dup	7.211	7.217	7.157	7.277	126470974	1124341
Phenanthrene-d10-ISTD	1124341	Blank	8.450	8.450	8.390	8.510	126470972	1124341
Phenanthrene-d10-ISTD	1124341	LCS	8.455	8.450	8.390	8.510	126470973	1124341
Phenanthrene-d10-ISTD	1124341	LCS Dup	8.456	8.450	8.390	8.510	126470974	1124341
Acenaphthene-d10-ISTD	2305623	Unknown	7.211	7.217	7.157	7.277	126470977	1124341
Phenanthrene-d10-ISTD	2305623	Unknown	8.456	8.450	8.390	8.510	126470977	1124341

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Nonylphenol	1124341	49.1	72.7	150	56.0 - 112	32.7 *	48.5 *	ug/L	38.9 *	30.0

Surrogate

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
4-Nonylphenol-SURR	624841	CCV	28300	25000	ug/L	113	50.0 - 130	126470971
4-Nonylphenol-SURR	624841	CCV	29600	25000	ug/L	118	50.0 - 130	126470983
4-Nonylphenol-SURR	1124341	Blank	14700	25000	ug/L	58.8	50.0 - 130	126470972
4-Nonylphenol-SURR	1124341	LCS	16200	25000	ug/L	64.8	50.0 - 130	126470973
4-Nonylphenol-SURR	1124341	LCS Dup	24000	25000	ug/L	96.0	50.0 - 130	126470974
4-Nonylphenol-SURR	2305623	Unknown	32.6	29.0	ug/L	112	50.0 - 130	126470977

Analytical Set

1125008

EPA 625.1

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QUALITY CONTROL



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1123370	ND	1.03	1.03	ug/L	126472016
1,2,4-Trichlorobenzene	1123370	ND	0.941	1.00	ug/L	126472016
1,2-Dichlorobenzene	1123370	ND	1.04	5.00	ug/L	126472016
1,2-DPH (as azobenzene)	1123370	ND	0.238	1.00	ug/L	126472016
1,3-Dichlorobenzene	1123370	ND	0.954	5.00	ug/L	126472016
1,4-Dichlorobenzene	1123370	ND	1.01	5.00	ug/L	126472016
2,4,5-Trichlorophenol	1123370	ND	0.961	5.00	ug/L	126472016
2,4,6-Trichlorophenol	1123370	ND	1.24	2.00	ug/L	126472016
2,4-Dichlorophenol	1123370	ND	0.222	1.00	ug/L	126472016
2,4-Dimethylphenol	1123370	ND	0.536	1.00	ug/L	126472016
2,4-Dinitrophenol	1123370	ND	1.34	2.00	ug/L	126472016
2,4-Dinitrotoluene	1123370	ND	1.35	2.00	ug/L	126472016
2,6-Dinitrotoluene	1123370	ND	1.29	2.00	ug/L	126472016
2-Chloronaphthalene	1123370	ND	0.150	1.00	ug/L	126472016
2-Chlorophenol	1123370	ND	0.275	1.00	ug/L	126472016
2-Methylphenol (o-Cresol)	1123370	ND	8.48	10.0	ug/L	126472016
2-Nitrophenol	1123370	ND	0.554	1.00	ug/L	126472016
3&4-Methylphenol (m&p-Cresol)	1123370	ND	7.78	8.00	ug/L	126472016
3,3'-Dichlorobenzidine	1123370	ND	1.39	2.00	ug/L	126472016
4,6-Dinitro-2-methylphenol	1123370	ND	1.15	2.00	ug/L	126472016
4-Bromophenyl phenyl ether	1123370	ND	0.772	1.00	ug/L	126472016
4-Chlorophenyl phenyl ethe	1123370	ND	0.202	1.00	ug/L	126472016
4-Nitrophenol	1123370	ND	0.789	1.00	ug/L	126472016
Acenaphthene	1123370	ND	0.177	1.00	ug/L	126472016
Acenaphthylene	1123370	ND	0.240	1.00	ug/L	126472016
Aniline	1123370	ND	2470	2470	ug/L	126472016
Anthracene	1123370	ND	0.241	1.00	ug/L	126472016
Benzidine	1123370	ND	1.40	1.50	ug/L	126472016
Benzo(a)anthracene	1123370	ND	0.225	1.00	ug/L	126472016
Benzo(a)pyrene	1123370	ND	0.900	1.00	ug/L	126472016
Benzo(b)fluoranthene	1123370	ND	0.547	1.00	ug/L	126472016
Benzo(ghi)perylene	1123370	ND	0.881	1.00	ug/L	126472016
Benzo(k)fluoranthene	1123370	ND	0.252	1.00	ug/L	126472016
Benzyl Butyl phthalate	1123370	0.320	0.204	7.50	ug/L	126472016
Bis(2-chloroethoxy)methane	1123370	ND	0.277	1.00	ug/L	126472016
Bis(2-chloroethyl)ether	1123370	ND	0.348	1.00	ug/L	126472016
Bis(2-chloroisopropyl)ether	1123370	ND	0.738	1.00	ug/L	126472016
Bis(2-ethylhexyl)phthalate	1123370	ND	1.12	7.50	ug/L	126472016
Chrysene (Benzo(a)phenanthrene)	1123370	ND	0.289	1.00	ug/L	126472016
Dibenz(a,h)anthracene	1123370	ND	0.689	1.00	ug/L	126472016
Diethyl phthalate	1123370	ND	0.253	5.70	ug/L	126472016
Dimethyl phthalate	1123370	ND	0.540	4.80	ug/L	126472016
Di-n-butylphthalate	1123370	ND	0.978	7.50	ug/L	126472016
Di-n-octylphthalate	1123370	ND	1.92	2.00	ug/L	126472016
Fluoranthene(Benzo(j,k)fluorene)	1123370	ND	0.318	1.00	ug/L	126472016

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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Fluorene	1123370	ND	0.275	1.00	ug/L	126472016
Hexachlorobenzene	1123370	ND	0.871	1.00	ug/L	126472016
Hexachlorobutadiene	1123370	ND	1.03	1.03	ug/L	126472016
Hexachlorocyclopentadiene	1123370	ND	0.536	1.00	ug/L	126472016
Hexachloroethane	1123370	ND	1.05	2.00	ug/L	126472016
Indeno(1,2,3-cd)pyrene	1123370	ND	0.596	1.00	ug/L	126472016
Isophorone	1123370	ND	0.429	1.00	ug/L	126472016
Naphthalene	1123370	ND	0.225	1.00	ug/L	126472016
Nitrobenzene	1123370	ND	0.271	1.00	ug/L	126472016
n-Nitrosodiethylamine	1123370	ND	0.747	1.00	ug/L	126472016
N-Nitrosodimethylamine	1123370	ND	0.542	1.00	ug/L	126472016
n-Nitroso-di-n-butylamine	1123370	ND	0.210	1.00	ug/L	126472016
N-Nitrosodi-n-propylamine	1123370	ND	0.425	1.00	ug/L	126472016
N-Nitrosodiphenylamine (as DPA)	1123370	ND	0.404	1.00	ug/L	126472016
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	ND	0.588	1.00	ug/L	126472016
Pentachlorobenzene	1123370	ND	0.977	1.00	ug/L	126472016
Pentachlorophenol	1123370	ND	0.960	5.00	ug/L	126472016
Phenanthrene	1123370	ND	0.269	1.00	ug/L	126472016
Phenol	1123370	ND	0.332	1.00	ug/L	126472016
Pyrene	1123370	ND	0.291	1.00	ug/L	126472016
Pyridine	1123370	ND	1.35	1.35	ug/L	126472016

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
1,2,4,5-Tetrachlorobenzene	48400	50000	ug/L	96.8	60.0 - 140	126472015
1,2,4-Trichlorobenzene	50400	50000	ug/L	101	61.0 - 130	126472015
1,2-Dichlorobenzene	45200	50000	ug/L	90.4	60.0 - 140	126472015
1,2-DPH (as azobenzene)	48600	50000	ug/L	97.2	60.0 - 140	126472015
1,3-Dichlorobenzene	49100	50000	ug/L	98.2	60.0 - 140	126472015
1,4-Dichlorobenzene	45300	50000	ug/L	90.6	60.0 - 140	126472015
2,4,5-Trichlorophenol	49800	50000	ug/L	99.6	69.0 - 130	126472015
2,4,6-Trichlorophenol	47800	50000	ug/L	95.6	69.0 - 130	126472015
2,4-Dichlorophenol	47300	50000	ug/L	94.6	64.0 - 130	126472015
2,4-Dimethylphenol	43300	50000	ug/L	86.6	58.0 - 130	126472015
2,4-Dinitrophenol	46400	50000	ug/L	92.8	39.0 - 173	126472015
2,4-Dinitrotoluene	45900	50000	ug/L	91.8	53.0 - 130	126472015
2,6-Dinitrotoluene	50200	50000	ug/L	100	68.0 - 137	126472015
2-Chloronaphthalene	52700	50000	ug/L	105	70.0 - 130	126472015
2-Chlorophenol	48600	50000	ug/L	97.2	55.0 - 130	126472015
2-Methylphenol (o-Cresol)	43400	50000	ug/L	86.8	60.0 - 140	126472015
2-Nitrophenol	49800	50000	ug/L	99.6	61.0 - 163	126472015
3&4-Methylphenol (m&p-Cresol)	41100	50000	ug/L	82.2	60.0 - 140	126472015
3,3'-Dichlorobenzidine	56400	50000	ug/L	113	18.0 - 213	126472015
4,6-Dinitro-2-methylphenol	43200	50000	ug/L	86.4	56.0 - 130	126472015
4-Bromophenyl phenyl ether	49000	50000	ug/L	98.0	70.0 - 130	126472015

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SPAC-R

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
4-Chlorophenyl phenyl ethe	46000	50000	ug/L	92.0	57.0 - 145	126472015
4-Nitrophenol	34100	50000	ug/L	68.2	35.0 - 135	126472015
Acenaphthene	48200	50000	ug/L	96.4	70.0 - 130	126472015
Acenaphthylene	50500	50000	ug/L	101	60.0 - 130	126472015
Aniline	41400	50000	ug/L	82.8	60.0 - 140	126472015
Anthracene	46800	50000	ug/L	93.6	58.0 - 130	126472015
Benzidine	25700	50000	ug/L	51.4	20.0 - 180	126472015
Benzo(a)anthracene	53100	50000	ug/L	106	42.0 - 133	126472015
Benzo(a)pyrene	52600	50000	ug/L	105	32.0 - 148	126472015
Benzo(b)fluoranthene	49800	50000	ug/L	99.6	42.0 - 140	126472015
Benzo(ghi)perylene	61200	50000	ug/L	122	13.0 - 195	126472015
Benzo(k)fluoranthene	53200	50000	ug/L	106	25.0 - 146	126472015
Benzyl Butyl phthalate	65700	50000	ug/L	131	43.0 - 140	126472015
Bis(2-chloroethoxy)methane	51200	50000	ug/L	102	52.0 - 164	126472015
Bis(2-chloroethyl)ether	49000	50000	ug/L	98.0	52.0 - 130	126472015
Bis(2-chloroisopropyl)ether	47200	50000	ug/L	94.4	63.0 - 139	126472015
Bis(2-ethylhexyl)phthalate	67700	50000	ug/L	135	43.0 - 137	126472015
Chrysene (Benzo(a)phenanthrene)	53500	50000	ug/L	107	44.0 - 140	126472015
Dibenz(a,h)anthracene	57200	50000	ug/L	114	13.0 - 200	126472015
Diethyl phthalate	44300	50000	ug/L	88.6	47.0 - 130	126472015
Dimethyl phthalate	48700	50000	ug/L	97.4	50.0 - 130	126472015
Di-n-butylphthalate	47800	50000	ug/L	95.6	52.0 - 130	126472015
Di-n-octylphthalate	72400	50000	ug/L	145	21.0 - 132 *	126472015
Fluoranthene(Benzo(j,k)fluorene)	45100	50000	ug/L	90.2	47.0 - 130	126472015
Fluorene	45800	50000	ug/L	91.6	70.0 - 130	126472015
Hexachlorobenzene	50300	50000	ug/L	101	38.0 - 142	126472015
Hexachlorobutadiene	41900	50000	ug/L	83.8	68.0 - 130	126472015
Hexachlorocyclopentadiene	58200	50000	ug/L	116	60.0 - 140	126472015
Hexachloroethane	42200	50000	ug/L	84.4	55.0 - 130	126472015
Indeno(1,2,3-cd)pyrene	56400	50000	ug/L	113	13.0 - 151	126472015
Isophorone	54600	50000	ug/L	109	52.0 - 180	126472015
Naphthalene	45000	50000	ug/L	90.0	70.0 - 130	126472015
Nitrobenzene	49200	50000	ug/L	98.4	54.0 - 158	126472015
n-Nitrosodiethylamine	52800	50000	ug/L	106	60.0 - 140	126472015
N-Nitrosodimethylamine	49200	50000	ug/L	98.4	60.0 - 140	126472015
n-Nitroso-di-n-butylamine	46000	50000	ug/L	92.0	60.0 - 140	126472015
N-Nitrosodi-n-propylamine	44900	50000	ug/L	89.8	59.0 - 170	126472015
N-Nitrosodiphenylamine (as DPA	42400	50000	ug/L	84.8	60.0 - 140	126472015
p-Chloro-m-Cresol (4-Chloro-3-me	43900	50000	ug/L	87.8	68.0 - 130	126472015
Pentachlorobenzene	45900	50000	ug/L	91.8	60.0 - 140	126472015
Pentachlorophenol	45500	50000	ug/L	91.0	42.0 - 152	126472015
Phenanthrene	43800	50000	ug/L	87.6	67.0 - 130	126472015
Phenol	43300	50000	ug/L	86.6	48.0 - 130	126472015
Pyrene	61200	50000	ug/L	122	70.0 - 130	126472015
Pyridine	55600	50000	ug/L	111	60.0 - 140	126472015

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SPAC-R

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DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 127	625102	198	5830	54.7	40.0 - 60.0	126472013
DFTPP Mass 197	625102	198	0	0.0	0 - 1.00	126472013
DFTPP Mass 198	625102	198	10662	100.0	100 - 100	126472013
DFTPP Mass 199	625102	198	719	6.7	5.00 - 9.00	126472013
DFTPP Mass 275	625102	198	3008	28.2	10.0 - 30.0	126472013
DFTPP Mass 365	625102	198	568	5.3	1.00 - 100	126472013
DFTPP Mass 441	625102	443	968	54.8	0 - 100	126472013
DFTPP Mass 442	625102	198	9092	85.3	40.0 - 100	126472013
DFTPP Mass 443	625102	442	1766	19.4	17.0 - 23.0	126472013
DFTPP Mass 51	625102	198	3355	31.5	30.0 - 60.0	126472013
DFTPP Mass 68	625102	69.0	2	0.1	0 - 2.00	126472013
DFTPP Mass 69	625102	198	3774	35.4	0 - 100	126472013
DFTPP Mass 70	625102	69.0	19	0.5	0 - 2.00	126472013

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1123370	8.56	7.91	12.5	27.5 - 85.5	68.5	63.3	ug/L	7.89	50.0
1,2,4-Trichlorobenzene	1123370	7.85	7.36	12.5	44.0 - 142	62.8	58.9	ug/L	6.41	50.0
1,2-Dichlorobenzene	1123370	7.39	7.33	12.5	23.0 - 81.8	59.1	58.6	ug/L	0.850	50.0
1,2-DPH (as azobenzene)	1123370	10.1	10.8	12.5	12.6 - 110	80.8	86.4	ug/L	6.70	50.0
1,3-Dichlorobenzene	1123370	7.20	6.99	12.5	21.1 - 80.5	57.6	55.9	ug/L	3.00	50.0
1,4-Dichlorobenzene	1123370	7.05	6.92	12.5	21.4 - 76.9	56.4	55.4	ug/L	1.79	50.0
2,4,5-Trichlorophenol	1123370	8.80	10.9	12.5	51.3 - 109	70.4	87.2	ug/L	21.3	50.0
2,4,6-Trichlorophenol	1123370	12.9	10.7	12.5	37.0 - 144	103	85.6	ug/L	18.5	58.0
2,4-Dichlorophenol	1123370	10.0	9.85	12.5	39.0 - 135	80.0	78.8	ug/L	1.51	50.0
2,4-Dimethylphenol	1123370	4.48	3.06	12.5	23.0 - 120	35.8	24.5	ug/L	37.5	68.0
2,4-Dinitrophenol	1123370	7.87	10.0	12.5	0.100 - 191	63.0	80.0	ug/L	23.8	132
2,4-Dinitrotoluene	1123370	7.76	10.3	12.5	39.0 - 139	62.1	82.4	ug/L	28.1	42.0
2,6-Dinitrotoluene	1123370	10.6	11.2	12.5	50.0 - 158	84.8	89.6	ug/L	5.50	48.0
2-Chloronaphthalene	1123370	11.0	9.44	12.5	60.0 - 120	88.0	75.5	ug/L	15.3	24.0
2-Chlorophenol	1123370	9.81	9.73	12.5	23.0 - 134	78.5	77.8	ug/L	0.896	61.0
2-Methylphenol (o-Cresol)	1123370	8.90	8.25	12.5	38.9 - 76.1	71.2	66.0	ug/L	7.58	50.0
2-Nitrophenol	1123370	10.3	9.68	12.5	29.0 - 182	82.4	77.4	ug/L	6.26	55.0
3&4-Methylphenol (m&p-Cresol)	1123370	7.92	7.53	12.5	33.0 - 70.4	63.4	60.2	ug/L	5.18	50.0
3,3'-Dichlorobenzidine	1123370	8.29	8.76	12.5	0.100 - 262	66.3	70.1	ug/L	5.57	108
4,6-Dinitro-2-methylphenol	1123370	9.49	9.53	12.5	0.100 - 181	75.9	76.2	ug/L	0.394	203
4-Bromophenyl phenyl ether	1123370	10.5	9.96	12.5	53.0 - 127	84.0	79.7	ug/L	5.25	43.0
4-Chlorophenyl phenyl ether	1123370	8.68	8.26	12.5	25.0 - 158	69.4	66.1	ug/L	4.87	61.0
4-Nitrophenol	1123370	3.31	3.46	12.5	0.100 - 132	26.5	27.7	ug/L	4.43	131
Acenaphthene	1123370	9.39	9.40	12.5	47.0 - 145	75.1	75.2	ug/L	0.133	48.0
Acenaphthylene	1123370	9.98	9.91	12.5	33.0 - 145	79.8	79.3	ug/L	0.629	74.0
Aniline	1123370	6760	7050	12500	70.0 - 130	54.1 *	56.4 *	ug/L	4.16	50.0
Anthracene	1123370	9.54	10.3	12.5	27.0 - 133	76.3	82.4	ug/L	7.69	66.0
Benzidine	1123370	0.830	0.290	12.5	0.100 - 36.9	6.64	2.32	ug/L	96.4 *	90.0
Benzo(a)anthracene	1123370	10.1	10.6	12.5	33.0 - 143	80.8	84.8	ug/L	4.83	53.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Benzo(a)pyrene	1123370	9.62	10.3	12.5	17.0 - 163	77.0	82.4	ug/L	6.78	72.0
Benzo(b)fluoranthene	1123370	9.52	9.98	12.5	24.0 - 159	76.2	79.8	ug/L	4.62	71.0
Benzo(ghi)perylene	1123370	11.4	11.7	12.5	0.100 - 219	91.2	93.6	ug/L	2.60	97.0
Benzo(k)fluoranthene	1123370	10.1	11.8	12.5	11.0 - 162	80.8	94.4	ug/L	15.5	63.0
Benzyl Butyl phthalate	1123370	13.3	14.0	12.5	0.100 - 152	106	112	ug/L	5.50	60.0
Bis(2-chloroethoxy)methane	1123370	10.6	10.1	12.5	33.0 - 184	84.8	80.8	ug/L	4.83	54.0
Bis(2-chloroisopropyl)ether	1123370	9.61	9.45	12.5	12.0 - 158	76.9	75.6	ug/L	1.70	108
Bis(2-chloroisopropyl)ether	1123370	9.85	9.68	12.5	36.0 - 166	78.8	77.4	ug/L	1.79	76.0
Bis(2-ethylhexyl)phthalate	1123370	14.4	15.7	12.5	8.00 - 158	115	126	ug/L	9.13	82.0
Chrysene (Benzo(a)phenanthrene)	1123370	10.2	10.9	12.5	17.0 - 168	81.6	87.2	ug/L	6.64	87.0
Dibenz(a,h)anthracene	1123370	10.6	10.6	12.5	0.100 - 227	84.8	84.8	ug/L	0	126
Diethyl phthalate	1123370	10.2	10.3	12.5	0.100 - 120	81.6	82.4	ug/L	0.976	100
Dimethyl phthalate	1123370	10.7	10.9	12.5	0.100 - 120	85.6	87.2	ug/L	1.85	183
Di-n-butylphthalate	1123370	10.9	11.3	12.5	1.00 - 120	87.2	90.4	ug/L	3.60	47.0
Di-n-octylphthalate	1123370	12.7	14.1	12.5	4.00 - 146	102	113	ug/L	10.2	69.0
Fluoranthene(Benzo(j,k)fluorene)	1123370	8.22	9.10	12.5	26.0 - 137	65.8	72.8	ug/L	10.1	66.0
Fluorene	1123370	9.42	8.92	12.5	59.0 - 121	75.4	71.4	ug/L	5.45	38.0
Hexachlorobenzene	1123370	9.89	9.38	12.5	0.100 - 152	79.1	75.0	ug/L	5.32	55.0
Hexachlorobutadiene	1123370	5.50	5.15	12.5	24.0 - 120	44.0	41.2	ug/L	6.57	62.0
Hexachlorocyclopentadiene	1123370	4.95	5.88	12.5	3.97 - 68.7	39.6	47.0	ug/L	17.1	50.0
Hexachloroethane	1123370	6.02	5.94	12.5	40.0 - 120	48.2	47.5	ug/L	1.46	52.0
Indeno(1,2,3-cd)pyrene	1123370	10.6	10.6	12.5	0.100 - 171	84.8	84.8	ug/L	0	99.0
Isophorone	1123370	9.51	9.45	12.5	21.0 - 196	76.1	75.6	ug/L	0.659	93.0
Naphthalene	1123370	8.38	8.02	12.5	21.0 - 133	67.0	64.2	ug/L	4.27	65.0
Nitrobenzene	1123370	9.82	9.26	12.5	35.0 - 180	78.6	74.1	ug/L	5.89	62.0
n-Nitrosodiethylamine	1123370	9.08	9.19	12.5	18.0 - 100	72.6	73.5	ug/L	1.23	50.0
N-Nitrosodimethylamine	1123370	6.81	7.02	12.5	30.2 - 74.9	54.5	56.2	ug/L	3.07	50.0
n-Nitroso-di-n-butylamine	1123370	9.13	9.24	12.5	48.4 - 98.5	73.0	73.9	ug/L	1.23	50.0
N-Nitrosodi-n-propylamine	1123370	9.57	9.45	12.5	0.100 - 230	76.6	75.6	ug/L	1.31	87.0
N-Nitrosodiphenylamine (as DPA	1123370	11.2	10.9	12.5	49.3 - 94.2	89.6	87.2	ug/L	2.71	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1123370	9.26	9.52	12.5	22.0 - 147	74.1	76.2	ug/L	2.79	70.0
Pentachlorobenzene	1123370	7.91	7.85	12.5	39.3 - 93.7	63.3	62.8	ug/L	0.793	50.0
Pentachlorophenol	1123370	9.96	10.9	12.5	14.0 - 176	79.7	87.2	ug/L	8.99	86.0
Phenanthrene	1123370	10.4	10.7	12.5	54.0 - 120	83.2	85.6	ug/L	2.84	39.0
Phenol	1123370	4.83	4.79	12.5	5.00 - 120	38.6	38.3	ug/L	0.780	64.0
Pyrene	1123370	12.6	13.3	12.5	52.0 - 120	101	106	ug/L	4.83	49.0
Pyridine	1123370	7.99	6.84	12.5	11.2 - 50.6	63.9 *	54.7 *	ug/L	15.5	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	625306	CCV	44300	100000	ug/L	44.3	10.0 - 150	126472015
2-Fluorophenol-SURR	625306	CCV	53500	100000	ug/L	53.5	10.0 - 150	126472015
4-Terphenyl-d14-SURR	625306	CCV	56500	50000	ug/L	113	30.0 - 150	126472015
Nitrobenzene-d5-SURR	625306	CCV	53100	50000	ug/L	106	30.0 - 150	126472015
Phenol-d6-SURR	625306	CCV	49000	100000	ug/L	49.0	10.0 - 150	126472015

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Surrogate

<u>Parameter</u>	<u>Sample</u>	<u>Type</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
2,4,6-Tribromophenol	1123370	Blank	54.5	100	ug/L	54.5	10.0 - 150	126472016
2,4,6-Tribromophenol	1123370	LCS	50.5	100	ug/L	50.5	10.0 - 150	126472017
2,4,6-Tribromophenol	1123370	LCS Dup	54.4	100	ug/L	54.4	10.0 - 150	126472018
2-Fluorophenol-SURR	1123370	Blank	35000	100000	ug/L	35.0	10.0 - 150	126472016
2-Fluorophenol-SURR	1123370	LCS	33200	100000	ug/L	33.2	10.0 - 150	126472017
2-Fluorophenol-SURR	1123370	LCS Dup	31900	100000	ug/L	31.9	10.0 - 150	126472018
4-Terphenyl-d14-SURR	1123370	Blank	37600	50000	ug/L	75.2	30.0 - 150	126472016
4-Terphenyl-d14-SURR	1123370	LCS	22800	50000	ug/L	45.6	30.0 - 150	126472017
4-Terphenyl-d14-SURR	1123370	LCS Dup	23700	50000	ug/L	47.4	30.0 - 150	126472018
Nitrobenzene-d5-SURR	1123370	Blank	35200	50000	ug/L	70.4	30.0 - 150	126472016
Nitrobenzene-d5-SURR	1123370	LCS	19800	50000	ug/L	39.6	30.0 - 150	126472017
Nitrobenzene-d5-SURR	1123370	LCS Dup	18500	50000	ug/L	37.0	30.0 - 150	126472018
Phenol-d6-SURR	1123370	Blank	26200	100000	ug/L	26.2	10.0 - 150	126472016
Phenol-d6-SURR	1123370	LCS	24500	100000	ug/L	24.5	10.0 - 150	126472017
Phenol-d6-SURR	1123370	LCS Dup	24200	100000	ug/L	24.2	10.0 - 150	126472018
2,4,6-Tribromophenol	2305623	Unknown	62.7	106	ug/L	59.2	10.0 - 150	126472019
2-Fluorophenol-SURR	2305623	Unknown	40.7	106	ug/L	38.4	10.0 - 150	126472019
4-Terphenyl-d14-SURR	2305623	Unknown	43.4	53.2	ug/L	81.6	30.0 - 150	126472019
Nitrobenzene-d5-SURR	2305623	Unknown	35.0	53.2	ug/L	65.8	30.0 - 150	126472019
Phenol-d6-SURR	2305623	Unknown	31.0	106	ug/L	29.2	10.0 - 150	126472019

Analytical Set

1123135

SM 4500-P E-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Phosphorus (as P), total	0.0639	0.060	mg/L	106	70.0 - 130	126425460

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>	<u>File</u>
Phosphorus (as P), total	1123135	ND	0.010	0.030	mg/L	126425459

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Phosphorus (as P), total	0.305	0.300	mg/L	102	90.0 - 110	126425461
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425476
Phosphorus (as P), total	0.300	0.300	mg/L	100	90.0 - 110	126425489

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	1123135	0.297	0.319	0.300	80.0 - 120	99.0	106	mg/L	7.14	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	2305933	0.128	0.134	0.100	0.150	70.0 - 130	18.7 *	22.7 *	mg/L	19.4	20.0

Analytical Set

1123173

SM 2320 B-2011

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QUALITY CONTROL



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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1123173	ND	1.00	1.00	mg/L	126425785

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	27.3	25.0	mg/L	109	90.0 - 110	126425784
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425798
Total Alkalinity (as CaCO3)	24.9	25.0	mg/L	99.6	90.0 - 110	126425811

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2305590	106	107	mg/L	0.939	20.0
Total Alkalinity (as CaCO3)	2305698	136	136	mg/L	0	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.9	25.0	mg/L	108	90.0 - 110	126425783

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2305590	130	107	25.0	mg/L	92.0	70.0 - 130	126425788
Total Alkalinity (as CaCO3)	2305698	159	136	25.0	mg/L	92.0	70.0 - 130	126425801

Analytical Set 1123591

SM 5220 D-2011

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chemical Oxygen Demand	434	400	mg/L	108	90.0 - 110	126436305

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chemical Oxygen Demand	2305419	33.6	33.6	mg/L	0	20.0
Chemical Oxygen Demand	2305557	21.9	21.9	mg/L	0	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Chemical Oxygen Demand	1123591	216	200	mg/L	108	90.0 - 110	126436306

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Chemical Oxygen Demand	2305419	245	33.6	200	mg/L	106	80.0 - 120	126436309
Chemical Oxygen Demand	2305557	222	21.9	200	mg/L	100	80.0 - 120	126436312

Analytical Set 1123697

SM 2130 B-2011

AWRL/LOQ C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.350	0.300	NTU	117	70.0 - 130	126440048

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QUALITY CONTROL



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Turbidity	1123697	ND	0.300	0.300	NTU	126440046

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Turbidity	2305623	3.40	3.04	NTU	11.2	20.0
Turbidity	2307012	0.580	0.520	NTU	10.9	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Turbidity	2305623	44.5	3.04	40.0	NTU	104	70.0 - 130	126440052
Turbidity	2307012	41.2	0.520	40.0	NTU	102	70.0 - 130	126440065

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Turbidity	1123697	10.1	10.0	NTU	101	90.0 - 110	126440047
Turbidity	1123697	101	100	NTU	101	90.0 - 110	126440049
Turbidity	1123697	10.0	10.0	NTU	100	90.0 - 110	126440060
Turbidity	1123697	10.4	10.0	NTU	104	90.0 - 110	126441062

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); ICV - Initial Calibration Verification; CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; MRL Check - Minimum Reporting Limit Check Std; LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); LDR - Linear Dynamic Range Standard; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



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CHAIN OF CUSTODY

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**SPAC-R
194**

Lab Number 1106094
PO Number 2705423 Mandatory
Phone 956/543-6688

Waste Water

RETENTION POND

Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start

Date: 6/6/24 Time: 13:30
Sampler Printed Name: CAROLYN WOOD
Sampler Affiliation: SPAC
Sampler Signature: [Signature]

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

On Site Testing

NELAC C120 C12 Res., Total(Onsite)Spec Mid SM 4500-C1 G-2011

C12 Res., Total(Onsite)Spec Mid

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RJL Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

C12k Field C12 Check for CNa

Field C12 Check for CNa

Collected By CW Date 6/6/24 Time 13:30 Analyzed By RJL Date 6/6/24 Time 13:40
Results NEGATIVE Units mg/L Temp. 37.8 C Duplicate NEGATIVE Units mg/L Temp. 37.1 C
RI 0.00 R2 0.00 QCR1 0.00 QCR2 0.00

NELAC Short Hold Cr6P Hex Cr, Field Preservation SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)



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Hex Cr, Field Preservation

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By RDL Date 6/6/24 Time 13:33

NELAC Short Hold DO Dissolved Oxygen Onsite SM 4500-O G-2016 (0.0104 days)

Dissolved Oxygen Onsite

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By RDL Date 6/6/24 Time 13:35

Results 7.07 Units mg/L ^{sw myll} Temp. 39.0 C Duplicate 7.15 Units mg/L Temp. 39.0 C

NELAC Short Hold pH pH (Onsite) SM 4500-H+ B-2011 (0.0104 days)

pH (Onsite)

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By RDL Date 6/6/24 Time 13:38

Results 8.60 Units mg/L ^{RDL SW} Temp. 39.0 C Duplicate 7.15 Units mg/L ^{RDL SW} Temp. 39.0 C

S2Cr Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By CWI Date 6/6/24 Time 13:30 Analyzed By RDL Date 6/6/24 Time 13:43

Results NEGATIVE Units --- Temp. 39.0 C Duplicate NEGATIVE Units --- Temp. 39.0 C
R1 --- R2 --- QCR1 --- QCR2 ---

NELAC Short Hold Temp Temperature (onsite) SM 2550 B - 2010 (0.0104 days)



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Temperature (onsite)

Collected By CW Date 6/6/19 Time 13:30 Analyzed By EDL Date 13/35 Time 13:40
Results 38.0 Units °C Duplicate 38.0 Units °C

2 Amber Glass Qt w/Teflon lined lid

NELAC	ID2S	Table D-1/ D-2 Semivolatiles Exp	EPA 625.1 (7.00 days)
NELAC	IPCB	Polychlorinated Biphenyls	EPA 608.3 (7.00 days)

2 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid

NELAC Short Hold	SAAE	Acrolein/Acrylonitrile Exp.	EPA 624.1 (3.00 days)
------------------	------	-----------------------------	-----------------------

2 H2SO4 to pH <2 GIQt w/Tef-lined lid

NYPE	Nonyl Phenol Expansion	ASTM D7065-11 (14.0 days)
------	------------------------	---------------------------

1 H2SO4 to pH <2 GIQt w/Tef-lined lid

NELAC	HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
-------	-----	----------------------	-----------------------------

1 Polyethylene 1/2 gal (White)

NELAC Short Hold	BOD	Biochemical Oxygen Demand (BOD5)	SM 5210 B-2016 CAS:1026-3 (2.04 days)
NELAC Short Hold	BODc	BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC	TSS	Total Suspended Solids	SM 2540 D-2015 (7.00 days)

0 Z -- No bottle required

	CKLM	Check Limits	
NELAC Short Hold	Cr+3	Trivalent Chromium	Calculation CAS:16065-83-1 (1.00 days)

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NELAC	*AgM	Silver, Total	EPA 200.8 5.4 CAS:7440-22-4 (180 days)
NELAC	*AlM	Aluminum, Total	EPA 200.8 5.4 CAS:7429-90-5 (180 days)



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NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*NiM	Nickel, Total	EPA 200.8 5.4 CAS:7440-02-0 (180 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
NELAC	*ZnM	Zinc, Total	EPA 200.8 5.4 CAS:7440-66-6 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

3 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

Short Hold ID2V Table D-1/D-2 Volatile Expansion EPA 624.1 (3.00 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC	COD	Chemical Oxygen Demand	SM 5220 D-2011 (28.0 days)
NELAC	NH ₄ N	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
	OrgN	Nitrogen, Total Organic (as N)	EPA 351.2 minus EPA 350.1 (28.0 days)
NELAC	TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
NELAC	TPWB	Phosphorus (as P), total	SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 H2SO4 to pH <2 Glass 250 mLw/Teflon lined lid

NELAC TOCL Total Organic Carbon SM 5310 C-2014 (28.0 days)



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2 NaOH to pH >12 Polyethylene 250 mL/amber

NELAC	CN ⁻	Cyanide, total	SM 4500-CN ⁻ E-2016 (14.0 days)
NELAC	CN ⁻ A	Cyanide - Available/Amenable	SM 4500-CN ⁻ G-2016 (14.0 days)
NELAC	CNCl	Cyanide After Chlorination	SM 4500-CN ⁻ G-2016 (14.0 days)

1 Polyethylene Quart

NELAC	!CIL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	!FIL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC Short Hold	IN3L	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC	IS4L	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC	AlkT	Total Alkalinity (as CaCO3)	SM 2320 B-2011 (14.0 days)
NELAC Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC	TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
6/06/24	13:30	AROLYN WOOD	SPL	RAE LEAN	SPL
6/06/24	17:30	RAE LEAN	SPL	FedEx	
6/07/24	10:00	FedEx		Whitwood	SPL
		Printed Name	Affiliation	Printed Name	Affiliation
		Signature		Signature	



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Sample Received on Ice? Yes No
Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAP, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). ANA-Lab personnel collect samples as specified by ANA-Lab SOP #000323.

Comments



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ORIGIN ID: HRLA (55) 556-5565
 PNA LAB / RGV
 2401 VILLAGE DR S12
 BROWNSVILLE, TN 37624
 UNITED STATES US

SHIP DATE: 06 JUN 24
 ACTWT: 58.75 LB
 CAD: 6994257/SSFE2521
 DIM: 24x14x13 IN
 BILL THIRD PARTY

FedEx Express Package US Airbill

8171 3103 3424

1 From
 Date: 6/24
 Sender's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

2 Your Internal Billing Reference

3 To
 Recipient's Name: [Redacted]
 Company: [Redacted]
 Address: [Redacted]
 City: [Redacted] State: TX ZIP: 75662

Hold Weekend
 Hold Saturday

TRK# 8171 3103 3424
 0200

FRI - 07 JUN 10:30A
 PRIORITY OVERNIGHT

XS GGGG

75662
 3HV

6/7 1030 AMV
 Date Time Tech
 Temp: 1.2 1.1 C
 Therm#: 7242 Corr Fact: -0.1 C

8171 3103 3424

fedex.com 1.800.GoFedEx 1.800.463.3339

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Project
1092339

Report Date: 02/28/2024
 Printed: 04/05/2024

RESULTS

Sample Results

Sample ID	Description	Collected by	Client	SPACEX	PO:	Received:	
2274163	Water/WQP/Annual					02/16/2024	
	Drinking Water	Collected by:	Client	SPACEX	PO:		
		Taken:	02/15/2024	15:00:00			
<hr/>							
EPA 200.7 4.4		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105831 02/22/2024 15:15:00 KBI	
	Parameter	Results	Units	RL	Flags	CAS	Bottle
z	Calcium	80.1	mg/L	0.500		7440-70-2	03
NELAC	Iron, Total	0.0798	mg/L	0.025		7439-89-6	03
NELAC	Sodium	174	mg/L	0.500		7440-23-5	03
<hr/>							
EPA 200.8 5.4		Prepared:	1105616	02/22/2024	10:00:00	Analyzed 1105841 02/22/2024 21:43:00 JC2	
	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Manganese, Total	0.00119	mg/L	0.001		7439-96-5	03
<hr/>							
EPA 300.0 2.1		Prepared:	1105412	02/20/2024	19:05:00	Analyzed 1105412 02/20/2024 19:05:00 NAZ	
	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chloride	213	mg/L	30.0			01
NELAC	Sulfate	342	mg/L	30.0			01
<hr/>							
SM 2320 B-2011		Prepared:	1106718	02/28/2024	09:42:00	Analyzed 1106718 02/28/2024 09:42:00 KNI	
	Parameter	Results	Units	RL	Flags	CAS	Bottle
z	Total Alkalinity (as CaCO3)	124	mg/L	1.00			01
<hr/>							
SM 2340 C-2011		Prepared:	1105896	02/22/2024	14:11:00	Analyzed 1105896 02/22/2024 14:11:00 SLF	
	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Total Hardness (as CaCO3)	310	mg/L	20			02
<hr/>							
SM 2510 B-2011		Prepared:	1105536	02/21/2024	13:30:00	Analyzed 1105536 02/21/2024 13:30:00 ALH	
	Parameter	Results	Units	RL	Flags	CAS	Bottle



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Report Date: 02/28/2024
 Printed: 04/05/2024

2274163 Water/WQP/Annual

Received: 02/16/2024

Drinking Water
 Collected by: Client
 Taken: 02/15/2024
 SPACE X
 PO: 15:00:00

SM 2510 B-2011 Prepared: 1105536 02/21/2024 13:30:00 Analyzed 1105536 02/21/2024 13:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Lab Spec. Conductance at 25 C	1430	umhos/cm				01

SM 2540 C-2015 Prepared: 1105436 02/20/2024 12:00:00 Analyzed 1105436 02/20/2024 12:00:00 JMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	700	mg/L	50.0			01

SM 4500-H+ B-2011 Prepared: 1105537 02/21/2024 15:30:00 Analyzed 1105537 02/21/2024 15:30:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Laboratory pH	8.2@20C	SU	2.00			01

Sample Preparation

2274163 Water/WQP/Annual

Received: 02/16/2024

02/15/2024

Prepared: 02/20/2024 09:39:30 Calculated 02/20/2024 09:39:30 CAL

z Environmental Fee (per Project) Verified

EPA 200.2.2.8 Prepared: 1105616 02/22/2024 10:00:00 Analyzed 1105616 02/22/2024 10:00:00 HLT

z Liquid Metals Digestion	50/50	ml				02
---------------------------	-------	----	--	--	--	----

SM 2540 C-2015 Prepared: 1105103 02/20/2024 12:00:00 Analyzed 1105103 02/20/2024 12:00:00 JMB

NELAC Total Dissolved Solids Started Started



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Report Date: 02/28/2024
Printed: 04/05/2024

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation

z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

Item 1. Facility/Site Information (Instructions, Page 39)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

Starbase Launch Pad Site serves as site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicle. Applicable SIC codes include 3761 GUIDED MISSILES AND SPACE VEHICLES.

- b. Describe all wastewater-generating processes at the facility.

Discharge water will consist of minor amounts of deluge water not captured by the containment area during vehicle launch activities, deluge water captured by the containment area in retention pond and stormwater.

¹

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Source water (potable, raw, and Type 1 reclaimed water)		Heat
		Combustion products of liquid oxygen and liquid methane (CO2 and water)

Attachment: N/A

d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: H Facility Map

e. Is this a new permit application for an existing facility?

- Yes No

If **yes**, provide background discussion: Obtain additional permit coverage for deluge discharge.

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

- Yes No

List source(s) used to determine 100-year frequency flood plain: FEMA

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Elevation 10

Attachment: I 100-yr Flood Map

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?
 Yes No N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?
 Yes No

If **yes**, provide the permit number: [Click to enter text.](#)

If **no**, provide an approximate date of application submittal to the USACE: [Click to enter text.](#)

Item 2. Treatment System (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Deluge water would be reused in the deluge system. Sedimentation controls would be utilized to be used/proposed to prepare industrial wastewater for re-use.

b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: [J Water Balance](#)

Item 3. Impoundments (Instructions, Page 40)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

Yes No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a - 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	C	C		
Associated Outfall Number	001	002		
Liner Type (C) (I) (S) or (A)	N	N		
Alt. Liner Attachment Reference	N	N		
Leak Detection System, Y/N	N	N		
Groundwater Monitoring Wells, Y/N	N	N		
Groundwater Monitoring Data Attachment	N	N		
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	N	N		
Length (ft)	180 ft	180 ft		
Width (ft)	45 ft	45 ft		
Max Depth From Water Surface (ft), Not Including Freeboard	4.5 ft	4.5 ft		
Freeboard (ft)	2 ft	2 ft		
Surface Area (acres)	7,500 sq ft	7,500 sq ft		
Storage Capacity (gallons)	273,000 gal	273,000 gal		

Parameter	Pond #	Pond #	Pond #	Pond #
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction	2023	2024		

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

1. Liner data

Yes No Not yet designed

2. Leak detection system or groundwater monitoring data

Yes No Not yet designed

3. Groundwater impacts

Yes No Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: N/A

d. Attach copies of State Water Well Reports (e.g., driller’s logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A

e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. E1 for evaporation pond 1, I2 for irrigation area No. 2, etc.).

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	25.996058	-97.155238
002	25.9961862	-97.1582205

Outfall Location Description

Outfall No.	Location Description
001	From Launch Tower 1 (east) to mudflats located immediately outside of the containment area and approximately 290 feet southwest of the launch pad, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	From Launch Tower 2 (west) to tidal wetlands located immediately outside of the containment area and approximately 100 feet southwest of Launch Tower 2, at the southern edge of the launch pad, approximately 25.9961862, -97.1582205.

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
001	From Launch Tower 1 (east) to mudflats located immediately outside of the containment area and approximately 290 feet southwest of the Launch Tower 1, at the bottom southern edge of the containment wall and retention pond located at approximately 25.995617, -97.154928.
002	From Launch Tower 2 (west) to tidal wetlands located immediately outside of the containment area and approximately 100 feet southwest of Launch Tower 2, at the southern edge of the launch pad, approximately 25.9961862, -97.1582205.

Outfall Flow Information – Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	Variable	Variable	Variable	Variable	Variable
002	Variable	Variable	Variable	Variable	Variable

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N/A	Y	N/A
002	N/A	Y	N/A

Outfall Discharge - Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	Y	N	N	Variable	Variable	Variable
002	Y	N	N	Variable	Variable	Variable

Outfall Wastestream Contributions

Outfall No. 001

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable
Deluge water	Variable	Variable
Water from routine external washing without chemicals/detergents	Variable	Variable
Water releases from maintenance event	Variable	Variable

Outfall No. 002

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Variable	Variable
Deluge water	Variable	Variable
Water from routine external washing without chemicals/detergents	Variable	Variable

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Water releases from maintenance event	Variable	Variable

Outfall No. [Click to enter text.](#)

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: [Click to enter text.](#)

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

- a. Indicate if the facility currently or proposes to:
- Yes No Use cooling towers that discharge blowdown or other wastestreams
 - Yes No Use boilers that discharge blowdown or other wastestreams
 - Yes No Discharge once-through cooling water

NOTE: If the facility uses or plans to use cooling towers or once-through cooling water, Item 12 **is required.**

- b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.
- Manufacturers Product Identification Number
 - Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
 - Chemical composition including CASRN for each ingredient
 - Classify product as non-persistent, persistent, or bioaccumulative
 - Product or active ingredient half-life

- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: N/A

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

- Yes No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Automotive maintenance

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - Facility is a POTW. Complete Worksheet 5.0.
 - Domestic sewage is not generated on-site.
 - Other (e.g., portable toilets), specify and Complete Item 7.b: Click to enter text.

- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Starbase WWTP	WQ0016342001

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
 Yes No
- b. Has the permittee completed or planned for any improvements or construction projects?
 Yes No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: SpaceX is working closely with the TCEQ and the USEPA to obtain additional expedited permit coverage in order to comply with the terms of an Administrative Order.

Item 9. Toxicity Testing (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

- Yes No

If **yes**, identify the tests and describe their purposes: [Click to enter text.](#)

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** [Click to enter text.](#)

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?
 Yes No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:
- List of wastes received (including volumes, characterization, and capability with on-site wastes).
 - Identify the sources of wastes received (including the legal name and addresses of the generators).

- Description of the relationship of waste source(s) with the facility's activities.

Attachment: [Click to enter text.](#)

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

Yes No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: [Click to enter text.](#)

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

Yes No

If **yes**, **Worksheet 6.0** of this application **is required**.

Item 11. Radioactive Materials (Instructions, Page 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

Yes No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

a. Does the facility use or propose to use water for cooling purposes?

Yes No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

Yes No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	0310001	0310153		
Owner	Public Utilities Board of the City of Brownsville, Texas	Public Utilities Board of the City of Brownsville, Texas		
Operator	Brownsville Public Utility Board	Brownsville PUB Water Hauler		

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

Yes No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. 0310001

3. Cooling water is/will be obtained from a reclaimed water source?

Yes No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: 2E-0000327

4. Cooling water is/will be obtained from an Independent Supplier

Yes No

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed: [Click to enter text.](#)

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

Yes No

2. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

Yes No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

Yes No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: Water is provided does not meet the definition of "Waters of the United States" per 40 CFR 122.2 and 40 CFR 120.2.

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

Yes No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

Yes No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

Yes No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I - New facility subject to 40 CFR Part 125, Subpart I

Yes No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

Track I - AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

- Track I - AIF greater than 10 MGD
 - Attach information required by *40 CFR § 125.86(b)*.
- Track II
 - Attach information required by *40 CFR § 125.86(c)*.

Attachment: [Click to enter text.](#)

2. Phase II - Existing facility subject to 40 CFR Part 125, Subpart J

- Yes No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

3. Phase III - New facility subject to 40 CFR Part 125, Subpart N

- Yes No

If **yes**, check the box next to the compliance track selection and provide the requested information.

- Track I - Fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.
- Track I - Not a fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).
- Track II - Fixed facility
 - Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: [Click to enter text.](#)

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

- Yes No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Click to enter text.

b. Is the facility requesting any **minor amendments** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

Yes No

If **yes**, list and describe each change individually.

Click to enter text.

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or

- performing work for another company with a unit located in the same site; or
- performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Katy Groom

Title: Manager of Environmental Regulatory Affairs

Signature: *Katy Groom*

Date: _6/29/24

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

Yes No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information below.

40 CFR Effluent Guideline

Industry	40 CFR Part

Item 2. Production/Process Data (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by 40 CFR Part 414, Appendices A and B.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
N/A			

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

Click to enter text.

Item 3. Process/Non-Process Wastewater Flows (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Wastewater flows generated by the facility include stormwater and deluge water that flows from storage tanks on site through the deluge systems when activated for routine maintenance, fire and dust suppression during launch and test operations. Deluge system discharges would be authorized for discharge under this permit via discharge during the operation and from the retention ponds via discharge valve.

Item 4. New Source Determination (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater Generating Processes Subject to Effluent Guidelines

Process	EPA Guideline Part	EPA Guideline Subpart	Date Process/ Construction Commenced
N/A			

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

Worksheet 2.0 is **required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

Item 1. General Testing Requirements (Instructions, Page 55)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm.
Attachment: [Click to enter text.](#)

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [K SPL Laboratories Data](#)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	8.49	3.56		
CBOD (5-day)	2.08	<2.00		
Chemical oxygen demand	<20.0	<20.0		
Total organic carbon	3.53	3.61		
Dissolved oxygen	NA	7.1		
Ammonia nitrogen	0.121	0.211		
Total suspended solids	7.50	7.10		
Nitrate nitrogen	1.20	1.20		
Total organic nitrogen	<0.050	0.161		
Total phosphorus	0.0241	0.017		
Oil and grease	3.60	<4.60		
Total residual chlorine	0.20	Negative		

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total dissolved solids	950	800		
Sulfate	282	281		
Chloride	182	197		
Fluoride	0.970	1.24		
Total alkalinity (mg/L as CaCO3)	136	106		
Temperature (°F)	28.1	38		
pH (standard units)	6.97	8.6		

Table 2 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	70.2	61.5			2.5
Antimony, total	1.89	1.12			5
Arsenic, total	1.88	0.0169			0.5
Barium, total	94.3	85			3
Beryllium, total	0	0			0.5
Cadmium, total	0.107	0			1
Chromium, total	1.55	0.282			3
Chromium, hexavalent	<3.00	25.9			3
Chromium, trivalent	0	0			N/A
Copper, total	9.49	0.0747			2
Cyanide, available	0	1.02			2/10
Lead, total	0	0			0.5
Mercury, total	0.113	0.139			0.005/0.0005
Nickel, total	6.26	0.0224			2
Selenium, total	2.86	0			5
Silver, total	0	0			0.5
Thallium, total	0	0.616			0.5
Zinc, total	1420	4.3			5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	<1.00	<1.00			50
Anthracene	<0.988	<1.06			10
Benzene	<1.00	<1.00			10
Benzidine	<1.48	<1.60			50
Benzo(a)anthracene	<0.988	<1.06			5
Benzo(a)pyrene	<0.988	<1.06			5
Bis(2-chloroethyl)ether	<0.988	<1.06			10
Bis(2-ethylhexyl)phthalate	<7.41	<7.99			10
Bromodichloromethane [Dichlorobromomethane]	<1.00	<1.00			10
Bromoform	<1.00	<1.00			10
Carbon tetrachloride	<1.00	<1.00			2
Chlorobenzene	<1.00	<1.00			10
Chlorodibromomethane [Dibromochloromethane]	<1.00	<1.00			10
Chloroform	<1.00	<1.00			10
Chrysene	<0.988	<1.06			5
m-Cresol [3-Methylphenol]	<7.91	<8.52			10
o-Cresol [2-Methylphenol]	<9.88	<10.0			10
p-Cresol [4-Methylphenol]	<7.91	<8.52			10
1,2-Dibromoethane	<1.00	<1.00			10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<1.00	<1.00			10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<1.00	<1.00			10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<1.00	<1.00			10
3,3'-Dichlorobenzidine	<1.97	<2.13			5
1,2-Dichloroethane	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.00	<1.00			10
Dichloromethane [Methylene chloride]	<1.02	<1.02			20
1,2-Dichloropropane	<1.00	<1.00			10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.00	<1.00			10
2,4-Dimethylphenol	<0.988	<1.06			10
Di-n-Butyl phthalate	<7.41	<7.99			10
Ethylbenzene	<1.00	<1.00			10
Fluoride	970	1240			500
Hexachlorobenzene	<0.988	<1.06			5
Hexachlorobutadiene	<1.02	<1.10			10
Hexachlorocyclopentadiene	<0.988	<1.06			10
Hexachloroethane	<1.98	<2.13			20
Methyl ethyl ketone	<1.00	<1.00			50
Nitrobenzene	<0.988	<1.06			10
N-Nitrosodiethylamine	<0.988	<1.06			20
N-Nitroso-di-n-butylamine	<0.988	<1.06			20
Nonylphenol	<33.6	<34.8			333
Pentachlorobenzene	<0.988	<1.06			20
Pentachlorophenol	<4.94	<5.00			5
Phenanthrene	<0.988	<1.06			10
Polychlorinated biphenyls (PCBs) (**)	<0.334	<0.197			0.2
Pyridine	<1.33	<1.44			20
1,2,4,5-Tetrachlorobenzene	<1.02	<1.10			20
1,1,2,2-Tetrachloroethane	<1.00	<1.00			10
Tetrachloroethene [Tetrachloroethylene]	<1.00	<1.00			10
Toluene	<1.00	<1.00			10
1,1,1-Trichloroethane	<1.00	<1.00			10
1,1,2-Trichloroethane	<1.00	<1.00			10
Trichloroethene [Trichloroethylene]	<1.00	<1.00			10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
2,4,5-Trichlorophenol	<4.94	<5.32			50
TTHM (Total trihalomethanes)	0	0			10
Vinyl chloride	<1.00	<1.00			10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a “<”.

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

- Yes No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- Manufacturers and formulators of tributyltin or related compounds.
- Painting of ships, boats and marine structures.
- Ship and boat building and repairing.
- Ship and boat cleaning, salvage, wrecking and scaling.
- Operation and maintenance of marine cargo handling facilities and marinas.
- Facilities engaged in wood preserving.
- Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

- Yes No

Domestic wastewater is/will be discharged.

- Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

Yes No

Domestic wastewater is/will be discharged.

Yes No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 is required for all external outfalls which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

N/A

Table 5 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>					400
Color (PCU)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Sulfite (as SO3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Surfactants	<input type="checkbox"/>	<input checked="" type="checkbox"/>					—
Boron, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Cobalt, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.702	0.199			7
Magnesium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.059	0.0163			0.5
Molybdenum, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					5
Titanium, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>					30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: N/A

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

Attachment: N/A

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- hexachlorophene (HCP) CASRN 70-30-4
- None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- Yes No

Description: Click to enter text.

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/A

Samples are (check one): Composite Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 is required for all external outfalls as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

Yes No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

Yes No

If yes to either Items a or b, complete Table 13 as instructed.

Table 13 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

This worksheet **is required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

Item 1. Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

- | | |
|--|---|
| <input type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

Item 2. Land Application Area (Instructions, Page 69)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
N/A			

Item 3. Annual Cropping Plan (Instructions, Page 69)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

Attachment:

Item 4. Well and Map Information (Instructions, Page 70)

a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- The exact boundaries of the land application area
- On-site buildings
- Waste-disposal or treatment facilities
- Effluent storage and tailwater control facilities
- Buffer zones
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: N/A

b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
N/A				

Attachment: Click to enter text.

c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

- Yes No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: Click to enter text.

d. Attach a short groundwater technical report using *30 TAC § 309.20(a)(4)* as guidance.

Attachment:

Item 7. Pollutant Analysis (Instructions, Page 72)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 5/29/2024-6/6/2024
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Tables 15 and 16.

Table 15 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)				
CBOD (5-day)				
Chemical oxygen demand				
Total organic carbon				
Dissolved oxygen				
Ammonia nitrogen				
Total suspended solids				
Nitrate nitrogen				
Total organic nitrogen				
Total phosphorus				
Oil and grease				
Total residual chlorine				
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO ₃)				
Temperature (°F)				
pH (standard units)				

Table 16 for Outfall No.: 001

Samples are (check one): Composite Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5
Barium, total					3

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Beryllium, total					0.5
Cadmium, total					1
Chromium, total					3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total					2
Cyanide, available					2/10
Lead, total					0.5
Mercury, total					0.005/0.0005
Nickel, total					2
Selenium, total					5
Silver, total					0.5
Thallium, total					0.5
Zinc, total					5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

This worksheet **is required** for all applications for a permit to disposal of wastewater by surface land application or evaporation.

Item 1. Edwards Aquifer (Instructions, Page 73)

a. Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

Yes No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b and 1.c.

b. Check the box next to the subchapter applicable to the facility.

30 TAC Chapter 213, Subchapter A

30 TAC Chapter 213, Subchapter B

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) **or** 2) a report that contains the following:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

Item 2. Surface Spray/Irrigation (Instructions, Page 73)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): N/A

Design application rate (acre-ft/acre/yr): N/A

Design application frequency (hours/day): N/A

Design application frequency (days/week): N/A

Design total nitrogen loading rate (lbs nitrogen/acre/year): N/A

Average slope of the application area (percent): N/A

Maximum slope of the application area (percent): N/A

Irrigation efficiency (percent): N/A

Effluent conductivity (mmhos/cm): N/A

Soil conductivity (mmhos/cm): N/A

Curve number: N/A

Describe the application method and equipment: N/A

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** N/A

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: N/A gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** N/A

Item 4. Evapotranspiration Beds (Instructions, Page 74)

- a. Provide the following information on the evapotranspiration beds:
- Number of beds: N/A
 - Area of bed(s) (acres): N/A
 - Depth of bed(s) (feet): N/A
 - Void ratio of soil in the beds: N/A
 - Storage volume within the beds (include units): N/A
 - Description of any lining to protect groundwater: N/A
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** N/A
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** N/A

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
- Area used for application (acres): N/A
 - Slopes for application area (percent): N/A
 - Design application rate (gpm/foot of slope width): N/A
 - Slope length (feet): N/A
 - Design BOD5 loading rate (lbs BOD5/acre/day): N/A
 - Design application frequency (hours/day): N/A
 - Design application frequency (days/week): N/A
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.2: SUBSURFACE IRRIGATION (NON-DRIP)

This worksheet **is required** for all applications for a permit to disposal of wastewater by subsurface land application.

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 75)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?
- Yes No
- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?
- Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Subsurface Application (Instructions, Page 75)

- a. Check the box next to the type of subsurface land disposal system requested:
- Conventional drainfield, beds, or trenches
- Low pressure dosing
- Other: [Click to enter text.](#)
- b. Provide the following information on the irrigation operations:
- Application area (acres): [Click to enter text.](#)
- Area of drainfield (square feet): [Click to enter text.](#)
- Application rate (gal/square ft/day): [Click to enter text.](#)
- Depth to groundwater (feet): [Click to enter text.](#)
- Area of trench (square feet): [Click to enter text.](#)
- Dosing duration per area (hours): [Click to enter text.](#)
- Number of beds: [Click to enter text.](#)
- Dosing amount per area (inches/day): [Click to enter text.](#)
- Soil infiltration rate (inches/hour): [Click to enter text.](#)
- Storage volume (gallons): [Click to enter text.](#)
- Area of bed(s) (square feet): [Click to enter text.](#)
- Soil classification: [Click to enter text.](#)
- c. Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

This worksheet **is required** for all applications for a permit to dispose of wastewater using a subsurface area drip dispersal system (SADDS).

- Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 76)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?
 Yes No
- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?
 Yes No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Administrative Information (Instructions, Page 76)

- a. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility: N/A
- b. The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.
 Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located: Click to enter text.

- c. Provide the legal name of the owner of the SADDS: Click to enter text.
- d. The owner of the SADDS is the same as the owner of the WWTF or the site where the WWTF is/will be located.
 Yes No

If **no**, identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c: Click to enter text.

- e. Provide the legal name of the owner of the land where the SADDS is located: Click to enter text.

f. The owner of the land where the SADDs is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDs.

Yes No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e: [Click to enter text.](#)

Item 3. SADDs (Instructions, Page 77)

a. Check the box next to the type SADDs requested by this application:

Subsurface drip/trickle irrigation

Surface drip irrigation

Other: [Click to enter text.](#)

b. Attach a description of the SADDs proposed/used by the facility (see instructions for guidance). **Attachment:** [Click to enter text.](#)

c. Provide the following information on the SADDs:

Application area (acres): [Click to enter text.](#)

Soil infiltration rate (inches/hour): [Click to enter text.](#)

Average slope of the application area: [Click to enter text.](#)

Maximum slope of the application area: [Click to enter text.](#)

Storage volume (gallons): [Click to enter text.](#)

Major soil series: [Click to enter text.](#)

Depth to groundwater (feet): [Click to enter text.](#)

Effluent conductivity (mmhos/cm): [Click to enter text.](#)

d. The facility is/will be located west of the boundary shown in *30 TAC § 222.83* **and** using a vegetative cover of non-native grasses over seeded with cool-season grasses.

Yes No

If **yes**, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft²/day.

e. The facility is/will be located east of the boundary shown in *30 TAC § 222.83* **or** is the facility proposing any crop other than non-native grasses.

Yes No

If **yes**, the facility must use the formula in *30 TAC § 222.83* to calculate the maximum hydraulic application rate.

f. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

Yes No

If **yes**, provide the following information on the hydraulic application rates:

- Hydraulic application rate (gal/square foot/day): [Click to enter text.](#)
- Nitrogen application rate (gal/square foot/day): [Click to enter text.](#)

g. Provide the following dosing information:

Number of doses per day: [Click to enter text.](#)

Dosing duration per area (hours): [Click to enter text.](#)

Rest period between doses (hours): [Click to enter text.](#)

Dosing amount per area (inches/day): [Click to enter text.](#)

Number of zones: [Click to enter text.](#)

h. The system is/will be a surface drip irrigation system using existing native vegetation as a crop?

Yes No

If **yes**, attach the following information:

- A vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species.

Attachment: [Click to enter text.](#)

- Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

Attachment: [Click to enter text.](#)

Item 4. Required Plans (Instructions, Page 78)

a. Attach a Soil Evaluation with all information required in *30 TAC § 222.73*.

Attachment: [Click to enter text.](#)

b. Attach a Site Preparation Plan with all information required in *30 TAC § 222.75*.

Attachment: [Click to enter text.](#)

c. Attach a Recharge Feature Plan with all information required in *30 TAC § 222.79*.

Attachment: [Click to enter text.](#)

d. Provide soil sampling and testing with all information required in *30 TAC § 222.157*.

Attachment: [Click to enter text.](#)

Item 5. Flood and Run-On Protection (Instructions, Page 79)

a. Is the existing/proposed SADDs located within the 100-year frequency flood level?

Yes No

Source: [Click to enter text.](#)

If **yes**, describe how the site will be protected from inundation: [Click to enter text.](#)

b. Is the existing/proposed SADDs within a designated floodway?

- Yes No

If **yes**, attach either the FEMA flood map or alternate information used to make this determination. **Attachment:** [Click to enter text.](#)

Item 6. Surface Waters in The State (Instructions, Page 79)

a. Attach a buffer map which shows the appropriate buffers on surface waters in the state, water wells, and springs/seeps. **Attachment:** [Click to enter text.](#)

b. The facility has or plans to request a buffer variance from water wells or waters in the state?

- Yes No

If **yes**, attach the additional information required in *30 TAC § 222.81(c)*. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is **required** for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

Yes No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: [Click to enter text.](#)
2. The distance and direction from the outfall to the drinking water supply intake: [Click to enter text.](#)

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

Check this box to confirm the above requested information is provided.

Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: [Click to enter text.](#)

- c. Are there sea grasses within the vicinity of the point of discharge?

Yes No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: [Click to enter text.](#)

Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

Yes No

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

- a. Name of the immediate receiving waters: Mudflats
- b. Check the appropriate description of the immediate receiving waters:
- Lake or Pond
 - Surface area (acres): Click to enter text.
 - Average depth of the entire water body (feet): Click to enter text.
 - Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.
 - Man-Made Channel or Ditch
 - Stream or Creek
 - Freshwater Swamp or Marsh
 - Tidal Stream, Bayou, or Marsh
 - Open Bay
 - Other, specify:

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c - 4.g below:

- c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- Intermittent (dry for at least one week during most years)
- Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- USGS flow records
- personal observation
- historical observation by adjacent landowner(s)
- other, specify: Click to enter text.

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Rio Grande River
- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).
- Yes
 - No

If **yes**, describe how: [Click to enter text.](#)

f. General observations of the water body during normal dry weather conditions: [dry mudflats](#)

Date and time of observation: [year round](#)

g. The water body was influenced by stormwater runoff during observations.

Yes No

If **yes**, describe how: [Click to enter text.](#)

Item 5. General Characteristics of Water Body (Instructions, Page 81)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> oil field activities | <input checked="" type="checkbox"/> urban runoff |
| <input checked="" type="checkbox"/> agricultural runoff | <input type="checkbox"/> septic tanks |
| <input checked="" type="checkbox"/> upstream discharges | <input type="checkbox"/> other, specify: Click to enter text. |

b. Uses of water body observed or evidence of such uses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> livestock watering | <input type="checkbox"/> industrial water supply |
| <input checked="" type="checkbox"/> non-contact recreation | <input type="checkbox"/> irrigation withdrawal |
| <input type="checkbox"/> domestic water supply | <input type="checkbox"/> navigation |
| <input type="checkbox"/> contact recreation | <input type="checkbox"/> picnic/park activities |
| <input type="checkbox"/> fishing | <input type="checkbox"/> other, specify: Click to enter text. |

c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

- Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional
- Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored
- Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid
- Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS

The following information **is required** for new applications, EPA-designated Major facilities, and major amendment applications requesting to add an outfall if the receiving waters are perennial or intermittent with perennial pools (including impoundments) for a TDPEs permit.

Complete the transects downstream of the existing or proposed discharges.

Item 1. Data Collection (Instructions, Page 82)

- a. Date of study: N/A Time of study: Click to enter text.
 Waterbody name: Click to enter text.
 General location: Click to enter text.
- b. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):
 perennial intermittent with perennial pools impoundment
- c. No. of defined stream bends:
 Well: Click to enter text. Moderately: Click to enter text. Poorly: Click to enter text.
- d. No. of riffles: Click to enter text.
- e. Evidence of flow fluctuations (check one):
 Minor Moderate Severe
- f. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: Click to enter text.
- g. Complete the following table with information regarding the transect measurements.

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**									
N/A												

* riffle, run, glide, or pool
 ** channel bed to water surface

Item 2. Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): N/A

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): N/A

Length of stream evaluated (ft): N/A

Number of lateral transects made: N/A

Average stream width (ft): N/A

Average stream depth (ft): N/A

Average stream velocity (ft/sec): N/A

Instantaneous stream flow (ft³/sec): N/A

Indicate flow measurement method (VERY IMPORTANT - type of meter, floating chip timed over a fixed distance, etc.): N/A

Flow fluctuations (i.e., minor, moderate, or severe): N/A

Size of pools (i.e., large, small, moderate, or none): N/A

Maximum pool depth (ft): N/A

Total number of stream bends: N/A

 Number well defined: N/A

 Number moderately defined: N/A

 Number poorly defined: N/A

Total number of riffles: N/A

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

a. Is this a new permit application or an amendment permit application?

Yes No

b. Does or will the facility discharge in the Lake Houston watershed?

Yes No

If **yes** to either Item 1.a or 1.b, attach a solids management plan. **Attachment:** N/A

Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

- Permitted landfill
- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Registered land application site, attach Form TCEQ-00565
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Transported to another WWTP
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

Attachment: [Click to enter text.](#)

b. Provide the following information for each disposal site:

Disposal site name: Starbase WWTP/Space Exploration Technologies (sludge hauler)

TCEQ Permit/Registration Number: 2#0000327/Sludge Id No. 26143

County where disposal site is located: Hidalgo

c. Method of sewage sludge transportation:

truck train pipe other: [Click to enter text.](#)

TCEQ Hauler Registration Number: 26143

d. Sludge is transported as a:

liquid semi-liquid semi-solid solid

e. Purpose of land application: reclamation soil conditioning N/A

f. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

Attachment: [Click to enter text.](#)

Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- Marketing and distribution by the permittee, attach Form TCEQ-00551
- Processed by the permittee, attach Form TCEQ-00744
- Surface disposal site (sludge monofill), attach Form TCEQ-00744
- Beneficial land application, attach Form TCEQ-10451
- Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

Attachment: N/A

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit.** New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following information is **required** for all applications for publicly-owned treatment works (POTWs).

For an explanation of the terms used in this worksheet, refer to the General Definitions on pages 4-12 and the Definitions Relating to Pretreatment on pages 13-14 of the Instructions.

Item 1. All POTWs (Instructions, Page 86)

- a. Complete the following table with the number of each type of industrial users (IUs) that discharge to the POTW and the daily average flows from each.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)
CIU	N/A	
SIU - Non-categorical		
Other IU		

- b. In the past three years, has the POTW experienced treatment plant interference?

Yes No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference: [Click to enter text.](#)

- c. In the past three years, has the POTW experienced pass-through?

Yes No

If **yes**, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass-through event. Include the names of the IU(s) that may have caused the pass-through: [Click to enter text.](#)

- d. Does the POTW have, or is it required to develop, an approved pretreatment program?

Yes No

If **yes**, answer all questions in Item 2 and skip Item 3.

If **no**, skip Item 2 and answer all questions in Item 3 for each SIU and CIU.

Item 2. POTWs With Approved Pretreatment Programs or Those Required To Develop A Pretreatment Program (Instructions, Page 86)

- a. Have there been any substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ) for approval according to *40 CFR § 403.18*?

Yes No

If **yes**, include an attachment which identifies all substantial modifications that have not been submitted to the TCEQ and the purpose of the modifications.

Attachment: [Click to enter text.](#)

- b. Have there been any non-substantial modifications to the POTW’s approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

Yes No

If **yes**, include an attachment which identifies all non-substantial modifications that have not been submitted to the TCEQ and the purpose of the modification.

Attachment: [Click to enter text.](#)

- c. List all parameters measured above the MAL in the POTW’s effluent monitoring during the last three years:

Effluent Parameters Measured Above the MAL

Pollutant	Concentration	MAL	Units	Date

Attachment: [Click to enter text.](#)

- d. Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass-through) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems: [Click to enter text.](#)

Item 3. Significant Industrial User and Categorical Industrial User Information (Instructions, Pages 88-87)

POTWs that **do not** have an approved pretreatment program **are required** to provide the following information for each SIU and CIU:

- a. Mr. or Ms.: [Click to enter text.](#) First/Last Name: [Click to enter text.](#)

Organization Name: [Click to enter text.](#) SIC Code: [Click to enter text.](#)

Phone number: [Click to enter text.](#) Email address: [Click to enter text.](#)

Physical Address: [Click to enter text.](#) City/State/ZIP Code: [Click to enter text.](#)

Attachment: [Click to enter text.](#)

- b. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (e.g., process and non-process wastewater): [Click to enter text.](#)

c. Provide a description of the principal products(s) or service(s) performed: [Click to enter text.](#)

d. Flow rate information

Flow Rate Information

Effluent Type	Discharge Day (gallons per day)	Discharge Frequency (Continuous, batch, or intermittent)
Process Wastewater		
Non-process Wastewater		

e. Pretreatment Standards

1. Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

Yes No

2. Is the SIU subject to categorical pretreatment standards?

Yes No

If **yes**, provide the category and subcategory or subcategories in the SIUs Subject To Categorical Pretreatment Standards table.

SIUs Subject to Categorical Pretreatment Standards

Category in 40 CFR	Subcategory in 40 CFR			

f. Has the SIU or CIU caused or contributed to any problem(s) (e.g., interferences, pass through, odors, corrosion, blockages) at the POTW in the past three years?

Yes No

If **yes**, provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

Yes No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
	<input type="checkbox"/> Current	<input type="checkbox"/> Proposed
	<input type="checkbox"/> Current	<input type="checkbox"/> Proposed
	<input type="checkbox"/>	<input type="checkbox"/>

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, **proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility’s boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

Check the box to confirm all above information was provided on the facility site map(s).

Attachment: [E Site Map](#)

Item 4. Facility/Site Information (Instructions, Page 90)

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)

- b. Provide the following local area rainfall information and the source of the information.
 Wettest month:
 Average rainfall for wettest month (total inches): [Click to enter text.](#)
 25-year, 24-hour rainfall (inches): [Click to enter text.](#)
 Source:
- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** [Click to enter text.](#)
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** [Click to enter text.](#)
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: [Click to enter text.](#)

Item 5. Pollutant Analysis (Instructions, Page 91)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: 001

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)		—	(min)	—		—
Total suspended solids						—
Chemical oxygen demand						—
Total organic carbon						—
Oil and grease						—
Arsenic, total						0.0005
Barium, total						0.003
Cadmium, total						0.001
Chromium, total						0.003
Chromium, trivalent						—
Chromium, hexavalent						0.003
Copper, total						0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total						0.0005
Mercury, total						0.000005
Nickel, total						0.002
Selenium, total						0.005
Silver, total						0.0005
Zinc, total						0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

Attachment: [Click to enter text.](#)

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: [Click to enter text.](#)

Duration of storm event (minutes): [Click to enter text.](#)

Total rainfall during storm event (inches): [Click to enter text.](#)

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours):

Maximum flow rate during rain event (gallons/minute): [Click to enter text.](#)

Total stormwater flow from rain event (gallons): [Click to enter text.](#)

Provide a description of the method of flow measurement or estimate:

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 8.0: AQUACULTURE

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges of aquaculture wastewater.

Item 1. Facility/Site Information (Instructions, Page 94)

- a. Complete the following table with information regarding production ponds, raceways, and fabricated tanks at the facility.

Production Pond Descriptions

Number of Ponds	Dimensions (include units)	Area of Each Pond (include units)	Number of Ponds x Area of Ponds (include Units)
N/A			

Total surface area of all ponds: [Click to enter text.](#)

Raceway Descriptions

Number of Raceways	Dimensions (include units)

Fabricated Tank Descriptions

Number of Tanks	Dimensions (include units)

b. Does the facility have a TPWD-approved emergency plan?

- Yes No

If **yes**, attach a copy of the approved plan.

Attachment: [Click to enter text.](#)

c. Does the facility have an aquatic plant transplant authorization?

- Yes No

If **yes**, attach a copy of the authorization letter.

Attachment: [Click to enter text.](#)

d. Provide the number of aquaculture facilities located within 25-miles of this facility: [Click to enter text.](#)

Item 2. Species Identification (Instructions, Page 95)

Complete the following table regarding each species raised, source, origin, and disease status of the stock. Identify and attach copies of any current relevant authorizations or permits that authorize the species.

Stock Species Information

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

Attachment: [Click to enter text.](#)

Item 3. Stock Management Plan (Instructions, Page 95)

Attach a detailed stock management plan: [Click to enter text.](#)

Item 4. Water Treatment and Discharge Description (Instructions, Page 96)

Attach a detailed description of the discharge practices and water treatment process(es): [Click to enter text.](#)

Item 5. Solid Waste Management (Instructions, Page 96)

Attach a description of the solid waste-disposal practices: [Click to enter text.](#)

Item 6. Site Assessment Report (Instructions, Page 96)

All new and expanding commercial shrimp facilities located/to be located within the coastal zone must attach a detailed site assessment report which identifies sensitive aquatic habitats within the coastal zone: [Click to enter text.](#)

WORKSHEET 9.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only

Reg. No. _____

Date Received _____

Date Authorized _____

Item 1. General Information (Instructions Page 99)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): [Click to enter text.](#)

Program ID: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

2. Agent/Consultant Contact Information

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

3. Owner/Operator Contact Information

Owner Operator

Owner/Operator Name: [Click to enter text.](#)

Contact Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

4. Facility Contact Information

Facility Name: [Click to enter text.](#)

Address: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Location description (if no address is available): [Click to enter text.](#)

Facility Contact Person: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

5. Latitude and Longitude, in degrees-minutes-seconds

Latitude: [Click to enter text.](#)

Longitude: [Click to enter text.](#)

Method of determination (GPS, TOPO, etc.): [Click to enter text.](#)

Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- Vertical Injection
- Subsurface Fluid Distribution System
- Infiltration Gallery
- Temporary Injection Points
- Other, Specify: [Click to enter text.](#)

Number of Injection Wells: [Click to enter text.](#)

7. Purpose

Detailed Description regarding purpose of Injection System:

[Click to enter text.](#)

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

License Number: [Click to enter text.](#)

Item 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Center	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Item 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: [Click to enter text.](#)

System(s) Construction: [Click to enter text.](#)

Item 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: [Click to enter text.](#)

2. Receiving Formation Name of Injection Zone: [Click to enter text.](#)

3. Well/Trench Total Depth: [Click to enter text.](#)

4. Surface Elevation: [Click to enter text.](#)

5. Depth to Ground Water: [Click to enter text.](#)

6. Injection Zone Depth: [Click to enter text.](#)

7. Injection Zone vertically isolated geologically? Yes No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: [Click to enter text.](#)

Thickness: [Click to enter text.](#)

8. Attach a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.

9. Attach the Horizontal and Vertical extent of contamination and injection plume as Attachment F.

10. Attach Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc., as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection. Attach as Attachment H.

12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: [Click to enter text.](#)

13. Maximum injection Rate/Volume/Pressure: [Click to enter text.](#)

14. Water wells within 1/4 mile radius (attach map as Attachment I): [Click to enter text.](#)

15. Injection wells within 1/4 mile radius (attach map as Attachment J): [Click to enter text.](#)

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): [Click to enter text.](#)

17. Sampling frequency: [Click to enter text.](#)

18. Known hazardous components in injection fluid: [Click to enter text.](#)

Item 5. Site History

1. Type of Facility: [Click to enter text.](#)
2. Contamination Dates: [Click to enter text.](#)
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations. Attach as Attachment L.
4. Previous Remediation. Attach results of any previous remediation as Attachment M.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Item 6. CLASS V INJECTION WELL DESIGNATIONS

- 5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Stormwater Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTPP disposal
- 5W20 Industrial Process Waste-disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X27 Other Wells
- 5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

This worksheet **is required** for all applications for individual permits for a municipal solid waste facility or mining facility located within a Water Quality Protection Area in the John Graves Scenic Riverway. **Note: Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.**

Item 1. Exclusions (Instructions, Page 100)

- a. Is this a municipal solid waste facility?
 Yes No
- b. Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?
 Yes No
- c. Is this a coal mine?
 Yes No
- d. Is this facility mining clay and/or shale for use in manufacturing structural clay products?
 Yes No

If **yes** to **any** above question, **stop here**. The facility is required to maintain documentation, as outlined in *30 TAC § 311.72(c)*, at the facility to demonstrate the exclusion(s).

Item 2. Location of the Quarry (Instructions, Page 101)

Check the box next to the distance between the quarry and the nearest navigable water body:

- < 200 feet 200 feet - 1,500 feet 1,500 feet - 1 mile > 1 mile

NOTE: The construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a Water Quality Protection Area in the John Graves Scenic Riverway.

Item 3. Additional Requirements (Instructions, Page 101)

Use the table in the Instructions to determine if additional application requirements apply to the facility based on distance between the quarry and the nearest waterway. Attach as appropriate or enter N/A.

- a. Attach a Restoration Plan: [Click to enter text.](#)
- b. Amount of Financial Assurance for Restoration: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)
- c. Attach a Technical Demonstration: [Click to enter text.](#)
- d. Attach a Reclamation Plan: [Click to enter text.](#)
- e. Amount of Financial Assurance for Reclamation: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.0: COOLING WATER SYSTEM INFORMATION

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12.

Item 1. Cooling Water System Data (Instructions, Page 104)

a. Complete the following table with information regarding the cooling water system.

Cooling Water System Data

Parameter	Volume (include units)
Total DIF	
Total AIF	
Intake Flow Use(s) (%)	
Contact cooling	
Non-contact cooling	
Process Wastewater	
Other	

b. Attach the following information:

1. A narrative description of the design and annual operation of the facility's cooling water system and its relationship to the CWIS(s).
2. A scaled map depicting the location of each CWIS, impoundment, intake pipe, and canals, pipes, or waterways used to convey cooling water to, or within, the cooling water system. Provide the latitude and longitude for each CWIS and any intake pipe(s) on the map. Indicate the position of the intake pipe within the water column.
3. A description of water reuse activities, if applicable, reductions in total water withdrawals, if applicable, and the proportion of the source waterbody withdrawn (on a monthly basis).
4. Design and engineering calculations prepared by a qualified professional and data to support the information provided in above item a.
5. Previous year (a minimum of 12 months) of AIF data.
6. A narrative description of existing or proposed impingement and entrainment technologies or operation measures and a summary of their performance, including, but not limited to, reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

Attachment: [Click to enter text.](#)

Item 2. Cooling Water Intake Structure(s) Data (Instructions, Page 105)

- a. Complete the following table with information regarding each cooling water intake structure (this includes primary and make-up CWIS(s)).

Cooling Water Intake Structure(s) Data

CWIS ID				
DIF (include units)				
AIF (include units)				
Intake Flow Use(s) (%)				
Contact cooling				
Non-contact cooling				
Process Wastewater				
Other				
Latitude (decimal degrees)				
Longitude (decimal degrees)				

- b. Attach the following information regarding the CWIS(s):
1. A narrative description of the configuration of each CWIS, annual and daily operation, including any seasonal changes, and where it is located in the water body and in the water column.
 2. Engineering calculations for each CWIS.

Attachment: [Click to enter text.](#)

Item 3. Source Water Physical Data (Instructions, Page 105)

- a. Complete the following table with information regarding the CWIS(s) source waterbody (this includes primary and make-up CWIS(s)).

Source Waterbody Data

CWIS ID				
Source Waterbody				
Mean Annual Flow				
Source				

- b. Attach the following information regarding the source waterbody.
1. A narrative description of the source water for each CWIS, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports this determination of the water body type where each cooling water intake structure is located.

2. A narrative description of the source waterbody's hydrological and geomorphological features.
3. Scaled drawings showing the physical configuration of all source water bodies used by the facility, including the source waterbody's hydrological and geomorphological features. **NOTE:** The source waterbody's hydrological and geomorphological features may be included on the map submitted for item 1.b.ii of this worksheet.
4. A description of the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies.

Attachment: [Click to enter text.](#)

Item 4. Operational Status (Instructions, Page 106)

a. Is this application for a power production or steam generation facility?

Yes No

If **no**, proceed to Item 4.b. If **yes**, provide the following information as an attachment:

1. Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation.
2. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment.
3. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months).
4. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type.

Attachment: [Click to enter text.](#)

b. Process Units

1. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)?

Yes No

If **no**, proceed to Item 4.c. If **yes**, continue.

2. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of *40 CFR § 125.94(c)*?

Yes No

If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information:

- Individual production processes and product lines
- The operating status, including age of each line and seasonal operation
- Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors

- Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines.

Attachment: [Click to enter text.](#)

c. Is this an application for a nuclear power production facility?

Yes No

If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility.

Attachment: [Click to enter text.](#)

d. Is this an application for a manufacturing facility?

Yes No

If **no**, proceed to Worksheet 11.1. If **yes**, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.1: IMPINGEMENT MORTALITY

This worksheet is **required** for all TPDES permit applications that meet the conditions outlined in **Technical Report 1.0, Item 12**. Complete one copy of this worksheet for each individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Impingement Compliance Technology Selection (Instructions, Page 107)

Check the box next to the method of compliance for the Impingement Mortality Standard selected by the facility.

- Closed-cycle recirculating system (CCRS) [40 CFR § 125.94(c)(1)]
- 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] - Proceed to Worksheet 11.2
- 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]
- Existing offshore velocity cap [40 CFR § 125.94(c)(4)] - Proceed to Worksheet 11.2
- Modified traveling screens [40 CFR § 125.94(c)(5)]
- System of technologies [40 CFR § 125.94(c)(6)]
- Impingement mortality performance standard [40 CFR § 125.94(c)(7)]
- De minimis rate of impingement [40 CFR § 125.94(c)(11)]
- Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

If 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] or existing offshore velocity cap [40 CFR § 125.94(c)(4)] was selected, proceed to Worksheet 11.2. Otherwise, continue to Item 2.

Item 2. Impingement Compliance Technology Information (Instructions, Page 107)

Complete the following sections based on the selection made for item 1 above.

a. CCRS [40 CFR § 125.94(c)(1)]

- Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.

1. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

- Yes No

If **no**, proceed to item a.2. If **yes**, provide the following information as an attachment and continue.

- CWIS ID
- 12 months of intake flow data for any CWIS used for make-up intake flows to replenish cooling water losses, excluding intakes for losses due to blowdown, drift, or evaporation.

- A narrative description of any physical or operational measures taken to minimize make-up withdraws.

Attachment: [Click to enter text.](#)

NOTE: Do not complete a separate Worksheet 11.1 for a make-up CWIS.

2. Does the facility use or propose to use cooling towers?

- Yes No

If **no**, proceed to Worksheet 11.2. If **yes**, provide the following information and proceed to Worksheet 11.2.

- Average number of cycles of concentration (COCs) prior to blowdown:

Average COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Attach COC monitoring data for each cooling tower from the previous year (a minimum of 12 months): [Click to enter text.](#)
- Maximum number of COCs each cooling tower can accomplish based on design of the system.

Calculated COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Describe conditions that may limit the number of COCs prior to blowdown, if any, including but not limited to permit conditions: [Click to enter text.](#)

b. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

Provide daily intake flow measurement monitoring data from the previous year (a minimum of 12 months) as an attachment and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

c. Modified traveling screens [40 CFR § 125.94(c)(5)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the modified traveling screens and associated equipment.
2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

d. System of technologies [40 CFR § 125.94(c)(6)] or impingement mortality performance standard [40 CFR § 125.94(c)(7)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the system of technologies used or proposed for use by the facility to

achieve compliance with the impingement mortality standard.

2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods.
3. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment: [Click to enter text.](#)

- e. De minimis rate of impingement [*40 CFR § 125.94(c)(11)*]

Provide the following information and proceed to Worksheet 11.2.

1. Attach monitoring data from the previous year (a minimum of 12 months) of intake flow measured at a frequency of 1/day on days of operation.

Attachment: [Click to enter text.](#)

2. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.6. to support this determination.

Attachment: [Click to enter text.](#)

- f. Low capacity utilization power-generation facilities [*40 CFR § 125.94(c)(12)*]

Attach monthly utilization data from the previous 2 years (a minimum of 24 months) for each operating unit and proceed to Worksheet 11.2.

Attachment: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.2: SOURCE WATER BIOLOGICAL DATA

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** source waterbody of a CWIS for which a facility has selected an Impingement Mortality Technology Option described at *40 CFR §§ 125.94(c)(1)-(7)*.

Name of source waterbody: [Click to enter text.](#)

Item 1. Species Management (Instructions, Page 109)

- a. The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.

Yes No

If yes, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph *40 CFR § 125.95(f)*.

Attachment: [Click to enter text.](#)

- b. Is the facility requesting a waiver from application requirements at *40 CFR § 122.21(r)(4)* in accordance with *40 CFR § 125.95* for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?

Yes No

If **yes**, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.

Attachment: [Click to enter text.](#)

- c. There are no federally listed threatened or endangered species or critical habitat designations within the source water body.

True False

Item 2. Source Water Biological Data (Instructions, Page 109)

New Facilities (Phase I, Track I and II)

- Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

- If the answer to **1.b.** above was **no**, provide responses to all items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **true**, do not complete any items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **false**, attach a response for any item in this section that is not contained within the most recent TPWD, or equivalent and proceed to Worksheet 11.3.

Attachment: [Click to enter text.](#)

- a. A list of the data requested at *40 CFR § 122.21(r)(4)(ii)* through *(vi)* that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at *40 CFR § 125.92(m)*, at the facility. The applicant need only identify those species not already identified as fragile at *40 CFR § 125.92(m)*.

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.3: ENTRAINMENT

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Applicability (Instructions, Page 111)

Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?

Yes No

- If **no** or the facility has selected **CCRS** [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here.
- If **yes** and the facility is **seeking a waiver** from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop.
- If **yes** and the facility is **not seeking a waiver** from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.

Item 2. Existing Entrainment Performance Studies (Instructions, Page 111)

Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.

Attachment: [Click to enter text.](#)

Item 3. Facility Entrainment Performance Studies (Instructions, Page 111)

- a. Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): [Click to enter text.](#)
- b. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): [Click to enter text.](#)
- c. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): [Click to enter text.](#)
- d. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): [Click to enter text.](#)
- e. Attach a peer review analysis, as described as 40 CFR § 122.21(r)(13): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 12.0: OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES

This worksheet **is required** for all TPDES permit applications that are subject to Effluent Limitation Guidelines in 40 CFR Part 435.

Item 1. Operational Information (Instructions, Page 112)

- a. Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?

Yes No

If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.

- b. Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.

Click to enter text.

Item 2. Production/Process Data (Instructions, Page 112)

- a. Provide the applicable 40 CFR Part 435 Subpart(s).

Click to enter text.

- b. Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

Click to enter text.

c. Provide information on all waste-streams generated and specify which waste-streams you are requesting to be authorized for discharge.

Wastestreams Generated

Wastestream	Requesting authorization to discharge? (Yes/No)	Volume (MGD)	% of Total Flow

d. Describe how the facility will manage wastestreams for which discharge authorization is not being sought.

Click to enter text.

Attachment: Click to enter text.

e. Provide information on miscellaneous discharges.

Click to enter text.

Attachment: Click to enter text.

Item 3. Pollutant Analysis (Instructions, Page 113)

Tables 1, 2, 6, and 7 located in Worksheet 2.0 are required. In addition, Table 19 below is required and must be completed for each outfall and submitted with this application. The remaining tables in Worksheet 2.0, are required as applicable.

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** [Click to enter text.](#)
- d. Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [Click to enter text.](#)

Table 19 for Outfall No.: [Click to enter text.](#) Samples are (check one): Composite Grab

Pollutant	Sample 1 (mg/L)*	Sample 2 (mg/L)*	Sample 3 (mg/L)*	Sample 4 (mg/L)*
Calcium				
Potassium				
Sodium				

*Indicate units if different from mg/L.

Attachment A**Table 1 – Conventional and Non-conventionals**

Outfall No.:1	<input type="checkbox"/> C <input checked="" type="checkbox"/> G	Effluent Concentration (mg/L)				
		8/6/23	8/25/23	Samp.	Samp.	Average
Flow (MGD)		Variable	Variable			
BOD (5-day)		4.39	4.82			
CBOD (5-day)		Non detect	Non detect			
Chemical Oxygen Demand		Non detect	Non detect			
Total Organic Carbon		Not sampled	Not sampled			
Dissolved Oxygen		Not sampled	Not sampled			
Ammonia Nitrogen		Not sampled	Not sampled			
Total Suspended Solids		34	15.5			
Nitrate Nitrogen		0.291	0.369			
Total Organic Nitrogen		1.42				
Total Phosphorus		0.0694	0.176			
Oil and Grease		Non detect	Non detect			
Total Residual Chlorine		0	Not sampled			
Total Dissolved Solids		530	660			
Sulfate		230	232			
Chloride		147	152			
Fluoride		Non detect	Non detect			
Total Alkalinity (mg/L as CaCO ₃)		90	115			
Temperature (°F)		Not sampled	Not sampled			
pH (Standard Units; min/max)		8.4	8.2			

Table 2 – Metals

Pollutant	Effluent Concentration (µg/L) ¹					MAL ² (µg/L)
	8/6/23	8/25/23	Samp.	Samp.	Average	
Aluminum, Total	833	951				2.5
Antimony, Total	Non detect	Non detect				5
Arsenic, Total	1.94	Non detect				0.5
Barium, Total	611	122				3
Beryllium, Total	Non detect	Non detect				0.5
Cadmium, Total	Non detect	3.21				1
Chromium, Total	6.75	6.97				3
Chromium, Hexavalent	Not sampled	Not sampled				3
Chromium, Trivalent	Not sampled	Not sampled				N/A
Copper, Total	23.3	15.5				2
Cyanide, Free	Non detect	Non detect				10
Lead, Total	1	Non detect				0.5
Mercury, Total	0.224	Non detect				0.005
Nickel, Total	Not Sampled	Not sampled				2
Selenium, Total	Non detect	Non detect				5
Silver, Total	Non detect	Non detect				0.5
Thallium, Total	Non detect	Non detect				0.5
Zinc, Total	383	180				5.0

¹ Indicate units if different than µg/L.

² Minimum Analytical Level

Table 3

Outfall No. 1	<input type="checkbox"/> C <input checked="" type="checkbox"/> G	Believed Present	Believed Absent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	No. of Samples	MAL (mg/L)
Pollutant							
Bromide			X				0.400
Color (PCU)			X				—
Nitrate-Nitrite (as N)			X				—
Sulfide (as S)			X				—
Sulfite (as SO ₃)			X				—
Surfactants			X				—
Boron, total			X				0.020
Cobalt, total			X				0.0003
Iron, total		X		0.15			0.007
Magnesium, total			X				0.020
Manganese, total		X		0.02			0.0005
Molybdenum, total			X				0.001
Tin, total			X				0.005
Titanium, total			X				0.030



SPAC-R

SPACEX
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Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

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Email: Kilgore.projectmanager@spl-inc.com



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SAMPLE CROSS REFERENCE

Project
1071179

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2226191	RETENTION POND	08/25/2023	18:30:00	08/29/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 03 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 04 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 05 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 06 16 oz HNO3 Metals Plastic
- Bottle 07 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 08 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 09 Monochloroacetic acid buffer- 60 ml vial
- Bottle 10 Monochloroacetic acid buffer- 60 ml vial
- Bottle 11 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 12 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 13 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 14 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 15 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 17 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 18 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 19 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 20 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 21 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1079418) Volume: 10.00000 mL <== Derived from 08 (5 ml)
- Bottle 23 EDB/DBCP Extract (Batch 1079485) Volume: 2.00000 mL <== Derived from 16 (36.7 ml)
- Bottle 24 Prepared Bottle: 40 mL Vial Extract (Batch 1079539) Volume: 10.00000 mL <== Derived from 02 (1018 ml)
- Bottle 25 Prepared Bottle: Mercury Preparation for Metals (Batch 1079638) Volume: 50.00000 mL <== Derived from 06 (25 ml)
- Bottle 26 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1079419) Volume: 10.00000 mL <== Derived from 08 (5 ml)
- Bottle 27 Prepared Bottle: ICP Preparation for Metals (Batch 1079730) Volume: 50.00000 mL <== Derived from 06 (50 ml)
- Bottle 28 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 05 (1030 ml)
- Bottle 29 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 04 (1033 ml)
- Bottle 30 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 03 (1027 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 515.1 4	24	1079539	08/30/2023	1080001	09/01/2023
EPA 531.2 1	09	1081616	09/13/2023	1081616	09/13/2023
EPA 504.1 1.1	23	1079485	08/29/2023	1079494	08/29/2023
EPA 300.0 2.1	01	1079426	08/29/2023	1079426	08/29/2023
EPA 300.0 2.1	01	1079427	08/29/2023	1079427	08/29/2023
EPA 524.2 4.1	13	1080360	09/05/2023	1080360	09/05/2023
EPA 525.2 2	28	1080305	09/05/2023	1081903	09/14/2023

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Sample	Sample ID	Taken	Time	Received
2226191	RETENTION POND	08/25/2023	18:30:00	08/29/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 03 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 04 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 05 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 06 16 oz HNO3 Metals Plastic
- Bottle 07 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 08 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 09 Monochloroacetic acid buffer- 60 ml vial
- Bottle 10 Monochloroacetic acid buffer- 60 ml vial
- Bottle 11 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 12 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 13 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 14 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 15 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 16 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
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- Bottle 19 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 20 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 21 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 22 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1079418) Volume: 10.00000 mL <== Derived from 08 (5 ml)
- Bottle 23 EDB/DBCP Extract (Batch 1079485) Volume: 2.00000 mL <== Derived from 16 (36.7 ml)
- Bottle 24 Prepared Bottle: 40 mL Vial Extract (Batch 1079539) Volume: 10.00000 mL <== Derived from 02 (1018 ml)
- Bottle 25 Prepared Bottle: Mercury Preparation for Metals (Batch 1079638) Volume: 50.00000 mL <== Derived from 06 (25 ml)
- Bottle 26 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1079419) Volume: 10.00000 mL <== Derived from 08 (5 ml)
- Bottle 27 Prepared Bottle: ICP Preparation for Metals (Batch 1079730) Volume: 50.00000 mL <== Derived from 06 (50 ml)
- Bottle 28 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 05 (1030 ml)
- Bottle 29 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 04 (1033 ml)
- Bottle 30 Prepared Bottle: 2 mL Autosampler Vial (Batch 1080305) Volume: 1.00000 mL <== Derived from 03 (1027 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 524.2 4.1	12	1079657	08/30/2023	1079657	08/30/2023
EPA 200.8 5.4	27	1079730	08/31/2023	1080085	09/01/2023
EPA 245.1 3	25	1079638	08/31/2023	1079789	08/31/2023
SM 4500-CN ⁻ G-2016			09/05/2023		09/05/2023
SM 4500-CN ⁻ G-2016	22	1079418	08/30/2023	1079959	08/31/2023
SM 4500-CN ⁻ E-2016	26	1079419	08/31/2023	1080009	09/01/2023
SM 2130 B-2011	01	1079659	08/30/2023	1079659	08/30/2023

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 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2226194	RETENTION POND	08/25/2023	18:30:00	08/29/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Amber 32 Oz
- Bottle 03 Amber 32 Oz
- Bottle 04 HNO3 to pH <2 Polyethylene 250 mL for Metals
- Bottle 05 Prepared Bottle: ICP Preparation for Metals (Batch 1079465) Volume: 50.00000 mL <== Derived from 04 (50 ml)
- Bottle 06 Prepared Bottle: ICP Preparation for Metals (Batch 1080080) Volume: 50.00000 mL <== Derived from 04 (50 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1079752	08/30/2023	1079752	08/30/2023
EPA 200.8 5.4	06	1080080	09/05/2023	1080246	09/05/2023
EPA 200.7 4.4	05	1079465	08/30/2023	1079589	08/30/2023
SM 2320 B-2011	01	1080143	09/05/2023	1080143	09/05/2023
SM 2510 B-2011	02	1079590	08/30/2023	1079590	08/30/2023
SM 2330 B-1993			09/05/2023		09/05/2023
SM 2120 B-2011	02	1080196	08/29/2023	1080196	08/29/2023
SM 2540 C-2015	01	1079573	08/30/2023	1079573	08/30/2023
SM 2340 C-2011	04	1082748	09/21/2023	1082748	09/21/2023
SM 4500-H+ B-2011	02	1079591	08/30/2023	1079591	08/30/2023

Sample	Sample ID	Taken	Time	Received
2226195	RETENTION POND	08/25/2023	18:30:00	08/29/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 03 8 oz Plastic H2SO4 pH < 2
- Bottle 04 8 oz Plastic H2SO4 pH < 2
- Bottle 05 BOD Titration Beaker A (Batch 1079406) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 06 BOD Analytical Beaker B (Batch 1079406) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 07 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1079416) Volume: 20.00000 mL <== Derived from 03 (20 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1079752	08/30/2023	1079752	08/30/2023
SM 5210 B-2016	01	1079406	09/04/2023	1079406	09/04/2023
SM 5220 D-2011	03	1080179	09/05/2023	1080179	09/05/2023
Calc TKN+N2+N3	07	1079416	08/30/2023	1079954	09/05/2023
EPA 351.2 2	07	1079416	08/30/2023	1079954	09/01/2023
SM 4500-P E-2011	03	1080645	09/07/2023	1080645	09/07/2023

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Sample	Sample ID	Taken	Time	Received
2226195	RETENTION POND	08/25/2023	18:30:00	08/29/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 03 8 oz Plastic H2SO4 pH < 2
- Bottle 04 8 oz Plastic H2SO4 pH < 2
- Bottle 05 BOD Titration Beaker A (Batch 1079406) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 06 BOD Analytical Beaker B (Batch 1079406) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 07 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1079416) Volume: 20.00000 mL <== Derived from 03 (20 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
SM 2540 D-2015	01	1079834	08/30/2023	1079834	08/30/2023
EPA 1664B	02	1079962	09/05/2023	1079962	09/05/2023

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SPAC-R

SPACE X
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Project
1071179

Report Date: 09/22/2023
 Printed: 09/28/2023

RESULTS

Sample Results

Sample ID	Location	Water / EPA Primary	Received:			
2226191	RETENTION POND	Water / EPA Primary	08/29/2023			
Drinking Water	Collected by: JAS	SPL	PO: STARBASE PO – invoices bt			
	Taken: 08/25/2023	18:30:00				
Prepared: 1079290 08/25/2023 18:35:00 Analyzed 1079290 08/25/2023 18:35:00 JAS						
Parameter	Results	Units	RL	Flags	CAS	Bottle
Field Cl2 Check for CNa	POS					
Prepared: 1079291 08/25/2023 18:35:00 Analyzed 1079291 08/25/2023 18:35:00 JAS						
Parameter	Results	Units	RL	Flags	CAS	Bottle
Field Sulfide Check for CNa	NEG	mg/L				
EPA 200.8 5.4 Prepared: 1079730 08/31/2023 10:45:00 Analyzed 1080085 09/01/2023 17:45:00 JC2						
Parameter	Results	Units	RL	Flags	CAS	Bottle
Antimony, Total	<0.003	mg/L	0.003		7440-36-0	27
Arsenic, Total	<0.003	mg/L	0.003		7440-38-2	27
Barium, Total	0.122	mg/L	0.005		7440-39-3	27
Beryllium, Total	<0.001	mg/L	0.001		7440-41-7	27
Cadmium, Total	0.00321	mg/L	0.001		7440-43-9	27
Chromium, Total	0.00697	mg/L	0.001		7440-47-3	27
Copper, Total	0.0155	mg/L	0.001		7440-50-8	27
Lead, Total	<0.001	mg/L	0.001		7439-92-1	27
Selenium, Total	<0.005	mg/L	0.005		7782-49-2	27
Thallium, Total	<0.001	mg/L	0.001		7440-28-0	27
EPA 245.1 3 Prepared: 1079638 08/31/2023 07:15:00 Analyzed 1079789 08/31/2023 10:51:00 ESG						
Parameter	Results	Units	RL	Flags	CAS	Bottle
Mercury, Total	<0.200	ug/L	0.200		7439-97-6	25
EPA 300.0 2.1 Prepared: 1079426 08/29/2023 15:01:00 Analyzed 1079426 08/29/2023 15:01:00 KAP						
Parameter	Results	Units	RL	Flags	CAS	Bottle
Fluoride	0.610	mg/L	0.100			01



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2226191 RETENTION POND

Water / EPA Primary

Received: 08/29/2023

Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

EPA 300.0 2.1 Prepared: 1079427 08/29/2023 15:01:00 Analyzed 1079427 08/29/2023 15:01:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC DW Nitrate-Nitrogen Total	0.369	mg/L	0.0226	H	14797-55-8	01
NELAC DW Nitrite-Nitrogen, Total	0.0503	mg/L	0.0304	H		01

EPA 504.1 1.1 Prepared: 1079485 08/29/2023 13:25:00 Analyzed 1079494 08/29/2023 19:46:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z 1,2,3-Trichloropropane	<0.050	ug/L	0.050		96-18-4	23
NELAC 1,2-Dibromo-3-chloropropane DBCP	<0.050	ug/L	0.050		96-12-8	23
NELAC 1,2-Dibromoethane	<0.050	ug/L	0.050		109-93-4	23

EPA 515.1 4 Prepared: 1079539 08/30/2023 14:00:00 Analyzed 1080001 09/01/2023 06:23:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 2,4 Dichlorophenoxyacetic acid	<0.491	ug/L	0.491	X	94-75-7	24
NELAC 2,4,5-TP (Silvex)	<0.491	ug/L	0.491		93-72-1	24
NELAC Dinoseb	<0.491	ug/L	0.491	D	88-85-7	24
NELAC Pentachlorophenol	<0.491	ug/L	0.491		87-86-5	24
NELAC Picloram	<0.491	ug/L	0.491		1918-02-1	24

EPA 515.1 4 Prepared: 1079539 08/30/2023 14:00:00 Analyzed 1080001 09/01/2023 19:03:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Dalapon (dichloropropionic acid)	<19.6	ug/L	19.6	XD	75-99-0	24

EPA 524.2 4.1 Prepared: 1079657 08/30/2023 15:30:00 Analyzed 1079657 08/30/2023 15:30:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Epichlorohydrin	<20.0	ug/L	20.0		106-89-8	12

EPA 524.2 4.1 Prepared: 1080360 09/05/2023 15:33:00 Analyzed 1080360 09/05/2023 15:33:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	13
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	13
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	13
NELAC 1,2,4-Trichlorobenzene	<1.00	ug/L	1.00		120-82-1	13
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	13



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2226191 RETENTION POND Water / EPA Primary Received: 08/29/2023
 Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

EPA 524.2 4.1 Prepared: 1080360 09/05/2023 15:33:00 Analyzed 1080360 09/05/2023 15:33:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	13
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	13
z Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	13
z Bromoform	<1.00	ug/L	1.00		75-25-2	13
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	13
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	13
z Chloroform	<1.00	ug/L	1.00		67-66-3	13
NELAC cis-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-59-2	13
z Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	13
NELAC Dichloromethane	<1.00	ug/L	1.00		75-09-2	13
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	13
NELAC m- and p-Xylene	<2.00	ug/L	2.00		ARC-mpXyl	13
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	13
NELAC o-Xylene	<1.00	ug/L	1.00		95-47-6	13
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	13
NELAC Styrene	<1.00	ug/L	1.00		100-42-5	13
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	13
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	13
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	13
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	13
NELAC Vinyl chloride	<1.06	ug/L	1.06		75-01-4	13

EPA 524.2 4.1 Prepared: 1080360 09/07/2023 16:31:36 Calculated 1080360 09/07/2023 16:31:36 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Trihalomethanes (Total)	<0.001	mg/L	0.001			13
NELAC Xylenes, Total	<2.00	ug/L	2.00		1330-20-7	13

EPA 525.2 2 Prepared: 1080305 09/06/2023 10:30:00 Analyzed 1081903 09/14/2023 18:33:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Alachlor	<0.0971	ug/L	0.0971		15972-60-8	28
NELAC Atrazine	<0.0971	ug/L	0.0971	PD	1912-24-9	28
NELAC Benzo(a)pyrene	0.252	ug/L	0.0971	PD	50-32-8	28
NELAC Bis(2-ethylhexyl)adipate	<0.0971	ug/L	0.0971	SP	103-23-1	28
NELAC Bis(2-ethylhexyl)phthalate	1.04	ug/L	0.0971	BSPD	117-81-7	28



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 Taken: 08/25/2023 18:30:00

EPA 525.2 2 Prepared: 1080305 09/06/2023 10:30:00 Analyzed 1081903 09/14/2023 18:33:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Endrin	<0.0971	ug/L	0.0971	SXPD	72-20-8	28
NELAC gamma-BCH (Lindane)	<0.0971	ug/L	0.0971		58-89-9	28
NELAC Heptachlor	<0.0971	ug/L	0.0971	SPD	76-44-8	28
NELAC Heptachlor epoxide	<0.0971	ug/L	0.0971	SPD	1024-57-3	28
NELAC Hexachlorobenzene	<0.0971	ug/L	0.0971	SPD	118-74-1	28
NELAC Hexachlorocyclopentadiene	<0.0971	ug/L	0.0971	SPD	77-47-4	28
NELAC Methoxychlor	<0.0971	ug/L	0.0971	SPD	72-43-5	28
NELAC Simazine	<0.0971	ug/L	0.0971	SPD	122-34-9	28

EPA 531.2 1 Prepared: 1081616 09/13/2023 23:16:00 Analyzed 1081616 09/13/2023 23:16:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
Carbofuran	<10.0	ug/L	10.0		1563-66-2	09
Oxamyl	<10.0	ug/L	10.0		23135-22-0	09

SM 2130 B-2011 Prepared: 1079659 08/30/2023 08:37:00 Analyzed 1079659 08/30/2023 08:37:00 NHL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Turbidity	21	NTU	0.300	H		01

SM 4500-CN⁻E-2016 Prepared: 1079419 08/31/2023 08:45:00 Analyzed 1080009 09/01/2023 13:03:00 REI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide, total	0.299	mg/L	0.005			26

SM 4500-CN⁻G-2016 Prepared: 09/05/2023 06:30:38 Calculated 09/05/2023 06:30:38 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide - Available/Amenable	0.269	mg/L	0.030			

SM 4500-CN⁻G-2016 Prepared: 1079418 08/30/2023 08:38:10 Analyzed 1079959 08/31/2023 13:44:00 REI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cyanide After Chlorination	<0.030	mg/L	0.030			22



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2226194 RETENTION POND Water / EPA Secondary Received: 08/29/2023
 Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

EPA 200.7 4.4 Prepared: 1079465 08/30/2023 09:15:00 Analyzed 1079589 08/30/2023 14:18:00 ESG

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Calcium	69.5	mg/L	0.100		7440-70-2	05
NELAC Iron, Total	0.619	mg/L	0.025		7439-89-6	05
NELAC Sodium	135	mg/L	0.500		7440-23-5	05

EPA 200.8 5.4 Prepared: 1080080 09/05/2023 09:40:00 Analyzed 1080246 09/05/2023 17:38:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Aluminum, Total	0.951	mg/L	0.005		7429-90-5	06
NELAC Copper, Total	0.0133	mg/L	0.001		7440-50-8	06
NELAC Manganese, Total	0.0262	mg/L	0.001		7439-96-5	06
NELAC Silver, Total	<0.001	mg/L	0.001		7440-22-4	06
NELAC Zinc, Total	0.180	mg/L	0.001		7440-66-6	06

EPA 300.0 2.1 Prepared: 1079752 08/30/2023 18:16:00 Analyzed 1079752 08/30/2023 18:16:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chloride	152	mg/L	3.00			01
NELAC Fluoride	<1.00	mg/L	1.00			01
NELAC Sulfate	232	mg/L	3.00			01

SM 2120 B-2011 Prepared: 1080196 08/29/2023 15:00:00 Analyzed 1080196 08/29/2023 15:00:00 NHL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Color	15	PtCo Units	5.0	H		02

SM 2320 B-2011 Prepared: 1080143 09/05/2023 09:11:00 Analyzed 1080143 09/05/2023 09:11:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Total Alkalinity (as CaCO3)	115	mg/L	1.00			01

SM 2330 B-1993 Prepared: 09/05/2023 18:01:15 Calculated 09/05/2023 18:01:15 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Langelier Saturation Index @22C	0.4722					



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2226194 RETENTION POND Water / EPA Secondary Received: 08/29/2023
 Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

SM 2330 B-1993 Prepared: 09/05/2023 18:30:33 Calculated 09/05/2023 18:30:33 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Corrosivity - Drinking Water	Slight Scale					

SM 2340 C-2011 Prepared: 1082748 09/21/2023 13:44:00 Analyzed 1082748 09/21/2023 13:44:00 NHL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Total Hardness (as CaCO3)	250	mg/L	25			04

SM 2510 B-2011 Prepared: 1079590 08/30/2023 15:15:00 Analyzed 1079590 08/30/2023 15:15:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
Lab Spec. Conductance at 25 C	1190	umhos/cm				02

SM 2540 C-2015 Prepared: 1079573 08/30/2023 08:30:00 Analyzed 1079573 08/30/2023 08:30:00 MLP

Parameter	Results	Units	RL	Flags	CAS	Bottle
Total Dissolved Solids	660	mg/L	50.0			01

SM 4500-H+ B-2011 Prepared: 1079591 08/30/2023 15:15:00 Analyzed 1079591 08/30/2023 15:15:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
Laboratory pH	8.2@18C	SU	2.00			02

2226195 RETENTION POND Water / Additional Received: 08/29/2023
 Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

Calc TKN+N2+N3 Prepared: 1079416 08/30/2023 08:31:55 Calculated 1079954 09/05/2023 15:00:17 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Nitrogen, Total	1.30	mg/L	0.050			07



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2226195 RETENTION POND Water / Additional Received: 08/29/2023
 Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/25/2023 18:30:00

EPA 1664B		Prepared: 1079962 09/05/2023 10:00:00			Analyzed 1079962 09/05/2023 10:00:00			RRF
Parameter	Results	Units	RL	Flags	CAS	Bottle		
NELAC Oil and Grease (HEM)	<4.44	mg/L	4.44			02		
EPA 300.0 2.1		Prepared: 1079752 08/30/2023 21:09:00			Analyzed 1079752 08/30/2023 21:09:00			KAP
NELAC Fluoride	<1.00	mg/L	1.00			01		
NELAC Nitrate-Nitrite Nitrogen	<0.530	mg/L	0.530			01		
EPA 351.2 2		Prepared: 1079416 08/30/2023 08:31:55			Analyzed 1079954 09/01/2023 08:27:00			AMB
NELAC Total Kjeldahl Nitrogen	1.30	mg/L	0.050		7723-37-9	07		
SM 2540 D-2015		Prepared: 1079834 08/30/2023 08:15:00			Analyzed 1079834 08/30/2023 08:15:00			SLS
NELAC Total Suspended Solids	15.5	mg/L	2.00			01		
SM 4500-P E-2011		Prepared: 1080645 09/07/2023 14:30:00			Analyzed 1080645 09/07/2023 14:30:00			SRJ
NELAC Phosphorus (as P), total	0.176	mg/L	0.010		7723-14-0	03		
SM 5210 B-2016		Prepared: 1079406 08/30/2023			Analyzed 1079406 09/04/2023 12:11:59			JWI
NELAC Biochemical Oxygen Demand (BOD5)	4.82	mg/L	3.00	H	1026-3	01		
SM 5220 D-2011		Prepared: 1080179 09/05/2023 12:20:00			Analyzed 1080179 09/05/2023 12:20:00			TTC
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			03		

Sample Preparation



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2226191	RETENTION POND	Water / EPA Primary	Received:	08/29/2023
			STARBASE PO – invoices bt	
		08/25/2023		
		Prepared: 08/30/2023 09:01:26	Calculated: 08/30/2023 09:01:26	CAL
z	SUB Shipped	Verified		
	EPA 200.2 2.8	Prepared: 1079730 08/31/2023 10:45:00	Analyzed: 1079730 08/31/2023 10:45:00	HLT
z	Liquid Metals Digestion	50/50 ml		06
	EPA 245.1 3	Prepared: 1079638 08/31/2023 07:15:00	Analyzed: 1079638 08/31/2023 07:15:00	ALB
NELAC	Mercury Liquid Metals Digestion	50/25 ml		06
	EPA 504.1	Prepared: 1079485 08/29/2023 13:25:00	Analyzed: 1079485 08/29/2023 13:25:00	DWL
	EDB/DBCP Extraction	2/36.73 ml		21
	EPA 504.1 1.1	Prepared: 1079485 08/29/2023 13:25:00	Analyzed: 1079494 08/29/2023 19:46:00	DWL
NELAC	DW EDB and DBCPby GC/ECD	Entered		23
	EPA 515.1 4	Prepared: 1079539 08/30/2023 14:00:00	Analyzed: 1079539 08/30/2023 14:00:00	CED
NELAC	Herbicides Extraction/Derivative	10/1018 ml		02
	EPA 515.1 4	Prepared: 1079539 08/30/2023 14:00:00	Analyzed: 1080001 09/01/2023 19:03:00	BLF
NELAC	Drinking Water Herbicides	Entered		24
	EPA 524.2 4.1	Prepared: 1079657 08/30/2023 15:30:00	Analyzed: 1079657 08/30/2023 15:30:00	PMI



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2226191 RETENTION POND

Water / EPA Primary

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EPA 524.2 4.1 Prepared: 1079657 08/30/2023 15:30:00 Analyzed 1079657 08/30/2023 15:30:00 PMI

NELAC **Epichlorohydrin Exp.** Entered 12

EPA 524.2 4.1 Prepared: 1080360 09/05/2023 15:33:00 Analyzed 1080360 09/05/2023 15:33:00 DWL

NELAC **EPA Primary DW List Volatiles** Entered 13

EPA 525.2 2 Prepared: 1080305 09/06/2023 10:30:00 Analyzed 1080305 09/06/2023 10:30:00 CRS

NELAC **Solid Phase Extraction 525.2 SV** 1/1030 ml 05

EPA 525.2 2 Prepared: 1080305 09/06/2023 10:30:00 Analyzed 1081903 09/14/2023 18:33:00 DWL

NELAC **EPA Primary DW ABN/Pest** Entered 28

EPA 531.2 Prepared: 1081616 09/13/2023 23:16:00 Analyzed 1081616 09/13/2023 23:16:00 BRU

DW-Oxamyl & Carbofuran Expansion Entered 09

SM 4500-CN⁻C-2016 Prepared: 1079418 08/30/2023 08:38:10 Analyzed 1079418 08/30/2023 08:38:10 REI

NELAC **CN Dist After Chlorination** 10/5 ml 08

SM 4500-CN⁻C-2016 Prepared: 1079419 08/31/2023 08:45:00 Analyzed 1079419 08/31/2023 08:45:00 REI

NELAC **Cyanide Distillation** 10/5 ml 08

2226194 RETENTION POND

Water / EPA Secondary

Received: 08/29/2023

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2226194 **RETENTION POND** Water / EPA Secondary Received: 08/29/2023
 08/25/2023 STARBASE PO – invoices bt

Prepared: 08/30/2023 09:01:27 Calculated: 08/30/2023 09:01:27 CAL

Environmental Fee (per Project) **Verified**
 EPA 200.2 2.8 Prepared: 1079465 08/30/2023 09:15:00 Analyzed 1079465 08/30/2023 09:15:00 HLT

Liquid Metals Digestion **50/50** **ml** **04**
 EPA 200.2 2.8 Prepared: 1080080 09/05/2023 09:40:00 Analyzed 1080080 09/05/2023 09:40:00 ALH

Liquid Metals Digestion **50/50** **ml** **04**
 SM 2540 C-2011 Prepared: 1079414 08/30/2023 08:30:00 Analyzed 1079414 08/30/2023 08:30:00 MLP

Total Dissolved Solids Started **Started**

2226195 **RETENTION POND** Water / Additional Received: 08/29/2023
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EPA 351.2, Rev 2.0 Prepared: 1079416 08/30/2023 08:31:55 Analyzed 1079416 08/30/2023 08:31:55 GDL

TKN Block Digestion **20/20** **ml** **03**
 SM 2540 D-2011 Prepared: 1078065 08/30/2023 08:15:00 Analyzed 1078065 08/30/2023 08:15:00 SLS

TSS Set Started **Started**



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2226195 RETENTION POND

Water / Additional

Received: 08/29/2023

STARBASE PO – invoices bt

08/25/2023

SM 5210 B-2016

Prepared: 1079406 08/30/2023

Analyzed 1079406 08/30/2023

05:47:44 JW1

NELAC **BOD Set Started**

Started

H

Qualifiers:

- B - Analyte detected in the associated method blank
- H - Sample started outside recommended holding time
- X - Standard reads higher than desired.
- D - Duplicate RPD was higher than expected
- P - Spike recovery outside control limits due to matrix effects.
- S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details

(N)ELAC - Covered in our NELAC scope of accreditation
 z -- Not covered by our NELAC scope of accreditation

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 RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Trey Peery, MA, Project Manager



QUALITY CONTROL



SPAC-R

SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1071179

Printed 09/28/2023

Analytical Set **1082748**

SM 2340 C-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Hardness (as CaCO3)	1082748	ND	5.0	5.0	mg/L	125460038

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Hardness (as CaCO3)	2226958	120	120	mg/L	0	20

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Hardness (as CaCO3)	1082748	1000	1000	mg/L	100	80 - 120	125460039

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Hardness (as CaCO3)	2226958	160	120	40	mg/L	100	70 - 130	125460042

Analytical Set **1079406**

SM 5210 B-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1079406	0.2	0.200	0.500	mg/L	125388047
Biochemical Oxygen Demand (BOD5)	1079406	0.2	0.200	0.500	mg/L	125388097

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Biochemical Oxygen Demand (BOD5)	2226111	9.62	9.38	mg/L	2.53	30.0
Biochemical Oxygen Demand (BOD5)	2226289	3.29	2.89	mg/L	12.9	30.0
Biochemical Oxygen Demand (BOD5)	2226404	9.28	9.80	mg/L	5.45	30.0
Biochemical Oxygen Demand (BOD5)	2226435	6.72	7.28	mg/L	8.00	30.0

Seed Drop

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)	1079406	0.937	0.200	0.500	mg/L	125388049
Biochemical Oxygen Demand (BOD5)	1079406	0.870	0.200	0.500	mg/L	125388099

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Biochemical Oxygen Demand (BOD5)		218	198	mg/L	110	83.7 - 116	125388050
Biochemical Oxygen Demand (BOD5)		226	198	mg/L	114	83.7 - 116	125388100

Analytical Set **1079954**

EPA 351.2 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Kjeldahl Nitrogen	1079416	ND	0.00712	0.050	mg/L	125399989

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.28	5.00	mg/L	106	90.0 - 110	125399983



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Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.42	5.00	mg/L	108	90.0 - 110	125399985
Total Kjeldahl Nitrogen	5.25	5.00	mg/L	105	90.0 - 110	125399993
Total Kjeldahl Nitrogen	5.24	5.00	mg/L	105	90.0 - 110	125400004
Total Kjeldahl Nitrogen	5.30	5.00	mg/L	106	90.0 - 110	125400013
Total Kjeldahl Nitrogen	5.42	5.00	mg/L	108	90.0 - 110	125400018
Total Kjeldahl Nitrogen	5.44	5.00	mg/L	109	90.0 - 110	125400029
Total Kjeldahl Nitrogen	5.42	5.00	mg/L	108	90.0 - 110	125400037
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	125400046
Total Kjeldahl Nitrogen	5.25	5.00	mg/L	105	90.0 - 110	125400053

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Kjeldahl Nitrogen	2222913	282	277	mg/L	1.79	20.0
Total Kjeldahl Nitrogen	2225213	0.612	0.582	mg/L	5.03	20.0
Total Kjeldahl Nitrogen	2226160	0.010	0.067	mg/L	148 *	20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.41	5.00	mg/L	108	90.0 - 110	125399982

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Total Kjeldahl Nitrogen	1079416	5.26	5.38	5.00	90.0 - 110	105	108	mg/L	2.26	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Total Kjeldahl Nitrogen	2222913	283	277	1000	mg/L	0.600	80.0 - 120	125400040 *
Total Kjeldahl Nitrogen	2225213	5.75	0.582	5.00	mg/L	103	80.0 - 120	125399995
Total Kjeldahl Nitrogen	2226160	5.43	0.067	5.00	mg/L	107	80.0 - 120	125399998

Analytical Set 1079959

SM 4500-CN⁻ G-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide After Chlorination	1079418	ND	0.010	0.015	mg/L	125400122

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.547	0.500	mg/L	109	90.0 - 110	125400121
Cyanide After Chlorination	0.549	0.500	mg/L	110	90.0 - 110	125400131
Cyanide After Chlorination	0.546	0.500	mg/L	109	90.0 - 110	125400135
Cyanide After Chlorination	0.545	0.500	mg/L	109	90.0 - 110	125400136

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2226070	ND	ND	mg/L		20.0



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ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.212	0.200	mg/L	106	90.0 - 110	125400120

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1079418	0.201	0.206	0.200	90.0 - 110	100	103	mg/L	2.46	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2226070	0.449	ND	0.400	mg/L	112	90.0 - 110	125400127

Analytical Set **1080009**

SM 4500-CN⁻ E-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide, total	1079419	ND	0.00242	0.0025	mg/L	125401237

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.530	0.500	mg/L	106	90.0 - 110	125401236
Cyanide, total	0.529	0.500	mg/L	106	90.0 - 110	125401246
Cyanide, total	0.524	0.500	mg/L	105	90.0 - 110	125401256
Cyanide, total	0.521	0.500	mg/L	104	90.0 - 110	125401259
Cyanide, total	0.526	0.500	mg/L	105	90.0 - 110	125401260

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide, total	2226070	ND	0.0054	mg/L	200	20.0
Cyanide, total	2226071	ND	ND	mg/L	*	20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide, total	0.214	0.200	mg/L	107	90.0 - 110	125401235

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide, total	1079419	0.218	0.213	0.200	90.0 - 110	109	106	mg/L	2.32	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide, total	2226070	0.431	0.0054	0.400	mg/L	106	90.0 - 110	125401242
Cyanide, total	2226071	0.432	ND	0.400	mg/L	108	90.0 - 110	125401245

Analytical Set **1079290**

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Field Cl2 Check for CNa	2226174	NEG	NEG			20



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<i>Parameter</i>	<i>Sample</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Field Cl2 Check for CNa	1079290	0.21	0.22		95.5	90 - 110	
Field Cl2 Check for CNa	1079290	0.89	0.93		95.7	90 - 110	
Field Cl2 Check for CNa	1079290	1.6	1.7		94.1	90 - 110	

Analytical Set **1079291**

Standard

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Field Sulfide Check for CNa	2226174	NEG	NEG	mg/L		20

Analytical Set **1079573**

SM 2540 C-2015

Blank

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Total Dissolved Solids	1079573	ND	5.00	5.00	mg/L	125391654

ControlBlk

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Total Dissolved Solids	1079573	0.0001			grams	125391641

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Total Dissolved Solids	2226175	7880	7880	mg/L	0	20.0

LCS

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits</i>	<i>File</i>
Total Dissolved Solids	1079573	200	200	mg/L	100	85.0 - 115	125391655

Standard

<i>Parameter</i>	<i>Sample</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Total Dissolved Solids		100	100	mg/L	100	90.0 - 110	125391642

Analytical Set **1079834**

SM 2540 D-2015

Blank

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Total Suspended Solids	1079834	ND	2	2	mg/L	125396697

ControlBlk

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Total Suspended Solids	1079834	0			grams	125396696

Duplicate

<i>Parameter</i>	<i>Sample</i>	<i>Result</i>	<i>Unknown</i>	<i>Unit</i>	<i>RPD</i>	<i>Limit%</i>
Total Suspended Solids	2225694	10.5	11.8	mg/L	11.7	20.0
Total Suspended Solids	2225807	7820	7720	mg/L	1.29	20.0
Total Suspended Solids	2225808	4720	4700	mg/L	0.425	20.0

LCS

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits</i>	<i>File</i>
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LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Suspended Solids	1079834	50.0	50.0	mg/L	100	90.0 - 110	125396730

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Suspended Solids		98.0	100	mg/L	98.0	90.0 - 110	125396729

Analytical Set **1079962**

EPA 1664B

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1079962	ND	0.557	4.00	mg/L	125403306

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Oil and Grease (HEM)	1079962	37.8	38.1	40.0	78.0 - 114	94.5	95.2	mg/L	0.791	20.0

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2225962	33.4	0	3.76	40.0	78.0 - 114	83.5		mg/L		20.0

Analytical Set **1079426**

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.107	0.100	mg/L	107	70.0 - 130	125389264

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Fluoride	1079426	ND	0.0112	0.100	mg/L	125389263

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	10.5	10.0	mg/L	105	90.0 - 110	125389259
Fluoride	10.5	10.0	mg/L	105	90.0 - 110	125389277
Fluoride	10.2	10.0	mg/L	102	90.0 - 110	125389291

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Fluoride	1079426	5.42	5.40	5.00	88.0 - 115	108	108	mg/L	0.370	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Fluoride	2225922	48.1	48.2	ND	50.0	80.0 - 120	96.2	96.4	mg/L	0.208	20.0
Fluoride	2226190	195	196	ND	200	80.0 - 120	97.5	98.0	mg/L	0.512	20.0

Unknown

Parameter
 Fluoride

Analytical Set **1079427**

EPA 300.0 2.1



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AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
DW Nitrate-Nitrogen Total	0.0246	0.0226	mg/L	109	70.0 - 130	125389298
DW Nitrite-Nitrogen, Total	0.0378	0.0304	mg/L	124	70.0 - 130	125389298

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
DW Nitrate-Nitrogen Total	1079427	ND	0.00331	0.0226	mg/L	125389297
DW Nitrite-Nitrogen, Total	1079427	ND	0.00568	0.0304	mg/L	125389297

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
DW Nitrate-Nitrogen Total	2.36	2.26	mg/L	104	90.0 - 110	125389293
DW Nitrate-Nitrogen Total	2.35	2.26	mg/L	104	90.0 - 110	125389307
DW Nitrate-Nitrogen Total	2.28	2.26	mg/L	101	90.0 - 110	125389316
DW Nitrite-Nitrogen, Total	3.22	3.04	mg/L	106	90.0 - 110	125389293
DW Nitrite-Nitrogen, Total	3.14	3.04	mg/L	103	90.0 - 110	125389307
DW Nitrite-Nitrogen, Total	3.09	3.04	mg/L	102	90.0 - 110	125389316

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
DW Nitrate-Nitrogen Total	1079427	1.18	1.20	1.13	70.0 - 116	104	106	mg/L	1.68	30.0
DW Nitrite-Nitrogen, Total	1079427	1.63	1.62	1.52	70.0 - 115	107	107	mg/L	0.615	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
DW Nitrate-Nitrogen Total	2225922	28.8	28.9	17.2	11.3	70.0 - 130	103	104	mg/L	0.858	30.0
DW Nitrite-Nitrogen, Total	2225922	15.1	15.2	ND	15.2	70.0 - 130	99.3	100	mg/L	0.660	30.0
DW Nitrate-Nitrogen Total	2226190	47.1	49.1	1.44	45.2	70.0 - 130	101	105	mg/L	4.29	30.0
DW Nitrite-Nitrogen, Total	2226190	66.0	65.4	ND	60.8	70.0 - 130	109	108	mg/L	0.913	30.0

Unknown

Parameter
DW Nitrate-Nitrogen Total
DW Nitrate-Nitrogen Total
DW Nitrate-Nitrogen Total
DW Nitrite-Nitrogen, Total

Analytical Set 1079752

EPA 300.0 2.1

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.117	0.100	mg/L	117	70.0 - 130	125395723
Nitrate-Nitrite Nitrogen	0.0591	0.053	mg/L	112	70.0 - 130	125395723

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1079752	ND	0.0593	0.300	mg/L	125395722
Fluoride	1079752	ND	0.0112	0.100	mg/L	125395722
Nitrate-Nitrite Nitrogen	1079752	ND	0.0047	0.053	mg/L	125395722



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Sulfate	1079752	ND	0.0605	0.300	mg/L	125395722

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	9.91	10.0	mg/L	99.1	90.0 - 110	125395718
Chloride	9.92	10.0	mg/L	99.2	90.0 - 110	125395734
Chloride	9.97	10.0	mg/L	99.7	90.0 - 110	125395750
Fluoride	10.2	10.0	mg/L	102	90.0 - 110	125395718
Fluoride	10.2	10.0	mg/L	102	90.0 - 110	125395734
Fluoride	10.3	10.0	mg/L	103	90.0 - 110	125395750
Nitrate-Nitrite Nitrogen	5.34	5.30	mg/L	101	90.0 - 110	125395718
Nitrate-Nitrite Nitrogen	5.34	5.30	mg/L	101	90.0 - 110	125395734
Nitrate-Nitrite Nitrogen	5.38	5.30	mg/L	102	90.0 - 110	125395750
Sulfate	10.4	10.0	mg/L	104	90.0 - 110	125395718
Sulfate	10.9	10.0	mg/L	109	90.0 - 110	125395734
Sulfate	10.5	10.0	mg/L	105	90.0 - 110	125395750

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1079752	5.16	5.12	5.00	85.0 - 115	103	102	mg/L	0.778	20.0
Fluoride	1079752	5.33	5.37	5.00	88.0 - 115	107	107	mg/L	0.748	20.0
Nitrate-Nitrite Nitrogen	1079752	2.75	2.70	2.65	88.0 - 115	104	102	mg/L	1.83	20.0
Sulfate	1079752	5.37	5.49	5.00	88.0 - 115	107	110	mg/L	2.21	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2226184	1160	1150	1050	100	80.0 - 120	110	100	mg/L	9.52	20.0
Fluoride	2226184	102	101	ND	100	80.0 - 120	102	101	mg/L	0.985	20.0
Nitrate-Nitrite Nitrogen	2226184	55.6	55.1	ND	53.0	80.0 - 120	105	104	mg/L	0.903	20.0
Sulfate	2226184	1150	1150	1010	100	80.0 - 120	140 *	140 *	mg/L	0	20.0
Chloride	2226571	317	315	113	200	80.0 - 120	102	101	mg/L	0.985	20.0
Fluoride	2226571	205	202	ND	200	80.0 - 120	102	101	mg/L	1.47	20.0
Nitrate-Nitrite Nitrogen	2226571	108	107	ND	106	80.0 - 120	102	101	mg/L	0.930	20.0
Sulfate	2226571	534	535	365	200	80.0 - 120	84.5	85.0	mg/L	0.590	20.0

Analytical Set 1079589

EPA 200.7 4.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Calcium	1079465	ND	0.0132	0.100	mg/L	125392126
Iron, Total	1079465	ND	0.00524	0.025	mg/L	125392126
Sodium	1079465	ND	0.0973	0.500	mg/L	125392126

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	125392117
Calcium	24.7	25.0	mg/L	98.8	90.0 - 110	125392125



QUALITY CONTROL



SPAC-R

SPACEX
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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.7	25.0	mg/L	98.8	90.0 - 110	125392135
Calcium	24.7	25.0	mg/L	98.8	90.0 - 110	125392138
Calcium	25.0	25.0	mg/L	100	90.0 - 110	125392147
Iron, Total	2.52	2.50	mg/L	101	90.0 - 110	125392117
Iron, Total	2.49	2.50	mg/L	99.6	90.0 - 110	125392125
Iron, Total	2.48	2.50	mg/L	99.2	90.0 - 110	125392135
Iron, Total	2.49	2.50	mg/L	99.6	90.0 - 110	125392138
Sodium	24.9	25.0	mg/L	99.6	90.0 - 110	125392117
Sodium	23.8	25.0	mg/L	95.2	90.0 - 110	125392125
Sodium	23.4	25.0	mg/L	93.6	90.0 - 110	125392135
Sodium	22.9	25.0	mg/L	91.6	90.0 - 110	125392138
Sodium	23.5	25.0	mg/L	94.0	90.0 - 110	125392147

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.9	50.0	mg/L	99.8	95.0 - 105	125392111
Iron, Total	4.99	5.00	mg/L	99.8	95.0 - 105	125392111
Sodium	50.4	50.0	mg/L	101	95.0 - 105	125392111

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	24.9	25.0	mg/L	99.6	90.0 - 110	125392115
Iron, Total	2.51	2.50	mg/L	100	90.0 - 110	125392115
Sodium	24.7	25.0	mg/L	98.8	90.0 - 110	125392115

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1079465	4.65	4.67	5.00	85.0 - 115	93.0	93.4	mg/L	0.429	25.0
Iron, Total	1079465	0.512	0.520	0.500	85.0 - 115	102	104	mg/L	1.55	25.0
Sodium	1079465	4.39	4.43	5.00	85.0 - 115	87.8	88.6	mg/L	0.907	25.0

LDR

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Sodium	311	300	mg/L	104	90.0 - 110	125392146

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.509	0.500	mg/L	102	25.0 - 175	125392116
Iron, Total	0.039	0.050	mg/L	78.0	25.0 - 175	125392116
Sodium	0.497	0.500	mg/L	99.4	25.0 - 175	125392116

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2225776	61.5	61.7	57.4	5.00	75.0 - 125	82.0	86.0	mg/L	4.76	25.0
Iron, Total	2225776	0.718	0.751	0.289	0.500	75.0 - 125	85.8	92.4	mg/L	7.41	25.0
Calcium	2226175	174	172	143	5.00	75.0 - 125	620 *	580 *	mg/L	6.67	25.0
Iron, Total	2226175	0.762	0.797	0.350	0.500	75.0 - 125	82.4	89.4	mg/L	8.15	25.0



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MSD											
<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Sodium	2226175	616	605	517	5.00	75.0 - 125	1980 *	1760 *	mg/L	11.8	25.0

Analytical Set

1079789

EPA 245.1 3

Blank						
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Mercury, Total	1079638	ND	0.113	0.200	ug/L	125396142

CCV						
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	5.03	5.000	ug/L	101	90.0 - 110	125396140
Mercury, Total	5.08	5.000	ug/L	102	90.0 - 110	125396141
Mercury, Total	5.04	5.000	ug/L	101	90.0 - 110	125396150
Mercury, Total	4.87	5.000	ug/L	97.4	90.0 - 110	125396152

ICL						
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	19.0	20.00	ug/L	95.0	90.0 - 110	125396139

ICV						
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	4.89	5.000	ug/L	97.8	90.0 - 110	125396138

LCS Dup										
<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	1079638	8.73	9.33	10.0	85.0 - 115	87.3	93.3	ug/L	6.64	20.0

MSD											
<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	2226174	9.67	9.64	ND	10.0	70.0 - 130	96.7	96.4	ug/L	0.311	20.0

Analytical Set

1080085

EPA 200.8 5.4

Blank						
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Antimony, Total	1079730	ND	0.000847	0.003	mg/L	125403124
Arsenic, Total	1079730	ND	0.000902	0.003	mg/L	125403124
Barium, Total	1079730	ND	0.00207	0.005	mg/L	125403124
Beryllium, Total	1079730	ND	0.000162	0.001	mg/L	125403124
Cadmium, Total	1079730	ND	0.00012	0.001	mg/L	125403124
Chromium, Total	1079730	0.00081	0.000392	0.001	mg/L	125403124
Copper, Total	1079730	0.000779	0.000325	0.001	mg/L	125403124
Lead, Total	1079730	ND	0.000549	0.001	mg/L	125403124
Selenium, Total	1079730	ND	0.00294	0.005	mg/L	125403124
Thallium, Total	1079730	ND	0.000966	0.001	mg/L	125403124

CCV						
<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125403139



QUALITY CONTROL



SPAC-R

SPACE X
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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125403150
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125403160
Antimony, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	125403192
Antimony, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	125403203
Antimony, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	125403213
Arsenic, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	125403139
Arsenic, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	125403150
Arsenic, Total	0.0502	0.05	mg/L	100	90.0 - 110	125403160
Arsenic, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125403192
Arsenic, Total	0.047	0.05	mg/L	94.0	90.0 - 110	125403203
Arsenic, Total	0.049	0.05	mg/L	98.0	90.0 - 110	125403213
Barium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125403139
Barium, Total	0.0503	0.05	mg/L	101	90.0 - 110	125403150
Barium, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	125403192
Barium, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125403203
Barium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125403213
Beryllium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125403139
Beryllium, Total	0.050	0.05	mg/L	100	90.0 - 110	125403150
Beryllium, Total	0.0501	0.05	mg/L	100	90.0 - 110	125403192
Beryllium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125403203
Beryllium, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125403213
Cadmium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125403139
Cadmium, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	125403150
Cadmium, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125403192
Cadmium, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	125403203
Cadmium, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	125403213
Chromium, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125403139
Chromium, Total	0.0504	0.05	mg/L	101	90.0 - 110	125403150
Chromium, Total	0.050	0.05	mg/L	100	90.0 - 110	125403160
Copper, Total	0.0505	0.05	mg/L	101	90.0 - 110	125403096
Copper, Total	0.0504	0.05	mg/L	101	90.0 - 110	125403107
Copper, Total	0.0507	0.05	mg/L	101	90.0 - 110	125403118
Copper, Total	0.0503	0.05	mg/L	101	90.0 - 110	125403128
Copper, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125403139
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	125403150
Copper, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125403160
Copper, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125403171
Copper, Total	0.050	0.05	mg/L	100	90.0 - 110	125403182
Copper, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125403192
Copper, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	125403203
Copper, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	125403213
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125403096
Lead, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125403107
Lead, Total	0.050	0.05	mg/L	100	90.0 - 110	125403118
Lead, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125403128



QUALITY CONTROL



SPAC-R

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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lead, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	125403139
Lead, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125403150
Lead, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125403160
Lead, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	125403171
Lead, Total	0.048	0.05	mg/L	96.0	90.0 - 110	125403182
Lead, Total	0.0472	0.05	mg/L	94.4	90.0 - 110	125403192
Lead, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	125403203
Lead, Total	0.0475	0.05	mg/L	95.0	90.0 - 110	125403213
Selenium, Total	0.0513	0.05	mg/L	103	90.0 - 110	125403128
Selenium, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	125403139
Selenium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	125403150
Selenium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125403160
Selenium, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	125403192
Selenium, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	125403203
Selenium, Total	0.0517	0.05	mg/L	103	90.0 - 110	125403213
Thallium, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	125403128
Thallium, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125403139
Thallium, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	125403150
Thallium, Total	0.0464	0.05	mg/L	92.8	90.0 - 110	125403192
Thallium, Total	0.0462	0.05	mg/L	92.4	90.0 - 110	125403203
Thallium, Total	0.0475	0.05	mg/L	95.0	90.0 - 110	125403213

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.0505	0.05	mg/L	101	90.0 - 110	125403088
Arsenic, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	125403088
Barium, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125403088
Beryllium, Total	0.050	0.05	mg/L	100	90.0 - 110	125403088
Cadmium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125403088
Chromium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125403088
Copper, Total	0.0519	0.05	mg/L	104	90.0 - 110	125403088
Lead, Total	0.0508	0.05	mg/L	102	90.0 - 110	125403088
Selenium, Total	0.0479	0.05	mg/L	95.8	90.0 - 110	125403088
Thallium, Total	0.0507	0.05	mg/L	101	90.0 - 110	125403088

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Antimony, Total	1079730	0.495	0.497	0.500	85.0 - 115	99.0	99.4	mg/L	0.403	20.0
Arsenic, Total	1079730	0.467	0.473	0.500	85.0 - 115	93.4	94.6	mg/L	1.28	20.0
Barium, Total	1079730	0.478	0.485	0.500	85.0 - 115	95.6	97.0	mg/L	1.45	20.0
Beryllium, Total	1079730	0.203	0.205	0.200	85.0 - 115	102	102	mg/L	0.980	20.0
Cadmium, Total	1079730	0.245	0.248	0.250	85.0 - 115	98.0	99.2	mg/L	1.22	20.0
Chromium, Total	1079730	0.517	0.519	0.500	85.0 - 115	103	104	mg/L	0.386	20.0
Copper, Total	1079730	0.487	0.501	0.500	85.0 - 115	97.4	100	mg/L	2.83	20.0
Lead, Total	1079730	0.483	0.484	0.500	85.0 - 115	96.6	96.8	mg/L	0.207	20.0



QUALITY CONTROL



SPAC-R

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LCS Dup

<i>Parameter</i>	<i>PrepSet</i>	<i>LCS</i>	<i>LCSD</i>	<i>Known</i>	<i>Limits%</i>	<i>LCS%</i>	<i>LCSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Selenium, Total	1079730	0.462	0.471	0.500	85.0 - 115	92.4	94.2	mg/L	1.93	20.0
Thallium, Total	1079730	0.507	0.508	0.500	85.0 - 115	101	102	mg/L	0.197	20.0

MRL Check

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Copper, Total	0.000899	0.001	mg/L	89.9	25.0 - 175	125403089
Lead, Total	0.000855	0.001	mg/L	85.5	25.0 - 175	125403089

MSD

<i>Parameter</i>	<i>Sample</i>	<i>MS</i>	<i>MSD</i>	<i>UNK</i>	<i>Known</i>	<i>Limits</i>	<i>MS%</i>	<i>MSD%</i>	<i>Units</i>	<i>RPD</i>	<i>Limit%</i>
Copper, Total	2226447	0.740	0.747	0.224	0.500	70.0 - 130	103	105	mg/L	1.35	20.0
Lead, Total	2226447	0.473	0.481	0.00292	0.500	70.0 - 130	94.0	95.6	mg/L	1.69	20.0
Thallium, Total	2226447	0.490	0.501	ND	0.500	70.0 - 130	98.0	100	mg/L	2.22	20.0
Antimony, Total	2226844	0.490	0.488	ND	0.500	70.0 - 130	98.0	97.6	mg/L	0.409	20.0
Arsenic, Total	2226844	0.525	0.528	0.0587	0.500	70.0 - 130	93.3	93.9	mg/L	0.641	20.0
Barium, Total	2226844	0.506	0.519	0.0399	0.500	70.0 - 130	93.2	95.8	mg/L	2.75	20.0
Beryllium, Total	2226844	0.200	0.204	ND	0.200	70.0 - 130	100	102	mg/L	1.98	20.0
Cadmium, Total	2226844	0.238	0.240	ND	0.250	70.0 - 130	95.2	96.0	mg/L	0.837	20.0
Chromium, Total	2226844	0.486	0.494	0.00104	0.500	70.0 - 130	97.0	98.6	mg/L	1.64	20.0
Copper, Total	2226844	0.460	0.474	0.00261	0.500	70.0 - 130	91.5	94.3	mg/L	3.01	20.0
Lead, Total	2226844	0.456	0.460	ND	0.500	70.0 - 130	91.2	92.0	mg/L	0.873	20.0
Selenium, Total	2226844	0.456	0.458	0.0119	0.500	70.0 - 130	88.8	89.2	mg/L	0.449	20.0

Analytical Set 1080246

EPA 200.8 5.4

Blank

<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MQL</i>	<i>Units</i>	<i>File</i>
Aluminum, Total	1080080	ND	0.0039	0.005	mg/L	125406616
Copper, Total	1080080	ND	0.000325	0.001	mg/L	125406616
Manganese, Total	1080080	0.000303	0.000168	0.001	mg/L	125406616
Silver, Total	1080080	ND	0.000276	0.001	mg/L	125406616
Zinc, Total	1080080	ND	0.000844	0.001	mg/L	125406616

CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
Aluminum, Total	0.0508	0.05	mg/L	102	90.0 - 110	125406615
Aluminum, Total	0.0511	0.05	mg/L	102	90.0 - 110	125406626
Aluminum, Total	0.0532	0.05	mg/L	106	90.0 - 110	125406679
Aluminum, Total	0.0509	0.05	mg/L	102	90.0 - 110	125406689
Copper, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125406615
Copper, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125406626
Copper, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125406637
Copper, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125406647
Copper, Total	0.0476	0.05	mg/L	95.2	90.0 - 110	125406658
Copper, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125406669
Copper, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	125406679
Copper, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	125406689



QUALITY CONTROL



SPAC-R

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Manganese, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125406615
Manganese, Total	0.0484	0.05	mg/L	96.8	90.0 - 110	125406626
Manganese, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	125406637
Silver, Total	0.0512	0.05	mg/L	102	90.0 - 110	125406615
Silver, Total	0.0513	0.05	mg/L	103	90.0 - 110	125406626
Silver, Total	0.053	0.05	mg/L	106	90.0 - 110	125406679
Silver, Total	0.0514	0.05	mg/L	103	90.0 - 110	125406689
Zinc, Total	0.0513	0.05	mg/L	103	90.0 - 110	125406615
Zinc, Total	0.0502	0.05	mg/L	100	90.0 - 110	125406626
Zinc, Total	0.0507	0.05	mg/L	101	90.0 - 110	125406679
Zinc, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125406689

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.0512	0.05	mg/L	102	90.0 - 110	125406607
Copper, Total	0.0514	0.05	mg/L	103	90.0 - 110	125406607
Manganese, Total	0.051	0.05	mg/L	102	90.0 - 110	125406607
Silver, Total	0.0529	0.05	mg/L	106	90.0 - 110	125406607
Zinc, Total	0.0518	0.05	mg/L	104	90.0 - 110	125406607

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Aluminum, Total	1080080	0.517	0.537	0.500	85.0 - 115	103	107	mg/L	3.80	20.0
Copper, Total	1080080	0.490	0.512	0.500	85.0 - 115	98.0	102	mg/L	4.39	20.0
Manganese, Total	1080080	0.513	0.525	0.500	85.0 - 115	103	105	mg/L	2.31	20.0
Silver, Total	1080080	0.102	0.105	0.100	85.0 - 115	102	105	mg/L	2.90	20.0
Zinc, Total	1080080	0.500	0.513	0.500	85.0 - 115	100	103	mg/L	2.57	20.0

LDR

Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	9.82	10	mg/L	98.2	90.0 - 110	125406612
Copper, Total	9.60	10	mg/L	96.0	90.0 - 110	125406612
Manganese, Total	9.82	10	mg/L	98.2	90.0 - 110	125406612
Silver, Total	ND	0.2	mg/L	0	90.0 - 110	125406612
Silver, Total	ND	0.2	mg/L	0	90.0 - 110	125406613
Silver, Total	ND	0.2	mg/L	0	90.0 - 110	125406614
Zinc, Total	9.82	10	mg/L	98.2	90.0 - 110	125406612

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.000892	0.001	mg/L	89.2	25.0 - 175	125406608
Manganese, Total	0.000912	0.001	mg/L	91.2	25.0 - 175	125406608

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Aluminum, Total	2226330	0.546	0.538	0.022	0.500	70.0 - 130	105	103	mg/L	1.54	20.0
Copper, Total	2226330	0.497	0.495	0.00515	0.500	70.0 - 130	98.4	98.0	mg/L	0.407	20.0



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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Manganese, Total	2226330	0.514	0.514	0.00186	0.500	70.0 - 130	102	102	mg/L	0	20.0
Silver, Total	2226330	0.102	0.103	ND	0.100	70.0 - 130	102	103	mg/L	0.976	20.0
Zinc, Total	2226330	0.511	0.509	0.00785	0.500	70.0 - 130	101	100	mg/L	0.398	20.0
Copper, Total	2227127	0.497	0.496	0.0119	0.500	70.0 - 130	97.0	96.8	mg/L	0.206	20.0

Analytical Set **1079494**

EPA 504.1 1.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,3-Trichloropropane	1079485	ND	0.0267	0.050	ug/L	125390247
1,2-Dibromo-3-chloropropane DBCP	1079485	ND	0.0121	0.050	ug/L	125390247
1,2-Dibromoethane	1079485	ND	0.0132	0.050	ug/L	125390247

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
1,2,3-Trichloropropane	0.484	0.500	ug/L	96.8	70.0 - 130	125390246
1,2,3-Trichloropropane	0.583	0.500	ug/L	117	70.0 - 130	125390260
1,2-Dibromo-3-chloropropane DBCP	0.461	0.500	ug/L	92.2	70.0 - 130	125390246
1,2-Dibromo-3-chloropropane DBCP	0.603	0.500	ug/L	121	70.0 - 130	125390260
1,2-Dibromoethane	0.576	0.500	ug/L	115	70.0 - 130	125390246
1,2-Dibromoethane	0.644	0.500	ug/L	129	70.0 - 130	125390260

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,3-Trichloropropane	1079485	0.224	0.255	0.250	70.0 - 130	89.6	102	ug/L	12.9	30.0
1,2-Dibromo-3-chloropropane DBCP	1079485	0.214	0.249	0.250	70.0 - 130	85.6	99.6	ug/L	15.1	30.0
1,2-Dibromoethane	1079485	0.265	0.317	0.250	70.0 - 130	106	127	ug/L	18.0	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,2,3-Trichloropropane	2224392	0.462	0.549	ND	0.500	70.0 - 130	92.4	110	ug/L	17.2	30.0
1,2-Dibromo-3-chloropropane DBCP	2224392	0.446	0.483	ND	0.500	70.0 - 130	89.2	96.6	ug/L	7.97	30.0
1,2-Dibromoethane	2224392	0.524	0.547	ND	0.500	70.0 - 130	105	109	ug/L	4.30	30.0

Analytical Set **1079657**

EPA 524.2 4.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1079657	174	135	0.7	0 - 2.00	125393706
BFB Mass 174	1079657	95.0	19561	70.1	50.0 - 100	125393706
BFB Mass 175	1079657	174	1529	7.8	5.00 - 9.00	125393706
BFB Mass 176	1079657	174	18611	95.1	95.0 - 101	125393706
BFB Mass 177	1079657	176	1318	7.1	5.00 - 9.00	125393706
BFB Mass 50	1079657	95.0	5141	18.4	15.0 - 40.0	125393706
BFB Mass 75	1079657	95.0	13958	50.0	30.0 - 60.0	125393706
BFB Mass 95	1079657	95.0	27915	100.0	100 - 100	125393706
BFB Mass 96	1079657	95.0	1842	6.6	5.00 - 9.00	125393706



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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Epichlorohydrin	1079657	ND	6.85	20.0	ug/L	125393710

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Epichlorohydrin	254	200	ug/L	127	70.0 - 130	125393707

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1079657	CCV	97500	97500	48750	146300	125393707	1079657
1,4-DichlorobenzeneD4 (ISTD)	1079657	LCS	105700	97500	48750	146300	125393708	1079657
1,4-DichlorobenzeneD4 (ISTD)	1079657	LCS Dup	109900	97500	48750	146300	125393709	1079657
1,4-DichlorobenzeneD4 (ISTD)	1079657	Blank	95430	97500	48750	146300	125393710	1079657
ChlorobenzeneD5 (ISTD)	1079657	CCV	210600	210600	105300	316000	125393707	1079657
ChlorobenzeneD5 (ISTD)	1079657	LCS	230600	210600	105300	316000	125393708	1079657
ChlorobenzeneD5 (ISTD)	1079657	LCS Dup	228900	210600	105300	316000	125393709	1079657
ChlorobenzeneD5 (ISTD)	1079657	Blank	225300	210600	105300	316000	125393710	1079657
1,4-DichlorobenzeneD4 (ISTD)	2226191	Unknown	103700	97500	48750	146300	125393712	1079657
ChlorobenzeneD5 (ISTD)	2226191	Unknown	227500	210600	105300	316000	125393712	1079657

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1079657	LCS	11.10	11.10	11.04	11.16	125393708	1079657
1,4-DichlorobenzeneD4 (ISTD)	1079657	LCS Dup	11.10	11.10	11.04	11.16	125393709	1079657
1,4-DichlorobenzeneD4 (ISTD)	1079657	Blank	11.10	11.10	11.04	11.16	125393710	1079657
ChlorobenzeneD5 (ISTD)	1079657	LCS	8.739	8.739	8.679	8.799	125393708	1079657
ChlorobenzeneD5 (ISTD)	1079657	LCS Dup	8.739	8.739	8.679	8.799	125393709	1079657
ChlorobenzeneD5 (ISTD)	1079657	Blank	8.739	8.739	8.679	8.799	125393710	1079657
1,4-DichlorobenzeneD4 (ISTD)	2226191	Unknown	11.10	11.10	11.04	11.16	125393712	1079657
ChlorobenzeneD5 (ISTD)	2226191	Unknown	8.739	8.739	8.679	8.799	125393712	1079657

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Epichlorohydrin	1079657	242	222	200	27.5 - 189	121	111	ug/L	8.62	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1079657	CCV	20.1	20.0	ug/L	100	72.3 - 106	125393707
1,2-DCA-d4 (SURR)	1079657	LCS	19.9	20.0	ug/L	99.5	72.3 - 106	125393708
1,2-DCA-d4 (SURR)	1079657	LCS Dup	16.5	20.0	ug/L	82.5	72.3 - 106	125393709
1,2-DCA-d4 (SURR)	1079657	Blank	19.3	20.0	ug/L	96.5	72.3 - 106	125393710
Bromofluorobenzene (SURR)	1079657	CCV	21.9	20.0	ug/L	110	87.2 - 122	125393707
Bromofluorobenzene (SURR)	1079657	LCS	22.4	20.0	ug/L	112	87.2 - 122	125393708
Bromofluorobenzene (SURR)	1079657	LCS Dup	21.8	20.0	ug/L	109	87.2 - 122	125393709
Bromofluorobenzene (SURR)	1079657	Blank	23.1	20.0	ug/L	116	87.2 - 122	125393710
Dibromofluoromethane (SURR)	1079657	CCV	19.2	20.0	ug/L	96.0	46.7 - 114	125393707
Dibromofluoromethane (SURR)	1079657	LCS	18.9	20.0	ug/L	94.5	46.7 - 114	125393708
Dibromofluoromethane (SURR)	1079657	LCS Dup	18.3	20.0	ug/L	91.5	46.7 - 114	125393709



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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dibromofluoromethane (SURR)	1079657	Blank	18.1	20.0	ug/L	90.5	46.7 - 114	125393710
TolueneD8 (SURR)	1079657	CCV	24.2	20.0	ug/L	121 *	57.4 - 112	125393707
TolueneD8 (SURR)	1079657	LCS	22.7	20.0	ug/L	114 *	57.4 - 112	125393708
TolueneD8 (SURR)	1079657	LCS Dup	23.1	20.0	ug/L	116 *	57.4 - 112	125393709
TolueneD8 (SURR)	1079657	Blank	20.9	20.0	ug/L	104	57.4 - 112	125393710
1,2-DCA-d4 (SURR)	2226191	Unknown	20.1	20.0	ug/L	100	72.3 - 106	125393712
Bromofluorobenzene (SURR)	2226191	Unknown	20.6	20.0	ug/L	103	87.2 - 122	125393712
Dibromofluoromethane (SURR)	2226191	Unknown	18.8	20.0	ug/L	94.0	46.7 - 114	125393712
TolueneD8 (SURR)	2226191	Unknown	22.0	20.0	ug/L	110	57.4 - 112	125393712

Analytical Set

1080001

EPA 515.1 4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
2,4 Dichlorophenoxyacetic acid	1079539	0.341	0.0389	0.500	ug/L	125401013
2,4,5-TP (Silvex)	1079539	ND	0.0217	0.500	ug/L	125401013
Dalapon (dichloropropionic acid)	1079539	ND	0.197	2.00	ug/L	125401013
Dinoseb	1079539	0.105	0.0727	0.500	ug/L	125401013
Pentachlorophenol	1079539	0.0541	0.040	0.500	ug/L	125401013
Picloram	1079539	ND	0.0213	0.500	ug/L	125401013

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
2,4 Dichlorophenoxyacetic acid	50.2	50.0	ug/L	100	70.0 - 130	125401012
2,4 Dichlorophenoxyacetic acid	49.9	50.0	ug/L	99.7	70.0 - 130	125401026
2,4 Dichlorophenoxyacetic acid	44.1	50.0	ug/L	88.3	70.0 - 130	125401034
2,4 Dichlorophenoxyacetic acid	119	50.0	ug/L	238	70.0 - 130 *	125402204
2,4 Dichlorophenoxyacetic acid	123	50.0	ug/L	245	70.0 - 130 *	125402211
2,4,5-TP (Silvex)	50.9	50.0	ug/L	102	70.0 - 130	125401012
2,4,5-TP (Silvex)	40.4	50.0	ug/L	80.8	70.0 - 130	125401026
2,4,5-TP (Silvex)	45.7	50.0	ug/L	91.4	70.0 - 130	125401034
2,4,5-TP (Silvex)	55.3	50.0	ug/L	111	70.0 - 130	125402204
2,4,5-TP (Silvex)	62.0	50.0	ug/L	124	70.0 - 130	125402211
Dalapon (dichloropropionic acid)	54.2	50.0	ug/L	108	70.0 - 130	125401012
Dalapon (dichloropropionic acid)	55.8	50.0	ug/L	112	70.0 - 130	125401026
Dalapon (dichloropropionic acid)	49.0	50.0	ug/L	98.0	70.0 - 130	125401034
Dalapon (dichloropropionic acid)	69.7	50.0	ug/L	139	70.0 - 130 *	125402204
Dalapon (dichloropropionic acid)	89.5	50.0	ug/L	179	70.0 - 130 *	125402211
Dinoseb	51.8	50.0	ug/L	104	70.0 - 130	125401012
Dinoseb	40.2	50.0	ug/L	80.4	70.0 - 130	125401026
Dinoseb	43.8	50.0	ug/L	87.6	70.0 - 130	125401034
Dinoseb	41.1	50.0	ug/L	82.3	70.0 - 130	125402204
Dinoseb	43.0	50.0	ug/L	85.9	70.0 - 130	125402211
Pentachlorophenol	50.2	50.0	ug/L	100	70.0 - 130	125401012
Pentachlorophenol	50.8	50.0	ug/L	102	70.0 - 130	125401026
Pentachlorophenol	54.7	50.0	ug/L	109	70.0 - 130	125401034



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Parameter	Reading	Known	Units	Recover%	Limits%	File
Pentachlorophenol	52.9	50.0	ug/L	106	70.0 - 130	125402204
Pentachlorophenol	59.6	50.0	ug/L	119	70.0 - 130	125402211
Picloram	48.1	50.0	ug/L	96.1	70.0 - 130	125401012
Picloram	53.4	50.0	ug/L	107	70.0 - 130	125401026
Picloram	58.1	50.0	ug/L	116	70.0 - 130	125401034
Picloram	51.2	50.0	ug/L	102	70.0 - 130	125402204
Picloram	57.0	50.0	ug/L	114	70.0 - 130	125402211

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
2,4-Dichlorophenoxyacetic acid	1079539	0.733	0.828	1.00	10.4 - 212	73.3	82.8	ug/L	12.2	30.0
2,4,5-TP (Silvex)	1079539	0.964	0.997	1.00	8.62 - 229	96.4	99.7	ug/L	3.37	30.0
Dalapon (dichloropropionic acid)	1079539	0.611	0.295	1.00	0.100 - 196	61.1	29.5	ug/L	69.8 *	30.0
Dinoseb	1079539	0.0967	0.570	1.00	0.100 - 203	9.67	57.0	ug/L	142 *	30.0
Pentachlorophenol	1079539	1.13	1.18	1.00	1.09 - 209	113	118	ug/L	4.33	30.0
Picloram	1079539	1.13	0.993	1.00	0.100 - 211	113	99.3	ug/L	12.9	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid	1079539	Blank	100	100	ug/L	100	70.0 - 130	125401013
2,4-Dichlorophenylacetic Acid	1079539	LCS	83.9	100	ug/L	83.9	70.0 - 130	125401014
2,4-Dichlorophenylacetic Acid	1079539	LCS Dup	107	100	ug/L	107	70.0 - 130	125401015
2,4-Dichlorophenylacetic Acid	2226191	Unknown	0.568	0.982	ug/L	57.8 *	70.0 - 130	125401027
2,4-Dichlorophenylacetic Acid	2226191	Unknown	0.146	0.982	ug/L	14.9 *	70.0 - 130	125402209

Analytical Set

1080360

EPA 524.2 4.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1080360	174	0	0.0	0 - 2.00	125409131
BFB Mass 174	1080360	95.0	19512	80.7	50.0 - 100	125409131
BFB Mass 175	1080360	174	1533	7.9	5.00 - 9.00	125409131
BFB Mass 176	1080360	174	19401	99.4	95.0 - 101	125409131
BFB Mass 177	1080360	176	1335	6.9	5.00 - 9.00	125409131
BFB Mass 50	1080360	95.0	3902	16.1	15.0 - 40.0	125409131
BFB Mass 75	1080360	95.0	10922	45.2	30.0 - 80.0	125409131
BFB Mass 95	1080360	95.0	24184	100.0	100 - 100	125409131
BFB Mass 96	1080360	95.0	1595	6.6	5.00 - 9.00	125409131

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,1,1-Trichloroethane	1080360	ND	0.400	1.00	ug/L	125409135
1,1,2-Trichloroethane	1080360	ND	0.600	1.00	ug/L	125409135
1,1-Dichloroethylene	1080360	ND	0.749	1.00	ug/L	125409135
1,2,4-Trichlorobenzene	1080360	ND	0.988	1.00	ug/L	125409135
1,2-Dichloroethane	1080360	ND	0.345	1.00	ug/L	125409135
1,2-Dichloropropane	1080360	ND	0.463	1.00	ug/L	125409135



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<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Benzene	1080360	ND	0.373	1.00	ug/L	125409135
Bromodichloromethane	1080360	ND	0.256	1.00	ug/L	125409135
Bromoform	1080360	ND	0.870	1.00	ug/L	125409135
Carbon Tetrachloride	1080360	ND	0.641	1.00	ug/L	125409135
Chlorobenzene	1080360	ND	0.428	1.00	ug/L	125409135
Chloroform	1080360	ND	0.415	1.00	ug/L	125409135
cis-1,2-Dichloroethylene	1080360	ND	0.349	1.00	ug/L	125409135
Dibromochloromethane	1080360	ND	0.597	1.00	ug/L	125409135
Dichloromethane	1080360	ND	0.906	1.00	ug/L	125409135
Ethylbenzene	1080360	ND	0.480	1.00	ug/L	125409135
m- and p-Xylene	1080360	ND	1.26	2.00	ug/L	125409135
o-Dichlorobenzene (1,2-DCB)	1080360	ND	0.921	1.00	ug/L	125409135
o-Xylene	1080360	ND	0.455	1.00	ug/L	125409135
p-Dichlorobenzene (1,4-DCB)	1080360	ND	0.706	1.00	ug/L	125409135
Styrene	1080360	ND	0.494	1.00	ug/L	125409135
Tetrachloroethylene	1080360	ND	0.818	1.00	ug/L	125409135
Toluene	1080360	ND	0.492	1.00	ug/L	125409135
trans-1,2-Dichloroethylene	1080360	ND	0.595	1.00	ug/L	125409135
Trichloroethylene	1080360	ND	0.327	1.00	ug/L	125409135
Vinyl chloride	1080360	ND	1.06	1.06	ug/L	125409135

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
1,1,1-Trichloroethane	23.2	20.0	ug/L	116	70.0 - 130	125409132
1,1,2-Trichloroethane	22.0	20.0	ug/L	110	70.0 - 130	125409132
1,1-Dichloroethylene	21.9	20.0	ug/L	110	70.0 - 130	125409132
1,2,4-Trichlorobenzene	22.2	20.0	ug/L	111	70.0 - 130	125409132
1,2-Dichloroethane	22.6	20.0	ug/L	113	70.0 - 130	125409132
1,2-Dichloropropane	21.8	20.0	ug/L	109	70.0 - 130	125409132
Benzene	21.7	20.0	ug/L	109	70.0 - 130	125409132
Bromodichloromethane	20.7	20.0	ug/L	103	70.0 - 130	125409132
Bromoform	17.8	20.0	ug/L	88.9	70.0 - 130	125409132
Carbon Tetrachloride	20.6	20.0	ug/L	103	70.0 - 130	125409132
Chlorobenzene	21.8	20.0	ug/L	109	70.0 - 130	125409132
Chloroform	22.1	20.0	ug/L	111	70.0 - 130	125409132
cis-1,2-Dichloroethylene	21.2	20.0	ug/L	106	70.0 - 130	125409132
Dibromochloromethane	19.0	20.0	ug/L	95.0	70.0 - 130	125409132
Dichloromethane	21.8	20.0	ug/L	109	70.0 - 130	125409132
Ethylbenzene	22.2	20.0	ug/L	111	70.0 - 130	125409132
m- and p-Xylene	45.0	40.0	ug/L	112	70.0 - 130	125409132
o-Dichlorobenzene (1,2-DCB)	21.8	20.0	ug/L	109	70.0 - 130	125409132
o-Xylene	22.0	20.0	ug/L	110	70.0 - 130	125409132
p-Dichlorobenzene (1,4-DCB)	22.0	20.0	ug/L	110	70.0 - 130	125409132
Styrene	21.9	20.0	ug/L	109	70.0 - 130	125409132
Tetrachloroethylene	22.5	20.0	ug/L	113	70.0 - 130	125409132



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Toluene	22.3	20.0	ug/L	112	70.0 - 130	125409132
trans-1,2-Dichloroethylene	21.6	20.0	ug/L	108	70.0 - 130	125409132
Trichloroethylene	22.1	20.0	ug/L	111	70.0 - 130	125409132
Vinyl chloride	20.1	20.0	ug/L	100	70.0 - 130	125409132

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1080360	CCV	151500	151500	75740	227200	125409132	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	LCS	153800	151500	75740	227200	125409133	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	LCS Dup	152200	151500	75740	227200	125409134	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	Blank	147500	151500	75740	227200	125409135	1080360
ChlorobenzeneD5 (ISTD)	1080360	CCV	271300	271300	135700	407000	125409132	1080360
ChlorobenzeneD5 (ISTD)	1080360	LCS	270500	271300	135700	407000	125409133	1080360
ChlorobenzeneD5 (ISTD)	1080360	LCS Dup	275900	271300	135700	407000	125409134	1080360
ChlorobenzeneD5 (ISTD)	1080360	Blank	274000	271300	135700	407000	125409135	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226191	Unknown	146300	151500	75740	227200	125409137	1080360
ChlorobenzeneD5 (ISTD)	2226191	Unknown	273100	271300	135700	407000	125409137	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226561	MS	145500	151500	75740	227200	125409140	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226561	MSD	147600	151500	75740	227200	125409141	1080360
ChlorobenzeneD5 (ISTD)	2226561	MS	261600	271300	135700	407000	125409140	1080360
ChlorobenzeneD5 (ISTD)	2226561	MSD	270000	271300	135700	407000	125409141	1080360

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1080360	CCV	15.47	15.47	15.41	15.53	125409132	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	LCS	15.48	15.47	15.41	15.53	125409133	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	LCS Dup	15.47	15.47	15.41	15.53	125409134	1080360
1,4-DichlorobenzeneD4 (ISTD)	1080360	Blank	15.48	15.47	15.41	15.53	125409135	1080360
ChlorobenzeneD5 (ISTD)	1080360	CCV	11.73	11.73	11.67	11.79	125409132	1080360
ChlorobenzeneD5 (ISTD)	1080360	LCS	11.74	11.73	11.67	11.79	125409133	1080360
ChlorobenzeneD5 (ISTD)	1080360	LCS Dup	11.74	11.73	11.67	11.79	125409134	1080360
ChlorobenzeneD5 (ISTD)	1080360	Blank	11.74	11.73	11.67	11.79	125409135	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226191	Unknown	15.48	15.47	15.41	15.53	125409137	1080360
ChlorobenzeneD5 (ISTD)	2226191	Unknown	11.74	11.73	11.67	11.79	125409137	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226561	MS	15.48	15.47	15.41	15.53	125409140	1080360
1,4-DichlorobenzeneD4 (ISTD)	2226561	MSD	15.48	15.47	15.41	15.53	125409141	1080360
ChlorobenzeneD5 (ISTD)	2226561	MS	11.74	11.73	11.67	11.79	125409140	1080360
ChlorobenzeneD5 (ISTD)	2226561	MSD	11.74	11.73	11.67	11.79	125409141	1080360

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1080360	20.5	21.0	20.0	70.0 - 130	102	105	ug/L	2.90	30.0
1,1,2-Trichloroethane	1080360	20.7	22.6	20.0	70.0 - 130	104	113	ug/L	8.29	30.0
1,1-Dichloroethylene	1080360	18.1	17.3	20.0	70.0 - 130	90.5	86.5	ug/L	4.52	30.0
1,2,4-Trichlorobenzene	1080360	22.0	25.3	20.0	70.0 - 130	110	126	ug/L	13.6	30.0
1,2-Dichloroethane	1080360	20.7	21.6	20.0	70.0 - 130	104	108	ug/L	3.77	30.0



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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2-Dichloropropane	1080360	20.5	22.8	20.0	70.0 - 130	102	114	ug/L	11.1	30.0
Benzene	1080360	21.6	22.8	20.0	70.0 - 130	108	114	ug/L	5.41	30.0
Bromodichloromethane	1080360	20.3	20.7	20.0	70.0 - 130	102	104	ug/L	1.94	30.0
Bromoform	1080360	16.7	18.4	20.0	70.0 - 130	83.5	92.0	ug/L	9.69	30.0
Carbon Tetrachloride	1080360	18.8	18.4	20.0	70.0 - 130	94.0	92.0	ug/L	2.15	30.0
Chlorobenzene	1080360	22.4	23.7	20.0	70.0 - 130	112	118	ug/L	5.22	30.0
Chloroform	1080360	21.2	22.4	20.0	70.0 - 130	106	112	ug/L	5.50	30.0
cis-1,2-Dichloroethylene	1080360	20.2	22.0	20.0	70.0 - 130	101	110	ug/L	8.53	30.0
Dibromochloromethane	1080360	17.7	18.5	20.0	70.0 - 130	88.5	92.5	ug/L	4.42	30.0
Dichloromethane	1080360	19.8	21.1	20.0	70.0 - 130	99.0	106	ug/L	6.83	30.0
Ethylbenzene	1080360	22.6	24.3	20.0	70.0 - 130	113	122	ug/L	7.66	30.0
m- and p-Xylene	1080360	46.2	47.0	40.0	70.0 - 130	116	118	ug/L	1.71	30.0
o-Dichlorobenzene (1,2-DCB)	1080360	22.2	25.4	20.0	70.0 - 130	111	127	ug/L	13.4	30.0
o-Xylene	1080360	23.3	24.6	20.0	70.0 - 130	116	123	ug/L	5.86	30.0
p-Dichlorobenzene (1,4-DCB)	1080360	22.6	24.4	20.0	70.0 - 130	113	122	ug/L	7.66	30.0
Styrene	1080360	22.1	23.7	20.0	70.0 - 130	110	118	ug/L	7.02	30.0
Tetrachloroethylene	1080360	20.8	20.9	20.0	70.0 - 130	104	104	ug/L	0	30.0
Toluene	1080360	22.6	23.2	20.0	70.0 - 130	113	116	ug/L	2.62	30.0
trans-1,2-Dichloroethylene	1080360	17.1	17.2	20.0	70.0 - 130	85.5	86.0	ug/L	0.583	30.0
Trichloroethylene	1080360	21.0	21.1	20.0	70.0 - 130	105	106	ug/L	0.948	30.0
Vinyl chloride	1080360	16.9	17.3	20.0	70.0 - 130	84.5	86.5	ug/L	2.34	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2226561	16.6	17.0	ND	20.0	0.100 - 125	83.0	85.0	ug/L	2.38	30.0
1,1,2-Trichloroethane	2226561	17.8	16.8	ND	20.0	0.100 - 169	89.0	84.0	ug/L	5.78	30.0
1,1-Dichloroethylene	2226561	15.9	15.3	ND	20.0	0.100 - 112	79.5	76.5	ug/L	3.85	30.0
1,2,4-Trichlorobenzene	2226561	17.3	17.6	ND	20.0	0.916 - 131	86.5	88.0	ug/L	1.72	30.0
1,2-Dichloroethane	2226561	17.3	17.2	ND	20.0	0.100 - 162	86.5	86.0	ug/L	0.580	30.0
1,2-Dichloropropane	2226561	17.1	17.0	ND	20.0	0.100 - 158	85.5	85.0	ug/L	0.587	30.0
Benzene	2226561	18.8	18.3	ND	20.0	0.100 - 127	94.0	91.5	ug/L	2.70	30.0
Bromodichloromethane	2226561	15.1	14.3	ND	20.0	0.423 - 149	75.5	71.5	ug/L	5.44	30.0
Bromoform	2226561	12.7	12.2	ND	20.0	16.3 - 137	63.5	61.0	ug/L	4.02	30.0
Carbon Tetrachloride	2226561	15.3	14.8	ND	20.0	0.100 - 112	76.5	74.0	ug/L	3.32	30.0
Chlorobenzene	2226561	18.6	18.7	ND	20.0	0.153 - 134	93.0	93.5	ug/L	0.536	30.0
Chloroform	2226561	17.7	17.3	ND	20.0	3.11 - 145	88.5	86.5	ug/L	2.29	30.0
cis-1,2-Dichloroethylene	2226561	16.9	16.4	ND	20.0	11.7 - 130	84.5	82.0	ug/L	3.00	30.0
Dibromochloromethane	2226561	13.6	12.4	ND	20.0	0.100 - 144	68.0	62.0	ug/L	9.23	30.0
Dichloromethane	2226561	16.8	16.8	ND	20.0	0.100 - 153	84.0	84.0	ug/L	0	30.0
Ethylbenzene	2226561	19.6	19.0	ND	20.0	0.100 - 129	98.0	95.0	ug/L	3.11	30.0
m- and p-Xylene	2226561	38.9	37.9	ND	40.0	2.71 - 128	97.2	94.8	ug/L	2.60	30.0
o-Dichlorobenzene (1,2-DCB)	2226561	18.2	18.6	ND	20.0	0.100 - 135	91.0	93.0	ug/L	2.17	30.0
o-Xylene	2226561	19.1	18.9	ND	20.0	1.85 - 131	95.5	94.5	ug/L	1.05	30.0
p-Dichlorobenzene (1,4-DCB)	2226561	18.6	19.0	ND	20.0	0.100 - 135	93.0	95.0	ug/L	2.13	30.0
Styrene	2226561	14.1	13.8	ND	20.0	8.04 - 128	70.5	69.0	ug/L	2.15	30.0



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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Tetrachloroethylene	2226561	18.2	17.5	ND	20.0	1.57 - 120	91.0	87.5	ug/L	3.92	30.0
Toluene	2226561	19.1	18.6	ND	20.0	0.100 - 151	95.5	93.0	ug/L	2.65	30.0
trans-1,2-Dichloroethylene	2226561	14.7	14.9	ND	20.0	0.100 - 110	73.5	74.5	ug/L	1.35	30.0
Trichloroethylene	2226561	17.6	17.4	ND	20.0	0.100 - 154	88.0	87.0	ug/L	1.14	30.0
Vinyl chloride	2226561	16.1	16.4	ND	20.0	0.100 - 114	80.5	82.0	ug/L	1.85	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1080360	CCV	21.2	20.0	ug/L	106	70.0 - 130	125409132
1,2-DCA-d4 (SURR)	1080360	LCS	21.6	20.0	ug/L	108	70.0 - 130	125409133
1,2-DCA-d4 (SURR)	1080360	LCS Dup	20.7	20.0	ug/L	104	70.0 - 130	125409134
1,2-DCA-d4 (SURR)	1080360	Blank	21.0	20.0	ug/L	105	70.0 - 130	125409135
Bromofluorobenzene (SURR)	1080360	CCV	19.6	20.0	ug/L	98.0	70.0 - 130	125409132
Bromofluorobenzene (SURR)	1080360	LCS	19.5	20.0	ug/L	97.5	70.0 - 130	125409133
Bromofluorobenzene (SURR)	1080360	LCS Dup	19.3	20.0	ug/L	96.5	70.0 - 130	125409134
Bromofluorobenzene (SURR)	1080360	Blank	19.3	20.0	ug/L	96.5	70.0 - 130	125409135
Dibromofluoromethane (SURR)	1080360	CCV	20.5	20.0	ug/L	102	70.0 - 130	125409132
Dibromofluoromethane (SURR)	1080360	LCS	21.0	20.0	ug/L	105	70.0 - 130	125409133
Dibromofluoromethane (SURR)	1080360	LCS Dup	20.3	20.0	ug/L	102	70.0 - 130	125409134
Dibromofluoromethane (SURR)	1080360	Blank	19.4	20.0	ug/L	97.0	70.0 - 130	125409135
TolueneD8 (SURR)	1080360	CCV	20.3	20.0	ug/L	102	70.0 - 130	125409132
TolueneD8 (SURR)	1080360	LCS	20.6	20.0	ug/L	103	70.0 - 130	125409133
TolueneD8 (SURR)	1080360	LCS Dup	20.0	20.0	ug/L	100	70.0 - 130	125409134
TolueneD8 (SURR)	1080360	Blank	20.4	20.0	ug/L	102	70.0 - 130	125409135
1,2-DCA-d4 (SURR)	2226191	Unknown	21.6	20.0	ug/L	108	70.0 - 130	125409137
Bromofluorobenzene (SURR)	2226191	Unknown	19.4	20.0	ug/L	97.0	70.0 - 130	125409137
Dibromofluoromethane (SURR)	2226191	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	125409137
TolueneD8 (SURR)	2226191	Unknown	20.7	20.0	ug/L	104	70.0 - 130	125409137
1,2-DCA-d4 (SURR)	2226561	MS	21.4	20.0	ug/L	107	70.0 - 130	125409140
1,2-DCA-d4 (SURR)	2226561	MSD	21.1	20.0	ug/L	106	70.0 - 130	125409141
Bromofluorobenzene (SURR)	2226561	MS	19.5	20.0	ug/L	97.5	70.0 - 130	125409140
Bromofluorobenzene (SURR)	2226561	MSD	19.4	20.0	ug/L	97.0	70.0 - 130	125409141
Dibromofluoromethane (SURR)	2226561	MS	19.7	20.0	ug/L	98.5	70.0 - 130	125409140
Dibromofluoromethane (SURR)	2226561	MSD	19.4	20.0	ug/L	97.0	70.0 - 130	125409141
TolueneD8 (SURR)	2226561	MS	20.4	20.0	ug/L	102	70.0 - 130	125409140
TolueneD8 (SURR)	2226561	MSD	19.8	20.0	ug/L	99.0	70.0 - 130	125409141

Analytical Set

1081616

EPA 531.2

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbofuran	88.1	100	ug/L	88.1	70.0 - 130	125437200
Carbofuran	102	100	ug/L	102	70.0 - 130	125437209
Carbofuran	98.5	100	ug/L	98.5	70.0 - 130	125437214
Oxamyl	99.3	100	ug/L	99.3	70.0 - 130	125437200
Oxamyl	103	100	ug/L	103	70.0 - 130	125437209



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Parameter	Reading	Known	Units	Recover%	Limits%	File
Oxamyl	102	100	ug/L	102	70.0 - 130	125437214

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Carbofuran	2224410	117	101	8.72	100	30.0 - 130	108	92.3	ug/L	16.0	30.0
Oxamyl	2224410	117	52.7	10.6	100	30.0 - 130	106	42.1	ug/L	86.6 *	30.0

Analytical Set **1081903**

EPA 525.2 2

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Alachlor	1080305	ND	0.0237	0.100	ug/L	125443732
Atrazine	1080305	ND	0.0646	0.100	ug/L	125443732
Benzo(a)pyrene	1080305	ND	39.4	100	ug/L	125443732
Bis(2-ethylhexyl)adipate	1080305	ND	0.0921	0.100	ug/L	125443732
Bis(2-ethylhexyl)phthalate	1080305	0.140	0.0676	0.100	ug/L	125443732 *
Endrin	1080305	ND	0.0934	0.100	ug/L	125443732
gamma-BCH (Lindane)	1080305	ND	0.0217	0.100	ug/L	125443732
Heptachlor	1080305	ND	0.0394	0.100	ug/L	125443732
Heptachlor epoxide	1080305	ND	0.0974	0.100	ug/L	125443732
Hexachlorobenzene	1080305	ND	0.091	0.100	ug/L	125443732
Hexachlorocyclopentadiene	1080305	ND	0.0314	0.100	ug/L	125443732
Methoxychlor	1080305	ND	0.0345	0.100	ug/L	125443732
Simazine	1080305	ND	0.0883	0.100	ug/L	125443732

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Alachlor	1110	1000	ug/L	111	70.0 - 130	125443731
Alachlor	890	1000	ug/L	89.0	70.0 - 130	125443740
Atrazine	840	1000	ug/L	84.0	70.0 - 130	125443731
Atrazine	980	1000	ug/L	98.0	70.0 - 130	125443740
Benzo(a)pyrene	970	1000	ug/L	97.0	70.0 - 130	125443731
Benzo(a)pyrene	1020	1000	ug/L	102	70.0 - 130	125443740
Bis(2-ethylhexyl)adipate	890	1000	ug/L	89.0	70.0 - 130	125443731
Bis(2-ethylhexyl)adipate	1110	1000	ug/L	111	70.0 - 130	125443740
Bis(2-ethylhexyl)phthalate	790	1000	ug/L	79.0	70.0 - 130	125443731
Bis(2-ethylhexyl)phthalate	810	1000	ug/L	81.0	70.0 - 130	125443740
Endrin	1340	1000	ug/L	134	70.0 - 130	125443731 *
Endrin	900	1000	ug/L	90.0	70.0 - 130	125443740
gamma-BCH (Lindane)	930	1000	ug/L	93.0	70.0 - 130	125443731
gamma-BCH (Lindane)	920	1000	ug/L	92.0	70.0 - 130	125443740
Heptachlor	1130	1000	ug/L	113	70.0 - 130	125443731
Heptachlor	960	1000	ug/L	96.0	70.0 - 130	125443740
Heptachlor epoxide	1130	1000	ug/L	113	70.0 - 130	125443731
Heptachlor epoxide	950	1000	ug/L	95.0	70.0 - 130	125443740
Hexachlorobenzene	960	1000	ug/L	96.0	70.0 - 130	125443731



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexachlorobenzene	1110	1000	ug/L	111	70.0 - 130	125443740
Hexachlorocyclopentadiene	700	1000	ug/L	70.0	70.0 - 130	125443731
Hexachlorocyclopentadiene	1050	1000	ug/L	105	70.0 - 130	125443740
Methoxychlor	930	1000	ug/L	93.0	70.0 - 130	125443731
Methoxychlor	940	1000	ug/L	94.0	70.0 - 130	125443740
Simazine	890	1000	ug/L	89.0	70.0 - 130	125443731
Simazine	960	1000	ug/L	96.0	70.0 - 130	125443740

DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 127	618486	198	88603	57.9	40.0 - 60.0	125443730
DFTPP Mass 197	618486	198	401	0.3	0 - 1.00	125443730
DFTPP Mass 198	618486	198	153088	100.0	100 - 100	125443730
DFTPP Mass 199	618486	198	10197	6.7	5.00 - 9.00	125443730
DFTPP Mass 275	618486	198	35000	22.9	10.0 - 30.0	125443730
DFTPP Mass 365	618486	198	3734	2.4	1.00 - 100	125443730
DFTPP Mass 441	618486	443	14053	76.1	0.010 - 100	125443730
DFTPP Mass 442	618486	198	97027	63.4	40.0 - 100	125443730
DFTPP Mass 443	618486	442	18478	19.0	17.0 - 23.0	125443730
DFTPP Mass 51	618486	198	83516	54.6	30.0 - 60.0	125443730
DFTPP Mass 68	618486	69.0	1509	1.8	0 - 2.00	125443730
DFTPP Mass 69	618486	198	84014	54.9	0 - 100	125443730
DFTPP Mass 70	618486	69.0	528	0.6	0 - 2.00	125443730

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10	616780	CCV	1091000	1091000	763700	1418000	125443731	616780
Acenaphthene-d10	616780	CCV	650800	1091000	763700	1418000	*	616780
Anthracene-d10	616780	CCV	1913000	1913000	1339000	2486000	125443731	616780
Anthracene-d10	616780	CCV	985500	1913000	1339000	2486000	*	616780
Chrysene-d12	616780	CCV	1404000	1404000	982900	1825000	125443731	616780
Chrysene-d12	616780	CCV	616300	1404000	982900	1825000	*	616780
Perylene-d12	616780	CCV	795300	795300	556700	1034000	125443731	616780
Perylene-d12	616780	CCV	568900	795300	556700	1034000	125443740	616780
Acenaphthene-d10	2226191	MS	194600	1091000	763700	1418000	*	1080305
Acenaphthene-d10	2226191	MSD	281500	1091000	763700	1418000	*	1080305
Anthracene-d10	2226191	MS	332500	1913000	1339000	2486000	*	1080305
Anthracene-d10	2226191	MSD	480100	1913000	1339000	2486000	*	1080305
Chrysene-d12	2226191	MS	228500	1404000	982900	1825000	*	1080305
Chrysene-d12	2226191	MSD	175700	1404000	982900	1825000	*	1080305
Perylene-d12	2226191	MS	107800	795300	556700	1034000	*	1080305
Perylene-d12	2226191	MSD	104700	795300	556700	1034000	*	1080305

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Alachlor	1080305	2.34	2.44	2.50	70.0 - 130	93.6	97.6	ug/L	4.18	30.0



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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Atrazine	1080305	2.16	1.84	2.50	70.0 - 130	86.4	73.6	ug/L	16.0	30.0
Bis(2-ethylhexyl)adipate	1080305	1.25	1.23	2.50	70.0 - 130	50.0 *	49.2 *	ug/L	1.61	30.0
Bis(2-ethylhexyl)phthalate	1080305	1.18	1.49	2.50	70.0 - 130	47.2 *	59.6 *	ug/L	23.2	30.0
Endrin	1080305	1.39	2.40	2.50	70.0 - 130	55.6 *	96.0	ug/L	53.3 *	30.0
gamma-BCH (Lindane)	1080305	2.22	2.28	2.50	70.0 - 130	88.8	91.2	ug/L	2.67	30.0
Heptachlor	1080305	1.06	1.41	2.50	70.0 - 130	42.4 *	56.4 *	ug/L	28.3	30.0
Heptachlor epoxide	1080305	1.71	2.63	2.50	70.0 - 130	68.4 *	105	ug/L	42.2 *	30.0
Hexachlorobenzene	1080305	0.650	2.46	2.50	70.0 - 130	26.0 *	98.4	ug/L	116 *	30.0
Hexachlorocyclopentadiene	1080305	0.310	0.150	2.50	70.0 - 130	12.4 *	6.00 *	ug/L	69.6 *	30.0
Methoxychlor	1080305	0.980	1.76	2.50	70.0 - 130	39.2 *	70.4	ug/L	56.9 *	30.0
Simazine	1080305	1.41	0.830	2.50	70.0 - 130	56.4 *	33.2 *	ug/L	51.8 *	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Alachlor	2226191	2.44	2.57	ND	2.43	70.0 - 130	101	106	ug/L	5.19	30.0
Atrazine	2226191	1.15	1.98	ND	2.43	70.0 - 130	47.5 *	81.8	ug/L	53.0 *	30.0
Benzo(a)pyrene	2226191	1.66	0.954	ND	2.43	70.0 - 130	68.6 *	39.4 *	ug/L	54.0 *	30.0
Bis(2-ethylhexyl)adipate	2226191	1.13	1.22	ND	2.43	70.0 - 130	46.7 *	50.4 *	ug/L	7.66	30.0
Bis(2-ethylhexyl)phthalate	2226191	3.00	1.66	ND	2.43	70.0 - 130	124	68.6 *	ug/L	57.5 *	30.0
Endrin	2226191	1.69	1.43	ND	2.43	70.0 - 130	69.8 *	59.1 *	ug/L	16.7	30.0
gamma-BCH (Lindane)	2226191	2.18	2.10	ND	2.43	70.0 - 130	90.1	86.8	ug/L	3.74	30.0
Heptachlor	2226191	1.23	0.867	ND	2.43	70.0 - 130	50.8 *	35.8 *	ug/L	34.6 *	30.0
Heptachlor epoxide	2226191	2.21	1.61	ND	2.43	70.0 - 130	91.3	66.5 *	ug/L	31.4 *	30.0
Hexachlorobenzene	2226191	1.48	0.896	ND	2.43	70.0 - 130	61.2 *	37.0 *	ug/L	49.2 *	30.0
Hexachlorocyclopentadiene	2226191	0.290	0.175	ND	2.43	70.0 - 130	12.0 *	7.23 *	ug/L	49.5 *	30.0
Methoxychlor	2226191	1.45	1.05	ND	2.43	70.0 - 130	59.9 *	43.4 *	ug/L	32.0 *	30.0
Simazine	2226191	0.542	1.35	ND	2.43	70.0 - 130	22.4 *	55.8 *	ug/L	85.4 *	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,3-Dimethyl-2-nitrobenzene	616780	CCV	3710	5000	ug/L	74.2	50.0 - 150	125443731
1,3-Dimethyl-2-nitrobenzene	616780	CCV	4150	5000	ug/L	83.0	50.0 - 150	125443740
p-Terphenyl-d14	616780	CCV	5000	5000	ug/L	100	50.0 - 150	125443731
p-Terphenyl-d14	616780	CCV	5000	5000	ug/L	100	50.0 - 150	125443740
Triphenylphosphate	616780	CCV	4780	5000	ug/L	95.6	50.0 - 150	125443731
Triphenylphosphate	616780	CCV	4740	5000	ug/L	94.8	50.0 - 150	125443740
1,3-Dimethyl-2-nitrobenzene	1080305	Blank	2520	5000	ug/L	50.4	50.0 - 150	125443732
1,3-Dimethyl-2-nitrobenzene	1080305	LCS	2820	5000	ug/L	56.4	50.0 - 150	125443733
1,3-Dimethyl-2-nitrobenzene	1080305	LCS Dup	4620	5000	ug/L	92.4	50.0 - 150	125443734
p-Terphenyl-d14	1080305	Blank	5000	5000	ug/L	100	50.0 - 150	125443732
p-Terphenyl-d14	1080305	LCS	5000	5000	ug/L	100	50.0 - 150	125443733
p-Terphenyl-d14	1080305	LCS Dup	5000	5000	ug/L	100	50.0 - 150	125443734
Triphenylphosphate	1080305	Blank	5060	5000	ug/L	101	50.0 - 150	125443732
Triphenylphosphate	1080305	LCS	4520	5000	ug/L	90.4	50.0 - 150	125443733
Triphenylphosphate	1080305	LCS Dup	3840	5000	ug/L	76.8	50.0 - 150	125443734



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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,3-Dimethyl-2-nitrobenzene	2226191	MS	4.01	4.84	ug/L	82.9	50.0 - 150	125443737
1,3-Dimethyl-2-nitrobenzene	2226191	MSD	4.09	4.87	ug/L	84.0	50.0 - 150	125443738
p-Terphenyl-d14	2226191	MS	4.84	4.84	ug/L	100	50.0 - 150	125443737
p-Terphenyl-d14	2226191	MSD	4.87	4.87	ug/L	100	50.0 - 150	125443738
Triphenylphosphate	2226191	MS	4.64	4.84	ug/L	95.9	50.0 - 150	125443737
Triphenylphosphate	2226191	MSD	7.92	4.87	ug/L	163 *	50.0 - 150	125443738

Analytical Set **1079590**

SM 2510 B-2011

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Lab Spec. Conductance at 25 C	0.725	0.730	umhos/cm	99.3	70.0 - 130	125392155

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Lab Spec. Conductance at 25 C	1079590	0.983			umhos/cm	125392152

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Lab Spec. Conductance at 25 C	2226175	12800	12800	umhos/cm	0	20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Lab Spec. Conductance at 25 C	13100	12900	umhos/cm	102	90.0 - 110	125392156

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Lab Spec. Conductance at 25 C	1079590	1410	1410	umhos/cm	100	90.0 - 110	125392153
Lab Spec. Conductance at 25 C	1079590	100	100	umhos/cm	100	90.0 - 110	125392154
Lab Spec. Conductance at 25 C	1079590	1420	1410	umhos/cm	101	90.0 - 110	125392167

Analytical Set **1079591**

SM 4500-H+ B-2011

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Laboratory pH	2225264	8.50	8.40	SU	1.18	20.0
Laboratory pH	2226175	7.50	7.40	SU	1.34	20.0

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Laboratory pH	1079591	7.00	7.00	SU	100	90.0 - 110	125392376
Laboratory pH	1079591	4.00	4.00	SU	100	90.0 - 110	125392377
Laboratory pH	1079591	10.0	10.0	SU	100	90.0 - 110	125392378
Laboratory pH	1079591	6.00	6.00	SU	100	90.0 - 110	125392379
Laboratory pH	1079591	7.90	8.00	SU	98.8	90.0 - 110	125392380
Laboratory pH	1079591	6.00	6.00	SU	100	90.0 - 110	125392391
Laboratory pH	1079591	8.00	8.00	SU	100	90.0 - 110	125392392
Laboratory pH	1079591	6.00	6.00	SU	100	90.0 - 110	125392404



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<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Laboratory pH	1079591	8.00	8.00	SU	100	90.0 - 110	125392405

Analytical Set **1079659** SM 2130 B-2011

AWRL/LOQ C							
<u>Parameter</u>		<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity		0.330	0.300	NTU	110	70.0 - 130	125393945

Blank							
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>		<u>File</u>
Turbidity	1079659	ND	0.300	0.300	NTU		125393943

Duplicate							
<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>	
Turbidity	2226174	15.8	15.5	NTU	1.92	20.0	

Mat. Spike								
<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2226174	58.8	15.5	40.0	NTU	108	70.0 - 130	125393949

Standard							
<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1079659	9.23	10.0	NTU	92.3	90.0 - 110	125393944
Turbidity	1079659	96.3	100	NTU	96.3	90.0 - 110	125393946
Turbidity	1079659	9.22	10.0	NTU	92.2	90.0 - 110	125393955
Turbidity	1079659	9.14	10.0	NTU	91.4	90.0 - 110	125393958

Analytical Set **1080143** SM 2320 B-2011

Blank							
<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>		<u>File</u>
Total Alkalinity (as CaCO3)	1080143	ND	1.00	1.00	mg/L		125405149

CCV							
<u>Parameter</u>		<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)		27.4	25.0	mg/L	110	90.0 - 110	125405148
Total Alkalinity (as CaCO3)		24.9	25.0	mg/L	99.6	90.0 - 110	125405162
Total Alkalinity (as CaCO3)		27.4	25.0	mg/L	110	90.0 - 110	125405175

Duplicate							
<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>	
Total Alkalinity (as CaCO3)	2225671	331	350	mg/L	5.58	20.0	
Total Alkalinity (as CaCO3)	2225776	685	660	mg/L	3.72	20.0	

ICV							
<u>Parameter</u>		<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)		27.4	25.0	mg/L	110	90.0 - 110	125405147



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Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File	
Total Alkalinity (as CaCO3)	2225671	361	350	25.0	mg/L	44.0	70.0 - 130	125405152	*
Total Alkalinity (as CaCO3)	2225776	667	660	25.0	mg/L	28.0	70.0 - 130	125405165	*

Analytical Set **1080179** SM 5220 D-2011

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chemical Oxygen Demand	388	400	mg/L	97.0	90.0 - 110	125405670

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Chemical Oxygen Demand	2226176	30.3	33.2	mg/L	9.13	20.0
Chemical Oxygen Demand	2226195	ND	ND	mg/L		20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Chemical Oxygen Demand	1080179	190	200	mg/L	95.0	90.0 - 110	125405671

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Chemical Oxygen Demand	2226176	210	33.2	200	mg/L	88.4	80.0 - 120	125405674
Chemical Oxygen Demand	2226195	216	ND	200	mg/L	108	80.0 - 120	125405686

Analytical Set **1080196** SM 2120 B-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Color	1080196	ND	5.0	5.0	PtCo Units	125405905

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Color	2226175	25	25	PtCo Units	0	20

Analytical Set **1080645** SM 4500-P E-2011

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Phosphorus (as P), total	1080645	ND	0.010	0.010	mg/L	125413711

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Phosphorus (as P), total	0.323	0.300	mg/L	108	90.0 - 110	125413712
Phosphorus (as P), total	0.272	0.300	mg/L	90.7	90.0 - 110	125413727

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Phosphorus (as P), total	1080645	0.264	0.272	0.300	80.0 - 120	88.0	90.7	mg/L	2.99	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Phosphorus (as P), total	2226556	0.236	0.211	0.0705	0.150	70.0 - 130	110	93.7	mg/L	16.3	20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD -Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); ICV -Initial Calibration Verification; LDR - Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std; BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples added to analytical samples for QC purposes **ANSI/ASQC E4 1994 Refl#4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



1071179 CoC Print Group 001 of 001

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P-UP FEE \$ 0.00 TT
SUB: _____
ALL CLIENT COCs ON SINGLE PROJECT? YES NO



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CHAIN OF CUSTODY

SPACE X
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Brownsville, TX 78521

**SPAC-R
156**

Lab Number 2226191
PO Number Qily STARBASE PO -- invoices bt
Phone 956/543-6688

Water/EPA Primary RETENTION POND

Hand Delivered by Client to Region or LAB

Matrix: Drinking Water

Sample Collection Start

Date: 8-25-23 Time: 18:30

Sampler Printed Name: Jaime Salinas - SPL, Inc.

Sampler Affiliation: SPL

Sampler Signature: Jaime Salinas

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

On Site Testing

C1Ck Field Cl2 Check for CNa

Field Cl2 Check for CNa

ADDED 18 DROPS OF SODIUM ARSENITE 500 PPM.

Collected By JAS Date 8-25-23 Time 18:30 Analyzed By JAS Date 8-25-23 Time 18:35

Results POSITIVE Units mg/L Temp. 32.8 C Duplicate --- Units --- Temp. --- C

R1 1.6 R2 0.3 QC R1 --- QC R2 ---

S2Ck Field Sulfide Check for CNa

Field Sulfide Check for CNa

Collected By JAS Date 8-25-23 Time 18:30 Analyzed By JAS Date 8-25-23 Time 18:35

Results NEGATIVE Units --- Temp. --- C Duplicate --- Units --- Temp. --- C

R1 --- R2 --- QC R1 --- QC R2 ---

Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid



1071179 CoC Print Group 001 of 001

2600 Dudley Rd. Kilgore, Texas 75662
 R: PO Box 3275 Kilgore, TX 75663
 Office: 903-984-0551 * Fax: 903-984-5914



CHAIN OF CUSTODY

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SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521
 NELAC

SPAC-R
156

SEPI Epichlorohydrin Exp. EPA 524.2 4.1 (14.0 days)

3 HCl to pH <2 glass 40 mL vial (Zero Headspace)/3

NELAC SEPV EPA Primary DW List Volatiles EPA 524.2 4.1 (14.0 days)

0 Z -- No bottle required

SKL Sub Hold: PM Attn

TBLK Trip Blank Required

Trip Blank Required *N/A*

Collected By _____ Date _____ Time _____ Analyzed By _____ Date _____ Time _____

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NELAC	*AsM	Arsenic, Total	EPA 200.8 5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, Total	EPA 200.8 5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, Total	EPA 200.8 5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, Total	EPA 200.8 5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, Total	EPA 200.8 5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, Total	EPA 200.8 5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, Total	EPA 245.1 3 CAS:7439-97-6 (28.0 days)
NELAC	*PbM	Lead, Total	EPA 200.8 5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, Total	EPA 200.8 5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, Total	EPA 200.8 5.4 CAS:7782-49-2 (180 days)
NELAC	*TIM	Thallium, Total	EPA 200.8 5.4 CAS:7440-28-0 (180 days)
	301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
NELAC	747L	Mercury Liquid Metals Digestion	EPA 245.1 3 (28.0 days)

6 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

504X EDB/DBCP Extraction EPA 504.1 (14.0 days)



1071179 CoC Print Group 001 of 001

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NEIAC **Short Hold** M504 DW EDB and DBCPby GC/ECD EPA 504.1 1.1 (1.00 days)

4 Na2SO3 (50mg) Glass Liter (amber)

NEIAC **SEPs** EPA Primary DW ABN/Pest EPA 525.2 2 (14.0 days)

NEIAC M515 Drinking Water Herbicides EPA 515.1 4 (14.0 days)

2 Monochloroacetic acid buffer- 60 ml vial

IOCE DW-Oxamyl & Carbofuran Expansion EPA 531.2 (28.0 days)

1 Polyethylene 1/2 gal (White)

NEIAC IFIL Fluoride EPA 300.0 2.1 (28.0 days)

NEIAC **Short Hold** IN2W DW Nitrite-Nitrogen, Total EPA 300.0 2.1 (2.00 days)

NEIAC **Short Hold** IN3W DW Nitrate-Nitrogen Total EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)

z **Short Hold** TURB Turbidity SM 2130 B-2011 (2.00 days)

3 Ascorbic Acid - 60ml vial (Zero Headspace)

VDWX DW Volatiles Dechlorination Vial Must be used with EPA 524.2

DW Volatiles Dechlorination Vial

Collected By JAS Date 8-25-23 Time 18:30 Analyzed By JAS Date 8-25-23 Time 18:40

2 NaOH to pH >12 Polyethylene 250 mL/amber

NEIAC CNa Cyanide, total SM 4500-CN⁻ E-2016 (14.0 days)

NEIAC CN-A Cyanide - Available/Amenable SM 4500-CN⁻ G-2016 (14.0 days)

NEIAC CNCI Cyanide After Chlorination SM 4500-CN⁻ G-2016 (14.0 days)

Ambient Conditions/Comments



1071179 CoC Print Group 001 of 001

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SPACE X
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

SPAC-R
156

Date	Time	Relinquished		Received	
		Printed Name	Affiliation	Printed Name	Affiliation
8-28-23	17:30	Jalme Salinas	SPL, Inc.	LONE STAR FedEx	
		<i>Jalme Salinas</i>			
8/29/23	1030		LONE STAR FedEx	Rayshawn Thompson	SPL, Inc.
		<i>[Signature]</i>		<i>[Signature]</i>	
		<i>[Signature]</i>		<i>[Signature]</i>	
		<i>[Signature]</i>		<i>[Signature]</i>	

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAP, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP # 000323

Comments



1071179 CoC Print Group 001 of 001

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 Office: 903-984-0551 * Fax: 903-984-5914

P-UP FEE \$ 0.00 TT
 SUP:
 ALL CLIENT COCs ON SINGLE PROJECT? YES NO



CHAIN OF CUSTODY

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 1 Rocket Rd
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157

Lab Number 2220194
 PO Number Qty STARBASE PO invoices bt
 Phone 956/543-6688

Water/EPA Secondary RETENTION POND

Hand Delivered by Client to Region or LAB

Matrix: Drinking Water

Sample Collection Start

Date: 8-25-23 Time: 18:30

Sampler Printed Name: Johne Salinas - SPL, Inc.

Sampler Affiliation: SPL

Sampler Signature: Johne Salinas

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

1 Amber Glass Qt w/Teflon lined lid

Short Hold Col Color SM 2120 B-2011 (2.00 days)

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NHAC	*AgM	Silver, Total	EPA 200.8.5.4 CAS:7440-22-4 (180 days)
NHAC	*AlM	Aluminum, Total	EPA 200.8.5.4 CAS:7429-90-5 (180 days)
NHAC	*CaI	Calcium	EPA 200.7.4.4 CAS:7440-70-2 (180 days)
NHAC	*CuM	Copper, Total	EPA 200.8.5.4 CAS:7440-50-8 (180 days)
NHAC	*FeI	Iron, Total	EPA 200.7.4.4 CAS:7439-89-6 (180 days)
NHAC	*MnM	Manganese, Total	EPA 200.8.5.4 CAS:7439-96-5 (180 days)
NHAC	*NaI	Sodium	EPA 200.7.4.4 CAS:7440-23-5 (180 days)
NHAC	*ZnM	Zinc, Total	EPA 200.8.5.4 CAS:7440-66-6 (180 days)
NHAC	301L	Liquid Metals Digestion	EPA 200.2.2.8 (180 days)
NHAC	TH	Total Hardness (as CaCO3)	SM 2340 C-2011 (180 days)

2 Polyethylene 1/2 gal (White)

NHAC	ICIL	Chloride	EPA 300.0.2.1 (28.0 days)
NHAC	IFIL	Fluoride	EPA 300.0.2.1 (28.0 days)



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SPACE X
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 Brownsville, TX 78521

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NLLAC z NLLAC z NLLAC	IS4L Sulfate AIRT Total Alkalinity (as CaCO3) CoDW Corrosivity - Drinking Water CONL Lab Spec. Conductance at 25 C LSI Langelier Saturation Index @22C pHLL Laboratory pH TDS Total Dissolved Solids	EPA 300.0 2.1 (28.0 days) SM 2320 B-2011 (14.0 days) SM 2330 B-1993 (28.0 days) SM 2510 B-2011 (28.0 days) SM 2330 B-1993 (14.0 days) SM 4500-H+ B-2011 SM 2540 C-2015 (7.00 days)
-----------------------------------	--	--

Ambient Conditions/Comments

Date	Time	Relinquished	Received
		Printed Name: Jalme Salinas - SPL, Inc. Affiliation	Printed Name: Affiliation
8-28-23	17:30	Signature: <i>Jalme Salinas</i>	Signature: FedEx
8/24/23	1030	Printed Name: Affiliation	Printed Name: Rayshawn Thompson SPL, Inc. Affiliation
		Signature: FedEx	Signature: <i>[Signature]</i>
		Printed Name: Affiliation	Printed Name: Affiliation
		Signature:	Signature:
		Printed Name: Affiliation	Printed Name: Affiliation
		Signature:	Signature:

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No
 If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - AZLA, N - NLLAC, or z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP# 000323.

Comments



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P-UP FEE \$ 0.00 TT
 SUR
 ALL CLIENT CoCs ON SINGLE
 PROJECT? YES NO



Printed 08/23/2023 Page 1 of 2

CHAIN OF CUSTODY

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Lab Number 2220195
 PO Number Qty STARBASE PO - invoices bl
 Phone 956/543-6688

Water/Additional RETENTION FOND

Hand Delivered by Chem to Region or LAB

Matrix: Drinking Water

Sample Collection Start

Date: 8-25-23 Time: 18:30

Sampler Printed Name: Jaime Salinas - SPL, Inc.

Sampler Affiliation: SPL

Sampler Signature: Jaime Salinas

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

1 H2SO4 to pH <2 GIQt w/Tef-lined lid

NELAC HEM Oil and Grease (HEM) EPA 1664B (28.0 days)

0 Z -- No bottle required

NELAC NiT Nitrogen, Total Calc TKN+N2+N3 (28.0 days)

2 H2SO4 to pH <2 250 ml Polyethylene

NELAC INNL Nitrate-Nitrite Nitrogen EPA 300.0 2.1 (28.0 days)

NELAC COD Chemical Oxygen Demand SM 5220 D-2011 (28.0 days)

NELAC TKN Total Kjeldahl Nitrogen EPA 351.2 2 CAS:7727-37-9 (28.0 days)

NELAC TPWB Phosphorus (as P), total SM 4500-P E-2011 CAS:7723-14-0 (28.0 days)

1 Polyethylene 1/2 gal (White)

NELAC FFL Fluoride EPA 300.0 2.1 (28.0 days)

NELAC Short Hold BOD Biochemical Oxygen Demand (BOD5) SM 5210 B-2016 CAS:1026-3 (2.04 days)

NELAC TSS Total Suspended Solids SM 2540 D-2015 (7.00 days)

Ambient Conditions/Comments



1071179 CoC Print Group 001 of 001

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CHAIN OF CUSTODY

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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

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159

Date	Time	Relinquished		Received	
		Printed Name Affiliation	Signature	Printed Name Affiliation	Signature
8-28-23	17:30	Jalme Salinas - SPL, Inc.	<i>Jalme Salinas</i>	LONGORIA	<i>[Signature]</i>
			<i>[Signature]</i>	FedEx	<i>[Signature]</i>
8/29/23	1030		<i>[Signature]</i>	Rayshawn Thompson SPL, Inc.	<i>[Signature]</i>
			<i>[Signature]</i>		<i>[Signature]</i>
			<i>[Signature]</i>		<i>[Signature]</i>
			<i>[Signature]</i>		<i>[Signature]</i>

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - N1AC, or Z - not listed under scope of accreditation. Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). Ana-Lab personnel collect samples as specified by Ana-Lab SOP # 000323.

Comments



1
2
3
4

1071179 CoC Print Group 001 of 001

ORIGIN ID: HRLA (555) 555-5555
ANA LAB X-BV
2401 VILLAGE DR STE C
BROWNSVILLE, TX 77821
UNITED STATES US

SHIP DATE: 29AUG23
ACTWT: 57.50 LB
CRD: 6994257/SSFE2422
DIMS: 24x14x13 IN
BILL THIRD PARTY

Part # 156297-204-1000-00224

TO: LOGIN
SPL
2608 AUDLEY RD
KILGORE TX 75662

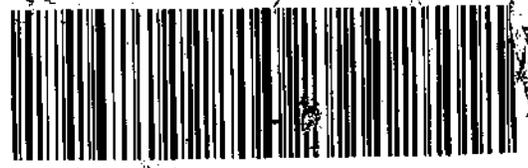
(555) 555-5555 REF: 0001

3 of 5
Date: 08/29/23
Temp: 0.2 C
Therm#: 8443 Corr Fact: 0.2 C



3 of 5
MPS# 7830 4200 4052
Mstr# 8171 3108 8087
0200
TOE - 29 AUG 10:30A
PRIORITY OVERNIGHT
AHS
75652
TX-US S

XA GGGA





SPAC-R

SPACEEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Printed 09/11/2023 13:16

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1068748_r03_03_ProjectResults	SPL Kilgore Project P:1068748 C:SPAC Project Results t:304 PO: 2260745- (Qtly STARBASE PO – invoices bt	15
1068748_r10_05_ProjectQC	SPL Kilgore Project P:1068748 C:SPAC Project Quality Control Groups	36
1068748_r99_09_CoC__1_of_1	SPL Kilgore CoC SPAC 1068748_1_of_1	10
Total Pages:		64

Email: Kilgore.projectmanager@spl-inc.com



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SAMPLE CROSS REFERENCE

Project
1068748

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Sample	Sample ID	Taken	Time	Received
2220405	Retention Water / EPA Primary	08/06/2023	22:00:00	08/08/2023

- Bottle 01 Polyethylene 1/2 gal
- Bottle 02 16 oz HNO3 Metals Plastic
- Bottle 03 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 04 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 05 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 06 Na2SO3 (50mg) Glass Liter (amber)
- Bottle 07 HAA5 .025 NH4Cl Glass Amber 250 - Min Headspace
- Bottle 08 EDA Preserved 250 Amber Polyethylene
- Bottle 09 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 10 NaOH to pH >12 Polyethylene 250 mL/amber
- Bottle 11 Na2S2O3 (0.008%) Polystyrene-100 mL Sterilized
- Bottle 12 Na2S2O3 (0.008%) Polystyrene-100 mL Sterilized
- Bottle 13 Monochloroacetic acid buffer- 60 ml vial
- Bottle 14 Monochloroacetic acid buffer- 60 ml vial
- Bottle 15 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 16 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 17 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 18 Glass Vial 40 mL (Zero Headspace) w/Teflon lined lid
- Bottle 19 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 20 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 21 HCl to pH <2 glass 40 mL vial w/Teflon lined lid (6)
- Bottle 22 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 23 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 24 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 25 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 26 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 27 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)
- Bottle 28 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1076251) Volume: 10.00000 mL <== Derived from 09 (5 ml)
- Bottle 29 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1076252) Volume: 10.00000 mL <== Derived from 09 (5 ml)
- Bottle 30 Prepared Bottle: ICP Preparation for Metals (Batch 1076319) Volume: 50.00000 mL <== Derived from 02 (50 ml)
- Bottle 31 Prepared Bottle: Mercury Preparation for Metals (Batch 1076699) Volume: 50.00000 mL <== Derived from 02 (25 ml)
- Bottle 32 Prepared Bottle: 2 mL Autosampler Vial (Batch 1076753) Volume: 5.00000 mL <== Derived from 03 (1027 ml)
- Bottle 33 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1076904) Volume: 10.00000 mL <== Derived from 10 (5 ml)
- Bottle 34 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1076904) Volume: 10.00000 mL <== Derived from 10 (5 ml)
- Bottle 35 Prepared Bottle: CN TRAACS Autosampler Vial (Batch 1076904) Volume: 10.00000 mL <== Derived from 10 (5 ml)
- Bottle 36 EDB/DBCP Extract (Batch 1077386) Volume: 2.00000 mL <== Derived from 25 (36.4 ml)
- Bottle 37 EDB/DBCP Extract (Batch 1077386) Volume: 2.00000 mL <== Derived from 26 (37.6 ml)
- Bottle 38 EDB/DBCP Extract (Batch 1077386) Volume: 2.00000 mL <== Derived from 27 (36.4 ml)
- Bottle 39 Prepared Bottle: 2 mL Autosampler Vial (Batch 1077817) Volume: 1.00000 mL <== Derived from 05 (1002 ml)
- Bottle 40 Prepared Bottle: 40 mL Vial Extract (Batch 1077851) Volume: 10.00000 mL <== Derived from 04 (1019 ml)

Email: Kilgore.projectmanager@spl-inc.com



SAMPLE CROSS REFERENCE

Project
1068748

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SPACEX
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Bottle 41 Prepared Bottle: HAA5 40 mL Glass Vial (Batch 1077918) Volume: 3.00000 mL <== Derived from 07 (40 ml)
 Bottle 42 Prepared Bottle: ICP Preparation for Metals (Batch 1078905) Volume: 50.00000 mL <== Derived from 02 (50 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 508 3.1	32	1076753	08/11/2023	1078015	08/15/2023
EPA 515.1 4	40	1077851	08/18/2023	1080001	09/01/2023
EPA 547	24	1076627	08/09/2023	1076627	08/09/2023
EPA 552.2 1	41	1077918	08/18/2023	1079663	08/30/2023
EPA 300.1 1	08	1076826	08/10/2023	1076826	08/10/2023
EPA 531.2 1	13	1077669	08/11/2023	1077669	08/11/2023
EPA 504.1 1.1	36	1077386	08/14/2023	1077397	08/14/2023
EPA 300.0 2.1	01	1076329	08/08/2023	1076329	08/08/2023
EPA 300.0 2.1	01	1076330	08/08/2023	1076330	08/08/2023
EPA 8316	24	1076969	08/11/2023	1076969	08/11/2023
EPA 524.2 4.1	20	1076350	08/08/2023	1076350	08/08/2023
EPA 525.2 2	39	1077817	08/18/2023	1079688	08/24/2023
EPA 524.2 4.1	15	1077727	08/17/2023	1077727	08/17/2023
EPA 200.8 5.4	30	1076319	08/09/2023	1077077	08/14/2023
EPA 200.8 5.4	42	1078905	08/25/2023	1079020	08/25/2023
EPA 245.1 3	31	1076699	08/11/2023	1076756	08/11/2023
EPA 200.8 5.4	30	1076319	08/09/2023	1076477	08/10/2023
SM 4500-CI F-2011	01	1077934	08/08/2023	1077934	08/08/2023
SM 4500-CN ⁻ G-2016			08/15/2023		08/15/2023
SM 4500-CN ⁻ G-2016	28	1076251	08/09/2023	1076853	08/11/2023
SM 4500-CN ⁻ E-2016	33	1076904	08/14/2023	1077106	08/15/2023
SM 4500-CN ⁻ E-2016	29	1076252	08/09/2023	1076854	08/11/2023
SM 4500-CI F-2011	01	1077936	08/08/2023	1077936	08/08/2023
SM 4500-CI F-2011	01	1077931	08/08/2023	1077931	08/08/2023
SM 4500-CI G-2011		1076060	08/06/2023	1076060	08/06/2023
SM 4500-CIO2-2000	01	1076767	08/11/2023	1076767	08/11/2023
SM 9223 B (Colilert-18)-2004	12	1076166	08/09/2023	1076166	08/09/2023
SimPlate®	11	1076358	08/11/2023	1076358	08/11/2023
SM 9223 B (Colilert-18)-2004	12	1076165	08/09/2023	1076165	08/09/2023
SM 2130 B-2011	01	1076081	08/08/2023	1076081	08/08/2023

Sample	Sample ID	Taken	Time	Received
2220406	Retention Water / EPA Secodar	08/06/2023	22:00:00	08/08/2023

Email: Kilgore.projectmanager@spl-inc.com



SAMPLE CROSS REFERENCE

Project
1068748

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SPACEX
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 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 Amber 32 Oz
- Bottle 03 Amber 32 Oz
- Bottle 04 HNO3 to pH <2 Polyethylene 500 mL for Metals
- Bottle 05 Prepared Bottle: ICP Preparation for Metals (Batch 1076319) Volume: 50.00000 mL <== Derived from 04 (50 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1076776	08/10/2023	1076776	08/10/2023
EPA 200.8 5.4	05	1076319	08/09/2023	1076477	08/10/2023
EPA 200.7 4.4	05	1076319	08/09/2023	1076421	08/09/2023
SM 2320 B-2011	01	1077665	08/17/2023	1077665	08/17/2023
SM 2510 B-2011	02	1076335	08/09/2023	1076335	08/09/2023
SM 2330 B-1993			08/17/2023		08/17/2023
SM 2120 B-2011	02	1076520	08/10/2023	1076520	08/10/2023
SM 5540 C-2000	01	1076382	08/08/2023	1076382	08/08/2023
SM 2150 B	03	1076381	08/08/2023	1076381	08/08/2023
SM 2540 C-2015	01	1076466	08/09/2023	1076466	08/09/2023
SM 2340 C-2011	02	1077014	08/14/2023	1077014	08/14/2023
SM 4500-H+ B-2011	02	1076380	08/09/2023	1076380	08/09/2023

Sample	Sample ID	Taken	Time	Received
2220407	<i>Retention Water / Additional</i>	08/06/2023	22:00:00	08/08/2023

- Bottle 01 Polyethylene 1/2 gal (White)
- Bottle 02 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
- Bottle 03 8 oz Plastic H2SO4 pH < 2
- Bottle 04 8 oz Plastic H2SO4 pH < 2
- Bottle 05 BOD Titration Beaker A (Batch 1075974) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 06 BOD Analytical Beaker B (Batch 1075974) Volume: 100.00000 mL <== Derived from 01 (100 ml)
- Bottle 07 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1076701) Volume: 20.00000 mL <== Derived from 04 (20 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1076329	08/08/2023	1076329	08/08/2023
SM 5210 B-2016	01	1075974	08/13/2023	1075974	08/13/2023
SM 5220 D-2011	04	1077192	08/15/2023	1077192	08/15/2023
Calc TKN+N2+N3	07	1076701	08/11/2023	1077889	08/21/2023
EPA 351.2 2	07	1076701	08/11/2023	1077889	08/18/2023
SM 4500-P E-2011	03	1077314	08/15/2023	1077314	08/15/2023
SM 2540 D-2015	01	1076616	08/09/2023	1076616	08/09/2023
EPA 1664B	02	1077154	08/15/2023	1077154	08/15/2023

Email: Kilgore.projectmanager@spl-inc.com



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Sample Results

2220405 Retention Water / EPA Primary

Received: 08/08/2023

Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/06/2023 22:00:00

Prepared: 1076062 08/06/2023 22:05:00 Analyzed 1076062 08/06/2023 22:05:00 JAS

Parameter	Results	Units	RL	Flags	CAS	Bottle
Field Cl2 Check for CNa	NEG					

Prepared: 1076063 08/06/2023 22:03:00 Analyzed 1076063 08/06/2023 22:03:00 JAS

Parameter	Results	Units	RL	Flags	CAS	Bottle
Field Sulfide Check for CNa	NEG	mg/L				

EPA 200.8 5.4 Prepared: 1076319 08/09/2023 11:00:00 Analyzed 1076477 08/10/2023 04:46:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
Antimony, Total	<0.003	mg/L	0.003		7440-36-0	30

EPA 200.8 5.4 Prepared: 1076319 08/09/2023 11:00:00 Analyzed 1077077 08/14/2023 14:31:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
Arsenic, Total	0.00194	mg/L	0.001		7440-38-2	30
Barium, Total	0.638	mg/L	0.001		7440-39-3	30
Beryllium, Total	<0.001	mg/L	0.001		7440-41-7	30
Cadmium, Total	<0.001	mg/L	0.001		7440-43-9	30
Copper, Total	0.0278	mg/L	0.001		7440-50-8	30
Lead, Total	0.00121	mg/L	0.001		7439-92-1	30
Selenium, Total	<0.0013	mg/L	0.0013		7782-49-2	30
Thallium, Total	<0.001	mg/L	0.001		7440-28-0	30

EPA 200.8 5.4 Prepared: 1078905 08/25/2023 10:00:00 Analyzed 1079020 08/25/2023 15:19:00 JC2

Parameter	Results	Units	RL	Flags	CAS	Bottle
Chromium, Total	0.00675	mg/L	0.001		7440-47-3	42

EPA 245.1 3 Prepared: 1076699 08/11/2023 07:15:00 Analyzed 1076756 08/11/2023 10:46:00 CAS

Parameter	Results	Units	RL	Flags	CAS	Bottle
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 Taken: 08/06/2023 22:00:00

EPA 245.1 3 Prepared: 1076699 08/11/2023 07:15:00 Analyzed 1076756 08/11/2023 10:46:00 CAS

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Mercury, Total	0.224	ug/L	0.200		7439-97-6	31

EPA 300.0 2.1 Prepared: 1076329 08/08/2023 21:30:00 Analyzed 1076329 08/08/2023 21:30:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Fluoride	0.720	mg/L	0.100			01

EPA 300.0 2.1 Prepared: 1076330 08/08/2023 21:30:00 Analyzed 1076330 08/08/2023 21:30:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC DW Nitrate-Nitrogen Total	0.291	mg/L	0.0226		14797-55-8	01
NELAC DW Nitrite-Nitrogen, Total	0.327	mg/L	0.0304			01

EPA 300.1 1 Prepared: 1076826 08/10/2023 20:29:00 Analyzed 1076826 08/10/2023 20:29:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Bromate	<5.000	ug/L	5.000			08
NELAC Chlorite	<10.0	ug/L	10.0			08

EPA 504.1 1.1 Prepared: 1077386 08/14/2023 12:55:00 Analyzed 1077397 08/14/2023 19:22:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z 1,2,3-Trichloropropane	<0.050	ug/L	0.050		96-18-4	36
NELAC 1,2-Dibromo-3-chloropropane DBCP	<0.050	ug/L	0.050		96-12-8	36
NELAC 1,2-Dibromoethane	<0.050	ug/L	0.050		109-93-4	36

EPA 508 3.1 Prepared: 1076753 08/11/2023 11:00:00 Analyzed 1078015 08/15/2023 17:23:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chlordane	<0.0974	ug/L	0.0974	D	57-74-9	32
NELAC Toxaphene	<0.0974	ug/L	0.0974		8001-35-2	32

EPA 515.1 4 Prepared: 1077851 08/18/2023 10:15:00 Analyzed 1080001 09/01/2023 09:52:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
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 Taken: 08/06/2023 22:00:00

EPA 515.1 4 Prepared: 1077851 08/18/2023 10:15:00 Analyzed 1080001 09/01/2023 09:52:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 2,4 Dichlorophenoxyacetic acid	<0.491	ug/L	0.491	XD	94-75-7	40
NELAC 2,4,5-TP (Silvex)	<0.491	ug/L	0.491		93-72-1	40
NELAC Dalapon (dichloropropionic acid)	<1.96	ug/L	1.96	XD	75-99-0	40
NELAC Dinoseb	<0.491	ug/L	0.491	D	88-85-7	40
NELAC Pentachlorophenol	<0.491	ug/L	0.491		87-86-5	40
NELAC Picloram	<0.491	ug/L	0.491	D	1918-02-1	40

EPA 524.2 4.1 Prepared: 1076350 08/08/2023 16:41:00 Analyzed 1076350 08/08/2023 16:41:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC 1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	20
NELAC 1,1,2-Trichloroethane	<1.00	ug/L	1.00		79-00-5	20
NELAC 1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	20
NELAC 1,2,4-Trichlorobenzene	<1.00	ug/L	1.00		120-82-1	20
NELAC 1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	20
NELAC 1,2-Dichloropropane	<1.00	ug/L	1.00		78-87-5	20
NELAC Benzene	<1.00	ug/L	1.00		71-43-2	20
z Bromodichloromethane	<1.00	ug/L	1.00		75-27-4	20
z Bromoform	<1.00	ug/L	1.00	X	75-25-2	20
NELAC Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	20
NELAC Chlorobenzene	<1.00	ug/L	1.00		108-90-7	20
z Chloroform	<1.00	ug/L	1.00		67-66-3	20
NELAC cis-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-59-2	20
z Dibromochloromethane	<1.00	ug/L	1.00		124-48-1	20
NELAC Dichloromethane	<1.00	ug/L	1.00		75-09-2	20
NELAC Ethylbenzene	<1.00	ug/L	1.00		100-41-4	20
NELAC m- and p-Xylene	<2.00	ug/L	2.00		ARC-mpXyl	20
NELAC o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	20
NELAC o-Xylene	<1.00	ug/L	1.00		95-47-6	20
NELAC p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	20
NELAC Styrene	<1.00	ug/L	1.00		100-42-5	20
NELAC Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	20
NELAC Toluene	<1.00	ug/L	1.00		108-88-3	20
NELAC trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	20
NELAC Trichloroethylene	<1.00	ug/L	1.00		79-01-6	20
NELAC Vinyl chloride	<1.06	ug/L	1.06		75-01-4	20



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EPA 524.2 4.1 Prepared: 1076350 08/10/2023 06:30:28 Calculated 1076350 08/10/2023 06:30:28 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Trihalomethanes (Total)	<0.001	mg/L	0.001	E		20
NELAC Xylenes, Total	<2.00	ug/L	2.00		1330-20-7	20

EPA 524.2 4.1 Prepared: 1077727 08/17/2023 15:40:00 Analyzed 1077727 08/17/2023 15:40:00 PMI

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Epichlorohydrin	<20.0	ug/L	20.0		106-89-8	15

EPA 525.2 2 Prepared: 1077817 08/18/2023 09:00:00 Analyzed 1079688 08/24/2023 16:28:00 DWL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Alachlor	<0.0998	ug/L	0.0998	X	15972-60-8	39
NELAC Atrazine	<0.0998	ug/L	0.0998		1912-24-9	39
NELAC Benzo(a)pyrene	<0.0998	ug/L	0.0998	XSD	50-32-8	39
NELAC Bis(2-ethylhexyl)adipate	<0.0998	ug/L	0.0998	BXSD	103-23-1	39
NELAC Bis(2-ethylhexyl)phthalate	4.77	ug/L	0.0998	XSD	117-81-7	39
z Endrin	<0.0998	ug/L	0.0998	XD	72-20-8	39
NELAC gamma-BCH (Lindane)	<0.0998	ug/L	0.0998		58-89-9	39
NELAC Heptachlor	<0.0998	ug/L	0.0998	XSD	76-44-8	39
NELAC Heptachlor epoxide	<0.0998	ug/L	0.0998	XD	1024-57-3	39
NELAC Hexachlorobenzene	<0.0998	ug/L	0.0998	XSD	118-74-1	39
NELAC Hexachlorocyclopentadiene	<0.0998	ug/L	0.0998	SD	77-47-4	39
NELAC Methoxychlor	<0.0998	ug/L	0.0998	SD	72-43-5	39
NELAC Simazine	<0.0998	ug/L	0.0998	X	122-34-9	39

EPA 531.2 1 Prepared: 1077669 08/11/2023 12:02:00 Analyzed 1077669 08/11/2023 12:02:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
Carbofuran	<10.0	ug/L	10.0		1563-66-2	13
Oxamyl	<10.0	ug/L	10.0		23135-22-0	13

EPA 547 Prepared: 1076627 08/09/2023 21:30:00 Analyzed 1076627 08/09/2023 21:30:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Glyphosate	<100	ug/L	100	X		24



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EPA 552.2 1 Prepared: 1077918 08/18/2023 14:23:50 Analyzed 1079663 08/30/2023 19:41:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Bromoacetic acid	<5.00	ug/L	5.00		79-08-3	41
NELAC Chloroacetic acid	<5.00	ug/L	5.00		79-11-8	41
NELAC Dibromoacetic acid	<5.00	ug/L	5.00		631-64-1	41
NELAC Dichloroacetic acid	<5.00	ug/L	5.00		79-43-6	41
NELAC Trichloroacetic acid	<5.00	ug/L	5.00		76-03-9	41

EPA 552.2 1 Prepared: 1077918 08/18/2023 14:23:50 Calculated 1079663 08/31/2023 15:00:14 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC HAA5	<0.005	mg/L	0.005			41

EPA 8316 Prepared: 1076969 08/11/2023 20:45:00 Analyzed 1076969 08/11/2023 20:45:00 BRU

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Acrylamide	<10.0	ug/L	10.0		79-06-1	24

SimPlate® Prepared: 1076358 08/11/2023 09:45:00 Analyzed 1076358 08/11/2023 09:45:00 MDM

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Heterotrophic Plate Count	>738	MPN/mL	0.200	H		11

SM 2130 B-2011 Prepared: 1076081 08/08/2023 12:25:00 Analyzed 1076081 08/08/2023 12:25:00 DS2

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Turbidity	65	NTU	0.300			01

SM 4500-CI F-2011 Prepared: 1077931 08/08/2023 13:15:00 Analyzed 1077931 08/08/2023 13:15:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cl2 Residual, Total(Lab) Titration	<0.100	mg/L	0.100			01

SM 4500-CI F-2011 Prepared: 1077934 08/08/2023 13:26:00 Analyzed 1077934 08/08/2023 13:26:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Cl2 Residual, Free(Lab) Titration	<0.100	mg/L	0.100			01



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 Taken: 08/06/2023 22:00:00

SM 4500-CI F-2011 Prepared: 1077936 08/08/2023 13:26:00 Analyzed 1077936 08/08/2023 13:26:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
Chloramines (Lab Titration)	<0.100	mg/L	0.100			01

SM 4500-CI G-2011 Prepared: 1076060 08/06/2023 22:05:00 Analyzed 1076060 08/06/2023 22:05:00 JAS

Parameter	Results	Units	RL	Flags	CAS	Bottle
Chlorine Residual (Onsite/TC)	0.0	mg/L	0.1			

SM 4500-CIO2-2000 Prepared: 1076767 08/11/2023 10:17:00 Analyzed 1076767 08/11/2023 10:17:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
Chlorine Dioxide	<0.100	mg/L	0.100			01

SM 4500-CN⁻ E-2016 Prepared: 1076252 08/09/2023 09:06:32 Analyzed 1076854 08/11/2023 07:30:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cyanide, total	0.042	mg/L	0.005			29

SM 4500-CN⁻ E-2016 Prepared: 1076904 08/14/2023 10:04:13 Analyzed 1077106 08/15/2023 08:30:00 REI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cyanide, total	0.0414	mg/L	0.005	P		33

SM 4500-CN⁻ G-2016 Prepared: 08/15/2023 16:01:08 Calculated 08/15/2023 16:01:08 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cyanide - Available/Amenable	0.037	mg/L	0.005			

SM 4500-CN⁻ G-2016 Prepared: 1076251 08/09/2023 09:05:32 Analyzed 1076853 08/11/2023 07:30:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
Cyanide After Chlorination	<0.005	mg/L	0.005			28

SM 9223 B (Colilert-18)-2004 Prepared: 1076165 08/09/2023 09:02:00 Analyzed 1076165 08/09/2023 09:02:00 CPI

Parameter	Results	Units	RL	Flags	CAS	Bottle
Total Coliform Colilert 18	POSITIVE	in 100 mL				12



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SM 9223 B (Colilert-18)-2004	Prepared:	1076165	08/09/2023	09:02:00	Analyzed	1076165	08/09/2023	09:02:00	CP1
Parameter	Results	Units	RL	Flags	CAS	Bottle			
SM 9223 B (Colilert-18)-2004	Prepared:	1076166	08/09/2023	09:02:00	Analyzed	1076166	08/09/2023	09:02:00	CP1
Parameter	Results	Units	RL	Flags	CAS	Bottle			
NELAC E-coli Colilert-18	POSITIVE	in 100 mL				12			

2220406 Retention Water / EPA Secondar

Received: 08/08/2023

Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/06/2023 22:00:00

EPA 200.7 4.4	Prepared:	1076319	08/09/2023	11:00:00	Analyzed	1076421	08/09/2023	17:01:00	CAS
Parameter	Results	Units	RL	Flags	CAS	Bottle			
z Calcium	66.8	mg/L	0.500		7440-70-2	05			
NELAC Iron, Total	7.93	mg/L	0.025		7439-89-6	05			
NELAC Sodium	143	mg/L	0.500		7440-23-5	05			

EPA 200.8 5.4	Prepared:	1076319	08/09/2023	11:00:00	Analyzed	1076477	08/10/2023	04:19:00	JC2
Parameter	Results	Units	RL	Flags	CAS	Bottle			
NELAC Aluminum, Total	0.833	mg/L	0.005		7429-90-5	05			
NELAC Copper, Total	0.0208	mg/L	0.001		7440-50-8	05			
NELAC Manganese, Total	0.163	mg/L	0.001		7439-96-5	05			
NELAC Silver, Total	<0.001	mg/L	0.001		7440-22-4	05			
NELAC Zinc, Total	0.383	mg/L	0.001		7440-66-6	05			

EPA 300.0 2.1	Prepared:	1076776	08/10/2023	19:42:00	Analyzed	1076776	08/10/2023	19:42:00	MDE
Parameter	Results	Units	RL	Flags	CAS	Bottle			
NELAC Chloride	147	mg/L	3.00			01			
NELAC Fluoride	<1.00	mg/L	1.00			01			
NELAC Sulfate	230	mg/L	3.00			01			



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SM 2150 B Prepared: 1076381 08/08/2023 14:18:00 Analyzed 1076381 08/08/2023 14:18:00 SRJ

Parameter	Results	Units	RL	Flags	CAS	Bottle
Odor	None Observed	TON	1.0			03

SM 2120 B-2011 Prepared: 1076520 08/10/2023 12:46:00 Analyzed 1076520 08/10/2023 12:46:00 DS2

Parameter	Results	Units	RL	Flags	CAS	Bottle
Color	10	PtCo Units	5.0	H		02

SM 2320 B-2011 Prepared: 1077665 08/17/2023 08:46:00 Analyzed 1077665 08/17/2023 08:46:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
Total Alkalinity (as CaCO3)	90.0	mg/L	1.00			01

SM 2330 B-1993 Prepared: 08/17/2023 15:01:03 Calculated 08/17/2023 15:01:03 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Langelier Saturation Index @22C	0.5581					

SM 2330 B-1993 Prepared: 08/17/2023 15:30:30 Calculated 08/17/2023 15:30:30 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
Corrosivity - Drinking Water	Scale Forming					

SM 2340 C-2011 Prepared: 1077014 08/14/2023 14:02:00 Analyzed 1077014 08/14/2023 14:02:00 DS2

Parameter	Results	Units	RL	Flags	CAS	Bottle
Total Hardness (as CaCO3)	250	mg/L	20			02

SM 2510 B-2011 Prepared: 1076335 08/09/2023 12:46:00 Analyzed 1076335 08/09/2023 12:46:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
Lab Spec. Conductance at 25 C	1190	umhos/cm				02



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 Taken: 08/06/2023 22:00:00

SM 2540 C-2015 Prepared: 1076466 08/09/2023 08:45:00 Analyzed 1076466 08/09/2023 08:45:00 MLP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Dissolved Solids	530	mg/L	50.0			01

SM 4500-H+ B-2011 Prepared: 1076380 08/09/2023 14:50:00 Analyzed 1076380 08/09/2023 14:50:00 ALH

Parameter	Results	Units	RL	Flags	CAS	Bottle
z Laboratory pH	8.4@17C	SU	2.00			02

SM 5540 C-2000 Prepared: 1076382 08/08/2023 15:26:00 Analyzed 1076382 08/08/2023 15:26:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
z MBAS (Surfactant/Foaming Agents)	<0.200	mg/L	0.200			01

2220407 Retention Water / Additional

Received: 08/08/2023

Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/06/2023 22:00:00

Calc TKN+N2+N3 Prepared: 1076701 08/11/2023 08:07:47 Calculated 1077889 08/21/2023 13:25:47 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrogen, Total	1.426	mg/L	0.050			07

EPA 1664B Prepared: 1077154 08/15/2023 13:30:00 Analyzed 1077154 08/15/2023 13:30:00 RRF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Oil and Grease (HEM)	<4.47	mg/L	4.47			02

EPA 300.0 2.1 Prepared: 1076329 08/08/2023 22:35:00 Analyzed 1076329 08/08/2023 22:35:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Fluoride	<1.00	mg/L	1.00			01
NELAC Nitrate-Nitrite Nitrogen	0.838	mg/L	0.530			01



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2220407 Retention Water / Additional

Received: 08/08/2023

Drinking Water Collected by: JAS SPL PO: STARBASE PO – invoices bt
 Taken: 08/06/2023 22:00:00

EPA 351.2 2 Prepared: 1076701 08/11/2023 08:07:47 Analyzed 1077889 08/18/2023 08:56:00 AMB

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Kjeldahl Nitrogen	0.588	mg/L	0.050		7727-37-9	07

SM 2540 D-2015 Prepared: 1076616 08/09/2023 12:50:00 Analyzed 1076616 08/09/2023 12:50:00 JK1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Suspended Solids	34.0	mg/L	5.00			01

SM 4500-P E-2011 Prepared: 1077314 08/15/2023 15:26:00 Analyzed 1077314 08/15/2023 15:26:00 SRJ

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Phosphorus (as P), total	0.0694	mg/L	0.010		7723-14-0	03

SM 5210 B-2016 Prepared: 1075974 08/08/2023 Analyzed 1075974 08/13/2023 11:56:01 JW1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Biochemical Oxygen Demand (BOD5)	4.39	mg/L	2.00		1026-3	01

SM 5220 D-2011 Prepared: 1077192 08/15/2023 08:52:00 Analyzed 1077192 08/15/2023 08:52:00 TTC

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Chemical Oxygen Demand	<20.0	mg/L	20.0			04

Sample Preparation

2220405 Retention Water / EPA Primary

Received: 08/08/2023

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Prepared: 08/08/2023 13:37:00 Analyzed 08/08/2023 13:37:00 CPI

Micro Lab Cl2 Check Negative



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2220405 Retention Water / EPA Primary

Received: 08/08/2023
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08/06/2023

	Prepared:	08/09/2023	12:24:44	Calculated	08/09/2023	12:24:44	CAL
Environmental Fee (per Project)	Verified						
SUB Shipped	Verified						
	Prepared: 1076061	08/06/2023	22:05:00	Analyzed 1076061	08/06/2023	22:05:00	JAS
Chlorine Residual Type	TOTAL		mg/L				
EPA 200.2 2.8	Prepared: 1076319	08/09/2023	11:00:00	Analyzed 1076319	08/09/2023	11:00:00	TES
Liquid Metals Digestion	50/50		ml				02
EPA 200.2 2.8	Prepared: 1078905	08/25/2023	10:00:00	Analyzed 1078905	08/25/2023	10:00:00	HLT
Liquid Metals Digestion	50/50		ml				02
EPA 245.1 3	Prepared: 1076699	08/11/2023	07:15:00	Analyzed 1076699	08/11/2023	07:15:00	ALB
Mercury Liquid Metals Digestion	50/25		ml				02
EPA 504.1	Prepared: 1077386	08/14/2023	12:55:00	Analyzed 1077386	08/14/2023	12:55:00	DWL
EDB/DBCP Extraction	2/36.41		ml				25
EPA 504.1 1.1	Prepared: 1077386	08/14/2023	12:55:00	Analyzed 1077397	08/14/2023	19:22:00	DWL
DW EDB and DBCPby GC/ECD	Entered						36
EPA 508 3.1	Prepared: 1076753	08/11/2023	11:00:00	Analyzed 1076753	08/11/2023	11:00:00	CRS



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EPA 508.3.1	Prepared: 1076753	08/11/2023	11:00:00	Analyzed 1076753	08/11/2023	11:00:00	CRS
Liq-Liq Extr. W/MTBE Chlordane a	5/1027	ml					03
EPA 508.3.1	Prepared: 1076753	08/11/2023	11:00:00	Analyzed 1078015	08/15/2023	17:23:00	BLF
DW Chlordane, Toxaphene Exp	Entered						32
EPA 515.1.4	Prepared: 1077851	08/18/2023	10:15:00	Analyzed 1077851	08/18/2023	10:15:00	CED
Herbicides Extraction/Derivative	10/1019	ml					04
EPA 515.1.4	Prepared: 1077851	08/18/2023	10:15:00	Analyzed 1080001	09/01/2023	09:52:00	BLF
Drinking Water Herbicides	Entered						40
EPA 524.2.4.1	Prepared: 1076350	08/08/2023	16:41:00	Analyzed 1076350	08/08/2023	16:41:00	PMI
EPA Primary DW List Volatiles	Entered						20
EPA 524.2.4.1	Prepared: 1077727	08/17/2023	15:40:00	Analyzed 1077727	08/17/2023	15:40:00	PMI
Epichlorohydrin Exp.	Entered						15
EPA 525.2.2	Prepared: 1077817	08/18/2023	09:00:00	Analyzed 1077817	08/18/2023	09:00:00	CRS
Solid Phase Extraction 525.2 SV	1/1002	ml					05
EPA 525.2.2	Prepared: 1077817	08/18/2023	09:00:00	Analyzed 1079688	08/24/2023	16:28:00	DWL
EPA Primary DW ABN/Pest	Entered						39



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EPA 531.2	Prepared: 1077669	08/11/2023	12:02:00	Analyzed 1077669	08/11/2023	12:02:00	BRU
DW-Oxamyl & Carbofuran Expansion	Entered						13
EPA 547	Prepared: 1076627	08/09/2023	21:30:00	Analyzed 1076627	08/09/2023	21:30:00	BRU
NELAC Glyphosate Expansion	Entered						24
EPA 552.2 1	Prepared: 1077918	08/18/2023	14:23:50	Analyzed 1077918	08/18/2023	14:23:50	NAZ
NELAC Haloacetic Acids Extraction	3/40		ml				07
EPA 552.2 1	Prepared: 1077918	08/18/2023	14:23:50	Analyzed 1079663	08/30/2023	19:41:00	BLF
NELAC Haloacetic Acids (HAA5)	Entered						41
EPA 8316	Prepared: 1076969	08/11/2023	20:45:00	Analyzed 1076969	08/11/2023	20:45:00	BRU
z Acrylamide Expansion	Entered					79-06-1	24
SimPlate®	Prepared: 1076355	08/09/2023	08:28:00	Analyzed 1076355	08/09/2023	08:28:00	MDM
NELAC HPC Start - SimPlate	STARTED					H	11
SM 4500-CN ⁻ C-2016	Prepared: 1076251	08/09/2023	09:05:32	Analyzed 1076251	08/09/2023	09:05:32	REI
NELAC CN Dist After Chlorination	10/5		ml				09
SM 4500-CN ⁻ C-2016	Prepared: 1076252	08/09/2023	09:06:32	Analyzed 1076252	08/09/2023	09:06:32	REI
NELAC Cyanide Distillation	10/5		ml				09



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08/06/2023

SM 4500-CN⁻C-2016 Prepared: 1076904 08/14/2023 10:04:13 Analyzed 1076904 08/14/2023 10:04:13 REI

NELAC **Cyanide Distillation** 10/5 ml 10

SM 9223 B (Colilert-18)-2004 Prepared: 1076164 08/08/2023 13:37:00 Analyzed 1076164 08/08/2023 13:37:00 CPI

NELAC **TC / E.coli Set Started** STARTED H 12

2220406 Retention Water / EPA Secondar

Received: 08/08/2023

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08/06/2023

EPA 200.2 2.8 Prepared: 1076319 08/09/2023 11:00:00 Analyzed 1076319 08/09/2023 11:00:00 TES

z **Liquid Metals Digestion** 50/50 ml 04

SM 2540 C-2011 Prepared: 1076233 08/09/2023 08:45:00 Analyzed 1076233 08/09/2023 08:45:00 MLP

NELAC **Total Dissolved Solids Started** Started

2220407 Retention Water / Additional

Received: 08/08/2023

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08/06/2023

EPA 351.2, Rev 2.0 Prepared: 1076701 08/11/2023 08:07:47 Analyzed 1076701 08/11/2023 08:07:47 REI

NELAC **TKN Block Digestion** 20/20 ml 04



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SM 2540 D-2011 Prepared: 1075024 08/09/2023 12:50:00 Analyzed 1075024 08/09/2023 12:50:00 JK1

NELAC **TSS Set Started** **Started**

SM 5210 B-2016 Prepared: 1075974 08/08/2023 Analyzed 1075974 08/08/2023 14:23:00 JW1

NELAC **BOD Set Started** **STARTED**

Qualifiers:

- B - Analyte detected in the associated method blank
- D - Duplicate RPD was higher than expected
- E - Estimated Value
- H - Sample started outside recommended holding time
- P - Spike recovery outside control limits due to matrix effects.
- X - Standard reads higher than desired.
- S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. - Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details

(N)ELAC - Covered in our NELAC scope of accreditation

z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.



Bill Peery, MS, VP Technical Services



QUALITY CONTROL



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Analytical Set **1076060**

SM 4500-CI G-2011

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chlorine Residual (Onsite/TC)	2220405	0.0	0.0	mg/L		20

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chlorine Residual (Onsite/TC)	1076060	0.210	0.220	mg/L	95.5	90 - 110	
Chlorine Residual (Onsite/TC)	1076060	0.890	0.930	mg/L	95.7	90 - 110	
Chlorine Residual (Onsite/TC)	1076060	1.62	1.66	mg/L	97.6	90 - 110	

Analytical Set **1077014**

SM 2340 C-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>	<u>File</u>
Total Hardness (as CaCO3)	1077014	ND	5.0	5.0	mg/L	125329831

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Hardness (as CaCO3)	2220403	460	460	mg/L	0	20

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Hardness (as CaCO3)	1077014	1000	1000	mg/L	100	80 - 120	125329832

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Hardness (as CaCO3)	2220403	500	460	40	mg/L	100	70 - 130	125329835

Analytical Set **1076165**

SM 9223 B (Colilert-18)-2004

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
P. aeruginosa	1076164	NEGATIVE	NEGATIVE	in 100 mL	-	-	125307565
Standard E. coli	1076164	POSITIVE	POSITIVE	in 100 mL	-	-	125307567
Standard K.varicola	1076164	POSITIVE	POSITIVE	in 100 mL	-	-	125307566

Analytical Set **1076166**

SM 9223 B (Colilert-18)-2004

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
P. aeruginosa	1076164	NEGATIVE	NEGATIVE	in 100 mL	-	-	125307613
Standard E. coli	1076164	POSITIVE	POSITIVE	in 100 mL	-	-	125307615
Standard K.varicola	1076164	NEGATIVE	NEGATIVE	in 100 mL	-	-	125307614

Analytical Set **1076358**

SimPlate®

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>SQL</u>	<u>Units</u>	<u>File</u>
Heterotrophic Plate Count	1076358	<0.2	0.200	0.200	MPN/mL	125311230



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Micro Dup

Parameter	Sample	Type	Result	Unknown	Unit	Range	Criterion
Heterotrophic Plate Count	2220402	Duplicate	>738	>738	MPN/mL		0.7825

Analytical Set

1075974

SM 5210 B-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Biochemical Oxygen Demand (BOD5)	1075974	0.04	0.200	0.500	mg/L	125303096

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Biochemical Oxygen Demand (BOD5)	2220176	Lab Error	Lab Error	mg/L		30.0
Biochemical Oxygen Demand (BOD5)	2220269	34.4	38.9	mg/L	12.3	30.0

Seed Drop

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Biochemical Oxygen Demand (BOD5)	1075974	0.823	0.200	0.500	mg/L	125303098

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Biochemical Oxygen Demand (BOD5)		210	198	mg/L	106	83.7 - 116	125303099

Analytical Set

1076853

SM 4500-CN⁻ G-2016

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Cyanide After Chlorination	1076251	ND	0.00119	0.0025	mg/L	125325059

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.527	0.500	mg/L	105	90.0 - 110	125325058
Cyanide After Chlorination	0.516	0.500	mg/L	103	90.0 - 110	125325066
Cyanide After Chlorination	0.532	0.500	mg/L	106	90.0 - 110	125325067
Cyanide After Chlorination	0.529	0.500	mg/L	106	90.0 - 110	125325068

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Cyanide After Chlorination	2220402	0.0294	0.0352	mg/L	18.0	20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Cyanide After Chlorination	0.202	0.200	mg/L	101	90.0 - 110	125325057

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Cyanide After Chlorination	1076251	0.204	0.203	0.200	90.0 - 110	102	102	mg/L	0.491	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Cyanide After Chlorination	2220402	0.385	0.0352	0.400	mg/L	87.4	90.0 - 110	125325064



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Unknown

Parameter

Cyanide After Chlorination

Analytical Set

1076854

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide, total	1076252	ND	0.00119	0.0025	mg/L	125325071

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.527	0.500	mg/L	105	90.0 - 110	125325070
Cyanide, total	0.516	0.500	mg/L	103	90.0 - 110	125325073
Cyanide, total	0.532	0.500	mg/L	106	90.0 - 110	125325082
Cyanide, total	0.529	0.500	mg/L	106	90.0 - 110	125325083

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	2220402	0.112	0.112	mg/L	0	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.202	0.200	mg/L	101	90.0 - 110	125325069

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	1076252	0.208	0.207	0.200	90.0 - 110	104	104	mg/L	0.482	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide, total	2220402	0.475	0.112	0.400	mg/L	90.8	90.0 - 110	125325077

Unknown

Parameter

Cyanide, total

Analytical Set

1077106

SM 4500-CN⁻ E-2016

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cyanide, total	1076904	0.0015	0.00119	0.0025	mg/L	125331861

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.537	0.500	mg/L	107	90.0 - 110	125331860
Cyanide, total	0.542	0.500	mg/L	108	90.0 - 110	125331870
Cyanide, total	0.547	0.500	mg/L	109	90.0 - 110	125331871
Cyanide, total	0.550	0.500	mg/L	110	90.0 - 110	125331872



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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	2220405	0.0386	0.0414	mg/L	7.00	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cyanide, total	0.217	0.200	mg/L	108	90.0 - 110	125331859

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Cyanide, total	1076904	0.217	0.216	0.200	90.0 - 110	108	108	mg/L	0.462	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Cyanide, total	2220405	0.494	0.0414	0.400	mg/L	113	90.0 - 110	125331866 *

Unknown

<u>Parameter</u>
Cyanide, total

Analytical Set 1077889

EPA 351.2 2

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Kjeldahl Nitrogen	1076701	ND	0.00712	0.050	mg/L	125351918

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.43	5.00	mg/L	109	90.0 - 110	125351905
Total Kjeldahl Nitrogen	5.46	5.00	mg/L	109	90.0 - 110	125351909
Total Kjeldahl Nitrogen	5.38	5.00	mg/L	108	90.0 - 110	125351917
Total Kjeldahl Nitrogen	5.35	5.00	mg/L	107	90.0 - 110	125351928
Total Kjeldahl Nitrogen	5.41	5.00	mg/L	108	90.0 - 110	125351935
Total Kjeldahl Nitrogen	5.28	5.00	mg/L	106	90.0 - 110	125351944
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	125351954
Total Kjeldahl Nitrogen	5.08	5.00	mg/L	102	90.0 - 110	125351961
Total Kjeldahl Nitrogen	5.44	5.00	mg/L	109	90.0 - 110	125351968

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	2221313	0.462	0.483	mg/L	4.44	20.0
Total Kjeldahl Nitrogen	2221314	0.485	0.412	mg/L	16.3	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Kjeldahl Nitrogen	5.49	5.00	mg/L	110	90.0 - 110	125351904

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Total Kjeldahl Nitrogen	1076701	4.87	5.10	5.00	90.0 - 110	97.4	102	mg/L	4.61	20.0



QUALITY CONTROL



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Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Kjeldahl Nitrogen	2221313	5.51	0.483	5.00	mg/L	101	80.0 - 120	125351923
Total Kjeldahl Nitrogen	2221314	5.52	0.412	5.00	mg/L	102	80.0 - 120	125351926

Analytical Set **1076062**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Field Cl2 Check for CNa	2220405	NEG	NEG			20

Analytical Set **1076063**

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Field Sulfide Check for CNa	2220405	NEG	NEG	mg/L		20

Analytical Set **1076466**

SM 2540 C-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1076466	ND	5.00	5.00	mg/L	125313131

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Dissolved Solids	1076466	-0.0002			grams	125313118

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Dissolved Solids	2220162	2220	2190	mg/L	1.36	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Total Dissolved Solids	1076466	202	200	mg/L	101	85.0 - 115	125313132

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Dissolved Solids		100	100	mg/L	100	90.0 - 110	125313119

Analytical Set **1076616**

SM 2540 D-2015

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1076616	ND	2	2	mg/L	125318988

ControlBlk

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Suspended Solids	1076616	0			grams	125318987

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Suspended Solids	2220404	367	370	mg/L	0.814	20.0



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Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Suspended Solids	2220513	33.5	34.0	mg/L	1.48	20.0
Total Suspended Solids	2220823	520	520	mg/L	0	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Suspended Solids	1076616	51.0	50.0	mg/L	102	90.0 - 110	125319021

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
Total Suspended Solids		94.0	100	mg/L	94.0	90.0 - 110	125319020

Analytical Set 1077154

EPA 1664B

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Oil and Grease (HEM)	1077154	ND	0.557	4.00	mg/L	125333020

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Oil and Grease (HEM)	1077154	38.6	37.9	40.0	78.0 - 114	96.5	94.8	mg/L	1.83	20.0

MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2220167	39.8	0	1.91	40.0	78.0 - 114	99.5		mg/L		20.0

Analytical Set 1076329

EPA 300.0 2.1

AWRL/MRL C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.115	0.100	mg/L	115	70.0 - 130	125310867
Nitrate-Nitrite Nitrogen	0.0588	0.053	mg/L	111	70.0 - 130	125310867

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Fluoride	1076329	ND	0.0112	0.100	mg/L	125310868
Nitrate-Nitrite Nitrogen	1076329	0.0151	0.0047	0.053	mg/L	125310868

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	10.1	10.0	mg/L	101	90.0 - 110	125310863
Fluoride	10.1	10.0	mg/L	101	90.0 - 110	125310879
Fluoride	10.1	10.0	mg/L	101	90.0 - 110	125310895
Nitrate-Nitrite Nitrogen	5.25	5.30	mg/L	99.1	90.0 - 110	125310863
Nitrate-Nitrite Nitrogen	5.24	5.30	mg/L	98.9	90.0 - 110	125310879
Nitrate-Nitrite Nitrogen	5.26	5.30	mg/L	99.2	90.0 - 110	125310895

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Fluoride	1076329	5.25	5.22	5.00	88.0 - 115	105	104	mg/L	0.573	20.0



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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nitrate-Nitrite Nitrogen	1076329	2.68	2.67	2.65	88.0 - 115	101	101	mg/L	0.374	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Fluoride	2218229	1030	1020	ND	1000	80.0 - 120	103	102	mg/L	0.976	20.0
Nitrate-Nitrite Nitrogen	2218229	542	541	ND	530	80.0 - 120	102	102	mg/L	0.185	20.0
Fluoride	2218703	100	101	ND	100	80.0 - 120	100	101	mg/L	0.995	20.0
Nitrate-Nitrite Nitrogen	2218703	54.6	54.2	ND	53.0	80.0 - 120	103	102	mg/L	0.735	20.0

Analytical Set **1076330**

EPA 300.0 2.1

AWRL/MRL C

Parameter	Reading	Known	Units	Recover%	Limits%	File
DW Nitrate-Nitrogen Total	0.0244	0.0226	mg/L	108	70.0 - 130	125310901
DW Nitrite-Nitrogen, Total	0.0345	0.0304	mg/L	113	70.0 - 130	125310901

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
DW Nitrate-Nitrogen Total	1076330	0.0151	0.00331	0.0226	mg/L	125310902
DW Nitrite-Nitrogen, Total	1076330	ND	0.00568	0.0304	mg/L	125310902

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
DW Nitrate-Nitrogen Total	2.21	2.26	mg/L	97.8	90.0 - 110	125310897
DW Nitrate-Nitrogen Total	2.20	2.26	mg/L	97.3	90.0 - 110	125310906
DW Nitrate-Nitrogen Total	2.21	2.26	mg/L	97.8	90.0 - 110	125310915
DW Nitrite-Nitrogen, Total	3.04	3.04	mg/L	100	90.0 - 110	125310897
DW Nitrite-Nitrogen, Total	3.04	3.04	mg/L	100	90.0 - 110	125310906
DW Nitrite-Nitrogen, Total	3.05	3.04	mg/L	100	90.0 - 110	125310915

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
DW Nitrate-Nitrogen Total	1076330	1.13	1.11	1.13	70.0 - 116	100	98.2	mg/L	1.79	30.0
DW Nitrite-Nitrogen, Total	1076330	1.55	1.56	1.52	70.0 - 115	102	103	mg/L	0.643	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
DW Nitrate-Nitrogen Total	2218229	232	233	ND	226	70.0 - 130	103	103	mg/L	0.430	30.0
DW Nitrite-Nitrogen, Total	2218229	310	308	ND	304	70.0 - 130	102	101	mg/L	0.647	30.0
DW Nitrate-Nitrogen Total	2218703	23.5	23.3	ND	22.6	70.0 - 130	104	103	mg/L	0.855	30.0
DW Nitrite-Nitrogen, Total	2218703	31.1	30.9	ND	30.4	70.0 - 130	102	102	mg/L	0.645	30.0

Unknown

Parameter
DW Nitrate-Nitrogen Total
DW Nitrate-Nitrogen Total
DW Nitrate-Nitrogen Total
DW Nitrite-Nitrogen, Total



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Analytical Set **1076776**

EPA 300.0 2.1

AWRL/MRL C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Fluoride	0.105	0.100	mg/L	105	70.0 - 130	125322962

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1076776	ND	0.0593	0.300	mg/L	125322961
Fluoride	1076776	ND	0.0112	0.100	mg/L	125322961
Sulfate	1076776	0.234	0.0605	0.300	mg/L	125322961

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.2	10.0	mg/L	102	90.0 - 110	125322957
Chloride	9.88	10.0	mg/L	98.8	90.0 - 110	125322973
Chloride	9.95	10.0	mg/L	99.5	90.0 - 110	125322989
Fluoride	10.2	10.0	mg/L	102	90.0 - 110	125322957
Fluoride	10.1	10.0	mg/L	101	90.0 - 110	125322973
Fluoride	10.2	10.0	mg/L	102	90.0 - 110	125322989
Sulfate	9.99	10.0	mg/L	99.9	90.0 - 110	125322957
Sulfate	9.65	10.0	mg/L	96.5	90.0 - 110	125322973
Sulfate	9.76	10.0	mg/L	97.6	90.0 - 110	125322989

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chloride	1076776	5.10	5.09	5.00	85.0 - 115	102	102	mg/L	0.196	20.0
Fluoride	1076776	5.18	5.19	5.00	88.0 - 115	104	104	mg/L	0.193	20.0
Sulfate	1076776	5.08	5.12	5.00	88.0 - 115	102	102	mg/L	0.784	20.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chloride	2220027	162	160	109	50.0	80.0 - 120	106	102	mg/L	3.85	20.0
Fluoride	2220027	49.4	49.9	ND	50.0	80.0 - 120	98.8	99.8	mg/L	1.01	20.0
Sulfate	2220027	135	135	83.8	50.0	80.0 - 120	102	102	mg/L	0	20.0
Chloride	2220941	313	314	103	200	80.0 - 120	105	106	mg/L	0.475	20.0
Fluoride	2220941	202	205	ND	200	80.0 - 120	101	102	mg/L	1.47	20.0
Sulfate	2220941	405	407	176	200	80.0 - 120	114	116	mg/L	0.870	20.0

Analytical Set **1076826**

EPA 300.1 1

AWRL/MRL C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Bromate	5.14	5.00	ug/L	103	75.0 - 125	125324205
Chlorite	5.33	5.00	ug/L	107	75.0 - 125	125324205

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Bromate	1076826	ND	0.615	5.00	ug/L	125324211
Chlorite	1076826	ND	1.03	5.00	ug/L	125324208



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Bromate	487	500	ug/L	97.4	85.0 - 115	125324204
Bromate	491	500	ug/L	98.2	85.0 - 115	125324224
Bromate	494	500	ug/L	98.8	85.0 - 115	125324237
Chlorite	506	500	ug/L	101	85.0 - 115	125324204
Chlorite	509	500	ug/L	102	85.0 - 115	125324224
Chlorite	512	500	ug/L	102	85.0 - 115	125324237

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bromate	1076826	104	102	100	85.0 - 115	104	102	ug/L	1.94	25.0
Chlorite	1076826	101	101	100	85.0 - 115	101	101	ug/L	0	25.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Bromate	2220222	213	214	ND	200	75.0 - 125	106	107	ug/L	0.468	20.0
Chlorite	2220222	753	754	545	200	75.0 - 125	104	104	ug/L	0.480	20.0
Bromate	2220402	48.5	48.3	ND	200	75.0 - 125	24.2 *	24.2 *	ug/L	0.413	20.0
Chlorite	2220402	184	182	ND	200	75.0 - 125	92.0	91.0	ug/L	1.09	20.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dichloroacetate (Surrogate)		Blank	1070	1000	ug/L	107	85.0 - 130	125324208
Dichloroacetate (Surrogate)		Blank	1050	1000	ug/L	105	85.0 - 130	125324211
Dichloroacetate (Surrogate)	2220222	Unknown	1070	1000	ug/L	107	85.0 - 130	125324225
Dichloroacetate (Surrogate)	2220402	Unknown	932	1000	ug/L	93.2	85.0 - 130	125324212
Dichloroacetate (Surrogate)	2220405	Unknown	1000	1000	ug/L	100	85.0 - 130	125324215

Analytical Set 1076421

EPA 200.7.4.4

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Calcium	1076319	ND	0.0156	0.500	mg/L	125312241
Iron, Total	1076319	ND	0.00379	0.025	mg/L	125312241
Sodium	1076319	ND	0.0139	0.500	mg/L	125312241

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Calcium	25.0	25.0	mg/L	100	90.0 - 110	125312239
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	125312240
Calcium	24.6	25.0	mg/L	98.4	90.0 - 110	125312250
Calcium	24.7	25.0	mg/L	98.8	90.0 - 110	125312260
Calcium	24.8	25.0	mg/L	99.2	90.0 - 110	125312267
Iron, Total	2.54	2.50	mg/L	102	90.0 - 110	125312239
Iron, Total	2.55	2.50	mg/L	102	90.0 - 110	125312240
Iron, Total	2.56	2.50	mg/L	102	90.0 - 110	125312250
Iron, Total	2.57	2.50	mg/L	103	90.0 - 110	125312260
Iron, Total	2.57	2.50	mg/L	103	90.0 - 110	125312267



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Sodium	24.2	25.0	mg/L	96.8	90.0 - 110	125312239
Sodium	23.8	25.0	mg/L	95.2	90.0 - 110	125312240
Sodium	23.7	25.0	mg/L	94.8	90.0 - 110	125312250
Sodium	23.8	25.0	mg/L	95.2	90.0 - 110	125312260
Sodium	23.6	25.0	mg/L	94.4	90.0 - 110	125312267

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	49.5	50.0	mg/L	99.0	95.0 - 105	125312233
Iron, Total	4.94	5.00	mg/L	98.8	95.0 - 105	125312233
Sodium	49.8	50.0	mg/L	99.6	95.0 - 105	125312233

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	25.1	25.0	mg/L	100	90.0 - 110	125312237
Iron, Total	2.55	2.50	mg/L	102	90.0 - 110	125312237
Sodium	24.2	25.0	mg/L	96.8	90.0 - 110	125312237

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	1076319	4.96	5.02	5.00	85.0 - 115	99.2	100	mg/L	1.20	25.0
Iron, Total	1076319	0.522	0.525	0.500	85.0 - 115	104	105	mg/L	0.573	25.0
Sodium	1076319	4.80	4.86	5.00	85.0 - 115	96.0	97.2	mg/L	1.24	25.0

LDR

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	96.8	100	mg/L	96.8	90.0 - 110	125312234
Iron, Total	9.73	10.0	mg/L	97.3	90.0 - 110	125312234
Sodium	106	100	mg/L	106	90.0 - 110	125312234
Sodium	413	400	mg/L	103	90.0 - 110	125312266

MRL Check

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Calcium	0.513	0.500	mg/L	103	25.0 - 175	125312238
Iron, Total	0.0325	0.050	mg/L	65.0	25.0 - 175	125312238
Sodium	0.502	0.500	mg/L	100	25.0 - 175	125312238

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Calcium	2220273	17.2	17.1	12.0	5.00	75.0 - 125	104	102	mg/L	1.94	25.0
Iron, Total	2220273	0.502	0.503	ND	0.500	75.0 - 125	100	101	mg/L	0.199	25.0
Sodium	2220273	36.7	36.5	31.7	5.00	75.0 - 125	100	96.0	mg/L	4.08	25.0
Calcium	2220283	15.4	15.5	10.4	5.00	75.0 - 125	100	102	mg/L	1.98	25.0
Iron, Total	2220283	0.502	0.503	ND	0.500	75.0 - 125	100	101	mg/L	0.199	25.0
Sodium	2220283	36.9	37.0	32.3	5.00	75.0 - 125	92.0	94.0	mg/L	2.15	25.0



QUALITY CONTROL



SPAC-R

SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

Project
1068748

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Unknown

Parameter

- Calcium
- Sodium
- Calcium
- Sodium
- Calcium
- Iron, Total
- Sodium

Analytical Set **1076477**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Aluminum, Total	1076319	ND	0.0039	0.005	mg/L	125315903
Antimony, Total	1076319	0.00156	0.000847	0.003	mg/L	125315903
Barium, Total	1076319	ND	0.00207	0.005	mg/L	125315903
Beryllium, Total	1076319	ND	0.000162	0.001	mg/L	125315903
Cadmium, Total	1076319	ND	0.00012	0.001	mg/L	125315903
Copper, Total	1076319	ND	0.000325	0.001	mg/L	125315903
Lead, Total	1076319	ND	0.000549	0.001	mg/L	125315903
Manganese, Total	1076319	ND	0.000168	0.001	mg/L	125315903
Silver, Total	1076319	ND	0.000276	0.001	mg/L	125315903
Thallium, Total	1076319	ND	0.000966	0.001	mg/L	125315903
Zinc, Total	1076319	ND	0.000844	0.001	mg/L	125315903

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Aluminum, Total	0.0512	0.05	mg/L	102	90.0 - 110	125315821
Aluminum, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125315829
Aluminum, Total	0.0507	0.05	mg/L	101	90.0 - 110	125315839
Aluminum, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125315843
Aluminum, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125315911
Aluminum, Total	0.0482	0.05	mg/L	96.4	90.0 - 110	125315922
Aluminum, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125315932
Aluminum, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125315943
Aluminum, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125315954
Aluminum, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125315963
Aluminum, Total	0.0508	0.05	mg/L	102	90.0 - 110	125315965
Antimony, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125315821
Antimony, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125315829
Antimony, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125315839
Antimony, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	125315843
Antimony, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125315849
Antimony, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	125315859
Antimony, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125315902
Antimony, Total	0.0471	0.05	mg/L	94.2	90.0 - 110	125315922
Antimony, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125315932



QUALITY CONTROL



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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Antimony, Total	0.048	0.05	mg/L	96.0	90.0 - 110	125315943
Antimony, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125315954
Antimony, Total	0.0501	0.05	mg/L	100	90.0 - 110	125315963
Antimony, Total	0.0467	0.05	mg/L	93.4	90.0 - 110	125315965
Copper, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125315821
Copper, Total	0.048	0.05	mg/L	96.0	90.0 - 110	125315829
Copper, Total	0.0504	0.05	mg/L	101	90.0 - 110	125315839
Copper, Total	0.0477	0.05	mg/L	95.4	90.0 - 110	125315849
Copper, Total	0.0466	0.05	mg/L	93.2	90.0 - 110	125315859
Copper, Total	0.047	0.05	mg/L	94.0	90.0 - 110	125315868
Copper, Total	0.0468	0.05	mg/L	93.6	90.0 - 110	125315902
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	125315911
Copper, Total	0.0454	0.05	mg/L	90.8	90.0 - 110	125315922
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	125315932
Copper, Total	0.0463	0.05	mg/L	92.6	90.0 - 110	125315943
Copper, Total	0.0457	0.05	mg/L	91.4	90.0 - 110	125315954
Copper, Total	0.0474	0.05	mg/L	94.8	90.0 - 110	125315963
Copper, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125315965
Manganese, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125315902
Manganese, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125315911
Manganese, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125315922
Manganese, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125315932
Manganese, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	125315943
Manganese, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125315954
Silver, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	125315821
Silver, Total	0.0497	0.05	mg/L	99.4	90.0 - 110	125315829
Silver, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	125315839
Silver, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	125315911
Silver, Total	0.0473	0.05	mg/L	94.6	90.0 - 110	125315922
Silver, Total	0.0493	0.05	mg/L	98.6	90.0 - 110	125315932
Silver, Total	0.0483	0.05	mg/L	96.6	90.0 - 110	125315943
Silver, Total	0.0481	0.05	mg/L	96.2	90.0 - 110	125315954
Silver, Total	0.0507	0.05	mg/L	101	90.0 - 110	125315963
Silver, Total	0.0488	0.05	mg/L	97.6	90.0 - 110	125315965
Zinc, Total	0.0515	0.05	mg/L	103	90.0 - 110	125315821
Zinc, Total	0.0503	0.05	mg/L	101	90.0 - 110	125315829
Zinc, Total	0.0503	0.05	mg/L	101	90.0 - 110	125315839
Zinc, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125315902
Zinc, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	125315911
Zinc, Total	0.0478	0.05	mg/L	95.6	90.0 - 110	125315922
Zinc, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125315932
Zinc, Total	0.0487	0.05	mg/L	97.4	90.0 - 110	125315943
Zinc, Total	0.0494	0.05	mg/L	98.8	90.0 - 110	125315954
Zinc, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125315963



QUALITY CONTROL



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Parameter	Reading	Known	Units	Recover%	Limits%	File
Aluminum, Total	0.052	0.05	mg/L	104	90.0 - 110	125315813
Antimony, Total	0.0505	0.05	mg/L	101	90.0 - 110	125315813
Copper, Total	0.0512	0.05	mg/L	102	90.0 - 110	125315813
Manganese, Total	0.0512	0.05	mg/L	102	90.0 - 110	125315813
Silver, Total	0.0498	0.05	mg/L	99.6	90.0 - 110	125315813
Zinc, Total	0.0524	0.05	mg/L	105	90.0 - 110	125315813

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Aluminum, Total	1076319	0.510	0.518	0.500	85.0 - 115	102	104	mg/L	1.56	20.0
Antimony, Total	1076319	0.481	0.491	0.500	85.0 - 115	96.2	98.2	mg/L	2.06	20.0
Barium, Total	1076319	0.511	0.517	0.500	85.0 - 115	102	103	mg/L	1.17	20.0
Beryllium, Total	1076319	0.196	0.198	0.200	85.0 - 115	98.0	99.0	mg/L	1.02	20.0
Cadmium, Total	1076319	0.259	0.261	0.250	85.0 - 115	104	104	mg/L	0.769	20.0
Copper, Total	1076319	0.502	0.512	0.500	85.0 - 115	100	102	mg/L	1.97	20.0
Lead, Total	1076319	0.519	0.523	0.500	85.0 - 115	104	105	mg/L	0.768	20.0
Manganese, Total	1076319	0.536	0.538	0.500	85.0 - 115	107	108	mg/L	0.372	20.0
Silver, Total	1076319	0.0985	0.0997	0.100	85.0 - 115	98.5	99.7	mg/L	1.21	20.0
Thallium, Total	1076319	0.531	0.541	0.500	85.0 - 115	106	108	mg/L	1.87	20.0
Zinc, Total	1076319	0.522	0.536	0.500	85.0 - 115	104	107	mg/L	2.65	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	0.00098	0.001	mg/L	98.0	25.0 - 175	125315814
Manganese, Total	0.000828	0.001	mg/L	82.8	25.0 - 175	125315814

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Aluminum, Total	2220273	0.735	0.735	0.217	0.500	70.0 - 130	104	104	mg/L	0	20.0
Antimony, Total	2220273	0.492	0.512	0.00187	0.500	70.0 - 130	98.0	102	mg/L	4.00	20.0
Barium, Total	2220273	0.706	0.715	0.208	0.500	70.0 - 130	99.6	101	mg/L	1.79	20.0
Beryllium, Total	2220273	0.189	0.192	ND	0.200	70.0 - 130	94.5	96.0	mg/L	1.57	20.0
Cadmium, Total	2220273	0.248	0.255	ND	0.250	70.0 - 130	99.2	102	mg/L	2.78	20.0
Copper, Total	2220273	0.599	0.610	0.120	0.500	70.0 - 130	95.8	98.0	mg/L	2.27	20.0
Lead, Total	2220273	0.494	0.501	ND	0.500	70.0 - 130	98.8	100	mg/L	1.41	20.0
Manganese, Total	2220273	0.572	0.582	0.0661	0.500	70.0 - 130	101	103	mg/L	1.96	20.0
Silver, Total	2220273	0.0948	0.0973	ND	0.100	70.0 - 130	94.8	97.3	mg/L	2.60	20.0
Thallium, Total	2220273	0.509	0.518	ND	0.500	70.0 - 130	102	104	mg/L	1.75	20.0
Zinc, Total	2220273	0.706	0.712	0.210	0.500	70.0 - 130	99.2	100	mg/L	1.20	20.0
Beryllium, Total	2220283	0.187	0.188	ND	0.200	70.0 - 130	93.5	94.0	mg/L	0.533	20.0
Copper, Total	2220283	0.484	0.487	0.00994	0.500	70.0 - 130	94.8	95.4	mg/L	0.631	20.0
Lead, Total	2220283	0.493	0.489	ND	0.500	70.0 - 130	98.6	97.8	mg/L	0.815	20.0
Manganese, Total	2220283	0.512	0.511	0.00296	0.500	70.0 - 130	102	102	mg/L	0.197	20.0

Analytical Set

1076756

EPA 245.1 3



QUALITY CONTROL



SPAC-R

SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

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Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Mercury, Total	1076699	ND	0.113	0.200	ug/L	125322539

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	5.21	5.000	ug/L	104	90.0 - 110	125322537
Mercury, Total	5.20	5.000	ug/L	104	90.0 - 110	125322538
Mercury, Total	5.03	5.000	ug/L	101	90.0 - 110	125322549
Mercury, Total	4.91	5.000	ug/L	98.2	90.0 - 110	125322555

ICL

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	20.9	20.00	ug/L	104	90.0 - 110	125322536

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Mercury, Total	5.21	5.000	ug/L	104	90.0 - 110	125322535

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	1076699	9.86	9.67	10.0	85.0 - 115	98.6	96.7	ug/L	1.95	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Mercury, Total	2220670	10.3	10.5	0.224	10.0	70.0 - 130	101	103	ug/L	1.97	20.0

Unknown

<u>Parameter</u>
Mercury, Total

Analytical Set **1077077**

EPA 200.8 5.4

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Arsenic, Total	1076319	ND	0.000184	0.001	mg/L	125331067
Barium, Total	1076319	ND	0.000635	0.001	mg/L	125331067
Beryllium, Total	1076319	ND	0.000139	0.001	mg/L	125331067
Cadmium, Total	1076319	ND	0.000067	0.001	mg/L	125331067
Copper, Total	1076319	ND	0.00155	0.00155	mg/L	125331067
Lead, Total	1076319	ND	0.000244	0.001	mg/L	125331067
Manganese, Total	1076319	ND	0.000118	0.001	mg/L	125331067
Selenium, Total	1076319	ND	0.0013	0.0013	mg/L	125331067
Thallium, Total	1076319	ND	0.000106	0.001	mg/L	125331067

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Arsenic, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331053
Arsenic, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331064
Arsenic, Total	0.0506	0.05	mg/L	101	90.0 - 110	125331070



QUALITY CONTROL



SPAC-R

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Arsenic, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125331079
Arsenic, Total	0.0519	0.05	mg/L	104	90.0 - 110	125331089
Arsenic, Total	0.0521	0.05	mg/L	104	90.0 - 110	125331099
Arsenic, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331107
Arsenic, Total	0.0519	0.05	mg/L	104	90.0 - 110	125331118
Arsenic, Total	0.0521	0.05	mg/L	104	90.0 - 110	125331139
Arsenic, Total	0.0508	0.05	mg/L	102	90.0 - 110	125331146
Arsenic, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331157
Arsenic, Total	0.0518	0.05	mg/L	104	90.0 - 110	125331168
Arsenic, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331178
Arsenic, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331189
Arsenic, Total	0.0518	0.05	mg/L	104	90.0 - 110	125331197
Barium, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331064
Barium, Total	0.0502	0.05	mg/L	100	90.0 - 110	125331070
Barium, Total	0.051	0.05	mg/L	102	90.0 - 110	125331079
Barium, Total	0.050	0.05	mg/L	100	90.0 - 110	125331089
Barium, Total	0.0501	0.05	mg/L	100	90.0 - 110	125331099
Barium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125331107
Barium, Total	0.0518	0.05	mg/L	104	90.0 - 110	125331118
Barium, Total	0.051	0.05	mg/L	102	90.0 - 110	125331128
Barium, Total	0.050	0.05	mg/L	100	90.0 - 110	125331139
Barium, Total	0.0511	0.05	mg/L	102	90.0 - 110	125331146
Beryllium, Total	0.0525	0.05	mg/L	105	90.0 - 110	125331070
Beryllium, Total	0.0521	0.05	mg/L	104	90.0 - 110	125331079
Beryllium, Total	0.0521	0.05	mg/L	104	90.0 - 110	125331089
Beryllium, Total	0.0528	0.05	mg/L	106	90.0 - 110	125331099
Beryllium, Total	0.0532	0.05	mg/L	106	90.0 - 110	125331107
Beryllium, Total	0.0541	0.05	mg/L	108	90.0 - 110	125331118
Beryllium, Total	0.0545	0.05	mg/L	109	90.0 - 110	125331128
Beryllium, Total	0.0533	0.05	mg/L	107	90.0 - 110	125331139
Beryllium, Total	0.0529	0.05	mg/L	106	90.0 - 110	125331146
Beryllium, Total	0.0528	0.05	mg/L	106	90.0 - 110	125331178
Beryllium, Total	0.0539	0.05	mg/L	108	90.0 - 110	125331189
Beryllium, Total	0.0538	0.05	mg/L	108	90.0 - 110	125331197
Cadmium, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331064
Cadmium, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331070
Cadmium, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331079
Cadmium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125331089
Cadmium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331099
Cadmium, Total	0.0502	0.05	mg/L	100	90.0 - 110	125331107
Cadmium, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331118
Cadmium, Total	0.0505	0.05	mg/L	101	90.0 - 110	125331139
Cadmium, Total	0.0505	0.05	mg/L	101	90.0 - 110	125331146
Cadmium, Total	0.0515	0.05	mg/L	103	90.0 - 110	125331157
Cadmium, Total	0.0513	0.05	mg/L	103	90.0 - 110	125331168



QUALITY CONTROL



SPAC-R

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<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Cadmium, Total	0.0501	0.05	mg/L	100	90.0 - 110	125331178
Cadmium, Total	0.0511	0.05	mg/L	102	90.0 - 110	125331189
Cadmium, Total	0.0506	0.05	mg/L	101	90.0 - 110	125331197
Cadmium, Total	0.0508	0.05	mg/L	102	90.0 - 110	125331205
Copper, Total	0.0517	0.05	mg/L	103	90.0 - 110	125331053
Copper, Total	0.0515	0.05	mg/L	103	90.0 - 110	125331070
Copper, Total	0.0517	0.05	mg/L	103	90.0 - 110	125331079
Copper, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125331089
Copper, Total	0.0506	0.05	mg/L	101	90.0 - 110	125331099
Copper, Total	0.0517	0.05	mg/L	103	90.0 - 110	125331107
Copper, Total	0.0525	0.05	mg/L	105	90.0 - 110	125331118
Copper, Total	0.0526	0.05	mg/L	105	90.0 - 110	125331128
Copper, Total	0.0519	0.05	mg/L	104	90.0 - 110	125331139
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	125331146
Copper, Total	0.0514	0.05	mg/L	103	90.0 - 110	125331157
Copper, Total	0.0515	0.05	mg/L	103	90.0 - 110	125331168
Copper, Total	0.051	0.05	mg/L	102	90.0 - 110	125331178
Copper, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331189
Copper, Total	0.0512	0.05	mg/L	102	90.0 - 110	125331197
Lead, Total	0.0512	0.05	mg/L	102	90.0 - 110	125331064
Lead, Total	0.0511	0.05	mg/L	102	90.0 - 110	125331070
Lead, Total	0.0508	0.05	mg/L	102	90.0 - 110	125331079
Lead, Total	0.0502	0.05	mg/L	100	90.0 - 110	125331089
Lead, Total	0.051	0.05	mg/L	102	90.0 - 110	125331099
Lead, Total	0.0505	0.05	mg/L	101	90.0 - 110	125331107
Lead, Total	0.0516	0.05	mg/L	103	90.0 - 110	125331118
Lead, Total	0.0505	0.05	mg/L	101	90.0 - 110	125331128
Lead, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331139
Lead, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331146
Lead, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331157
Lead, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331168
Lead, Total	0.0505	0.05	mg/L	101	90.0 - 110	125331178
Selenium, Total	0.051	0.05	mg/L	102	90.0 - 110	125331053
Selenium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125331064
Selenium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331070
Selenium, Total	0.0512	0.05	mg/L	102	90.0 - 110	125331079
Selenium, Total	0.0496	0.05	mg/L	99.2	90.0 - 110	125331089
Selenium, Total	0.0502	0.05	mg/L	100	90.0 - 110	125331099
Selenium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125331107
Selenium, Total	0.0489	0.05	mg/L	97.8	90.0 - 110	125331118
Selenium, Total	0.0544	0.05	mg/L	109	90.0 - 110	125331128
Selenium, Total	0.0525	0.05	mg/L	105	90.0 - 110	125331139
Selenium, Total	0.0523	0.05	mg/L	105	90.0 - 110	125331146
Selenium, Total	0.0486	0.05	mg/L	97.2	90.0 - 110	125331157
Selenium, Total	0.0516	0.05	mg/L	103	90.0 - 110	125331168



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Selenium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331178
Selenium, Total	0.0485	0.05	mg/L	97.0	90.0 - 110	125331189
Selenium, Total	0.0491	0.05	mg/L	98.2	90.0 - 110	125331197
Thallium, Total	0.0509	0.05	mg/L	102	90.0 - 110	125331070
Thallium, Total	0.0506	0.05	mg/L	101	90.0 - 110	125331079
Thallium, Total	0.0501	0.05	mg/L	100	90.0 - 110	125331089
Thallium, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331099
Thallium, Total	0.0502	0.05	mg/L	100	90.0 - 110	125331107
Thallium, Total	0.0515	0.05	mg/L	103	90.0 - 110	125331118
Thallium, Total	0.0503	0.05	mg/L	101	90.0 - 110	125331139
Thallium, Total	0.0501	0.05	mg/L	100	90.0 - 110	125331146
Thallium, Total	0.0504	0.05	mg/L	101	90.0 - 110	125331189
Thallium, Total	0.0495	0.05	mg/L	99.0	90.0 - 110	125331197

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Arsenic, Total	0.0507	0.05	mg/L	101	90.0 - 110	125331045
Barium, Total	0.0512	0.05	mg/L	102	90.0 - 110	125331045
Beryllium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125331045
Cadmium, Total	0.0512	0.05	mg/L	102	90.0 - 110	125331045
Copper, Total	0.0523	0.05	mg/L	105	90.0 - 110	125331045
Lead, Total	0.0522	0.05	mg/L	104	90.0 - 110	125331045
Selenium, Total	0.0492	0.05	mg/L	98.4	90.0 - 110	125331045
Thallium, Total	0.0517	0.05	mg/L	103	90.0 - 110	125331045

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Arsenic, Total	1076319	0.539	0.550	0.500	85.0 - 115	108	110	mg/L	2.02	20.0
Barium, Total	1076319	0.536	0.541	0.500	85.0 - 115	107	108	mg/L	0.929	20.0
Beryllium, Total	1076319	0.227	0.230	0.200	85.0 - 115	114	115	mg/L	1.31	20.0
Cadmium, Total	1076319	0.270	0.270	0.250	85.0 - 115	108	108	mg/L	0	20.0
Copper, Total	1076319	0.562	0.575	0.500	85.0 - 115	112	115	mg/L	2.29	20.0
Lead, Total	1076319	0.546	0.545	0.500	85.0 - 115	109	109	mg/L	0.183	20.0
Manganese, Total	1076319	0.535	0.537	0.500	85.0 - 115	107	107	mg/L	0.373	20.0
Selenium, Total	1076319	0.536	0.547	0.500	85.0 - 115	107	109	mg/L	2.03	20.0
Thallium, Total	1076319	0.545	0.558	0.500	85.0 - 115	109	112	mg/L	2.36	20.0

MRL Check

Parameter	Reading	Known	Units	Recover%	Limits%	File
Copper, Total	ND	0.001	mg/L	0	25.0 - 175	125331046
Lead, Total	0.000979	0.001	mg/L	97.9	25.0 - 175	125331046

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Arsenic, Total	2220273	0.550	0.546	0.000633	0.500	70.0 - 130	110	109	mg/L	0.731	20.0
Barium, Total	2220273	0.742	0.748	0.222	0.500	70.0 - 130	104	105	mg/L	1.15	20.0



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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Beryllium, Total	2220273	0.221	0.220	ND	0.200	70.0 - 130	110	110	mg/L	0.454	20.0
Cadmium, Total	2220273	0.263	0.262	ND	0.250	70.0 - 130	105	105	mg/L	0.381	20.0
Copper, Total	2220273	0.681	0.681	0.137	0.500	70.0 - 130	109	109	mg/L	0	20.0
Lead, Total	2220273	0.524	0.528	0.000407	0.500	70.0 - 130	105	106	mg/L	0.761	20.0
Manganese, Total	2220273	0.582	0.585	0.0695	0.500	70.0 - 130	102	103	mg/L	0.584	20.0
Selenium, Total	2220273	0.541	0.534	0.00185	0.500	70.0 - 130	108	106	mg/L	1.31	20.0
Thallium, Total	2220273	0.533	0.550	ND	0.500	70.0 - 130	107	110	mg/L	3.14	20.0

Analytical Set 1079020

EPA 200.8 5.4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chromium, Total	1078905	0.000508	0.000392	0.001	mg/L	125380661

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chromium, Total	0.0506	0.05	mg/L	101	90.0 - 110	125380660
Chromium, Total	0.0499	0.05	mg/L	99.8	90.0 - 110	125380668

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chromium, Total	0.0508	0.05	mg/L	102	90.0 - 110	125380652

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chromium, Total	1078905	0.519	0.516	0.500	85.0 - 115	104	103	mg/L	0.580	20.0

LDR

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chromium, Total	10.6	10	mg/L	106	90.0 - 110	125380657

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Chromium, Total	2220402	0.460	0.453	0.000825	0.500	70.0 - 130	91.8	90.4	mg/L	1.54	20.0

Analytical Set 1076350

EPA 524.2 4.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1076350	174	0	0.0	0 - 2.00	125311147
BFB Mass 174	1076350	95.0	18717	83.4	50.0 - 100	125311147
BFB Mass 175	1076350	174	1335	7.1	5.00 - 9.00	125311147
BFB Mass 176	1076350	174	18208	97.3	95.0 - 101	125311147
BFB Mass 177	1076350	176	1145	6.3	5.00 - 9.00	125311147
BFB Mass 50	1076350	95.0	3914	17.4	15.0 - 40.0	125311147
BFB Mass 75	1076350	95.0	10116	45.1	30.0 - 80.0	125311147
BFB Mass 95	1076350	95.0	22442	100.0	100 - 100	125311147
BFB Mass 96	1076350	95.0	1612	7.2	5.00 - 9.00	125311147



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<i>Parameter</i>	<i>PrepSet</i>	<i>Reading</i>	<i>MDL</i>	<i>MDL</i>	<i>Units</i>	<i>File</i>
1,1,1-Trichloroethane	1076350	ND	0.400	1.00	ug/L	125311151
1,1,2-Trichloroethane	1076350	ND	0.600	1.00	ug/L	125311151
1,1-Dichloroethylene	1076350	ND	0.749	1.00	ug/L	125311151
1,2,4-Trichlorobenzene	1076350	ND	0.988	1.00	ug/L	125311151
1,2-Dichloroethane	1076350	ND	0.345	1.00	ug/L	125311151
1,2-Dichloropropane	1076350	ND	0.463	1.00	ug/L	125311151
Benzene	1076350	ND	0.373	1.00	ug/L	125311151
Bromodichloromethane	1076350	ND	0.256	1.00	ug/L	125311151
Bromoform	1076350	ND	0.870	1.00	ug/L	125311151
Carbon Tetrachloride	1076350	ND	0.641	1.00	ug/L	125311151
Chlorobenzene	1076350	ND	0.428	1.00	ug/L	125311151
Chloroform	1076350	ND	0.415	1.00	ug/L	125311151
cis-1,2-Dichloroethylene	1076350	ND	0.349	1.00	ug/L	125311151
Dibromochloromethane	1076350	ND	0.597	1.00	ug/L	125311151
Dichloromethane	1076350	ND	0.906	1.00	ug/L	125311151
Ethylbenzene	1076350	ND	0.480	1.00	ug/L	125311151
m- and p-Xylene	1076350	ND	1.26	2.00	ug/L	125311151
o-Dichlorobenzene (1,2-DCB)	1076350	ND	0.921	1.00	ug/L	125311151
o-Xylene	1076350	ND	0.455	1.00	ug/L	125311151
p-Dichlorobenzene (1,4-DCB)	1076350	ND	0.706	1.00	ug/L	125311151
Styrene	1076350	ND	0.494	1.00	ug/L	125311151
Tetrachloroethylene	1076350	ND	0.818	1.00	ug/L	125311151
Toluene	1076350	ND	0.492	1.00	ug/L	125311151
trans-1,2-Dichloroethylene	1076350	ND	0.595	1.00	ug/L	125311151
Trichloroethylene	1076350	ND	0.327	1.00	ug/L	125311151
Vinyl chloride	1076350	ND	1.06	1.06	ug/L	125311151

CCV

<i>Parameter</i>	<i>Reading</i>	<i>Known</i>	<i>Units</i>	<i>Recover%</i>	<i>Limits%</i>	<i>File</i>
1,1,1-Trichloroethane	23.9	20.0	ug/L	119	70.0 - 130	125311148
1,1,2-Trichloroethane	16.8	20.0	ug/L	84.1	70.0 - 130	125311148
1,1-Dichloroethylene	18.1	20.0	ug/L	90.6	70.0 - 130	125311148
1,2,4-Trichlorobenzene	22.8	20.0	ug/L	114	70.0 - 130	125311148
1,2-Dichloroethane	19.5	20.0	ug/L	97.3	70.0 - 130	125311148
1,2-Dichloropropane	16.6	20.0	ug/L	83.2	70.0 - 130	125311148
Benzene	15.7	20.0	ug/L	78.6	70.0 - 130	125311148
Bromodichloromethane	19.6	20.0	ug/L	98.2	70.0 - 130	125311148
Bromoform	25.8	20.0	ug/L	129	70.0 - 130	125311148
Carbon Tetrachloride	24.8	20.0	ug/L	124	70.0 - 130	125311148
Chlorobenzene	18.4	20.0	ug/L	92.1	70.0 - 130	125311148
Chloroform	19.2	20.0	ug/L	96.2	70.0 - 130	125311148
cis-1,2-Dichloroethylene	17.4	20.0	ug/L	87.0	70.0 - 130	125311148
Dibromochloromethane	20.8	20.0	ug/L	104	70.0 - 130	125311148
Dichloromethane	16.3	20.0	ug/L	81.4	70.0 - 130	125311148
Ethylbenzene	17.6	20.0	ug/L	87.8	70.0 - 130	125311148



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Parameter	Reading	Known	Units	Recover%	Limits%	File
m- and p-Xylene	36.8	40.0	ug/L	92.0	70.0 - 130	125311148
o-Dichlorobenzene (1,2-DCB)	17.4	20.0	ug/L	87.0	70.0 - 130	125311148
o-Xylene	18.2	20.0	ug/L	91.0	70.0 - 130	125311148
p-Dichlorobenzene (1,4-DCB)	17.7	20.0	ug/L	88.6	70.0 - 130	125311148
Styrene	18.8	20.0	ug/L	94.2	70.0 - 130	125311148
Tetrachloroethylene	24.3	20.0	ug/L	121	70.0 - 130	125311148
Toluene	16.9	20.0	ug/L	84.5	70.0 - 130	125311148
trans-1,2-Dichloroethylene	17.7	20.0	ug/L	88.6	70.0 - 130	125311148
Trichloroethylene	18.1	20.0	ug/L	90.3	70.0 - 130	125311148
Vinyl chloride	20.0	20.0	ug/L	100	70.0 - 130	125311148

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1076350	CCV	140100	140100	70070	210200	125311148	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	LCS	142300	140100	70070	210200	125311149	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	LCS Dup	145200	140100	70070	210200	125311150	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	Blank	141100	140100	70070	210200	125311151	1076350
ChlorobenzeneD5 (ISTD)	1076350	CCV	252600	252600	126300	378900	125311148	1076350
ChlorobenzeneD5 (ISTD)	1076350	LCS	255500	252600	126300	378900	125311149	1076350
ChlorobenzeneD5 (ISTD)	1076350	LCS Dup	255900	252600	126300	378900	125311150	1076350
ChlorobenzeneD5 (ISTD)	1076350	Blank	253700	252600	126300	378900	125311151	1076350
1,4-DichlorobenzeneD4 (ISTD)	2219394	MS	137100	140100	70070	210200	125311157	1076350
1,4-DichlorobenzeneD4 (ISTD)	2219394	MSD	144400	140100	70070	210200	125311158	1076350
ChlorobenzeneD5 (ISTD)	2219394	MS	252000	252600	126300	378900	125311157	1076350
ChlorobenzeneD5 (ISTD)	2219394	MSD	259700	252600	126300	378900	125311158	1076350
1,4-DichlorobenzeneD4 (ISTD)	2220405	Unknown	143800	140100	70070	210200	125311155	1076350
ChlorobenzeneD5 (ISTD)	2220405	Unknown	256200	252600	126300	378900	125311155	1076350

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1076350	CCV	15.46	15.46	15.40	15.52	125311148	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	LCS	15.46	15.46	15.40	15.52	125311149	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	LCS Dup	15.46	15.46	15.40	15.52	125311150	1076350
1,4-DichlorobenzeneD4 (ISTD)	1076350	Blank	15.46	15.46	15.40	15.52	125311151	1076350
ChlorobenzeneD5 (ISTD)	1076350	CCV	11.72	11.72	11.66	11.78	125311148	1076350
ChlorobenzeneD5 (ISTD)	1076350	LCS	11.72	11.72	11.66	11.78	125311149	1076350
ChlorobenzeneD5 (ISTD)	1076350	LCS Dup	11.73	11.72	11.66	11.78	125311150	1076350
ChlorobenzeneD5 (ISTD)	1076350	Blank	11.73	11.72	11.66	11.78	125311151	1076350
1,4-DichlorobenzeneD4 (ISTD)	2219394	MS	15.47	15.46	15.40	15.52	125311157	1076350
1,4-DichlorobenzeneD4 (ISTD)	2219394	MSD	15.47	15.46	15.40	15.52	125311158	1076350
ChlorobenzeneD5 (ISTD)	2219394	MS	11.74	11.72	11.66	11.78	125311157	1076350
ChlorobenzeneD5 (ISTD)	2219394	MSD	11.73	11.72	11.66	11.78	125311158	1076350
1,4-DichlorobenzeneD4 (ISTD)	2220405	Unknown	15.47	15.46	15.40	15.52	125311155	1076350
ChlorobenzeneD5 (ISTD)	2220405	Unknown	11.74	11.72	11.66	11.78	125311155	1076350



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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	1076350	20.9	21.1	20.0	70.0 - 130	104	106	ug/L	1.90	30.0
1,1,2-Trichloroethane	1076350	17.9	18.2	20.0	70.0 - 130	89.5	91.0	ug/L	1.66	30.0
1,1-Dichloroethylene	1076350	14.8	14.9	20.0	70.0 - 130	74.0	74.5	ug/L	0.673	30.0
1,2,4-Trichlorobenzene	1076350	24.3	25.5	20.0	70.0 - 130	122	128	ug/L	4.80	30.0
1,2-Dichloroethane	1076350	20.0	20.9	20.0	70.0 - 130	100	104	ug/L	3.92	30.0
1,2-Dichloropropane	1076350	16.8	17.7	20.0	70.0 - 130	84.0	88.5	ug/L	5.22	30.0
Benzene	1076350	16.0	16.4	20.0	70.0 - 130	80.0	82.0	ug/L	2.47	30.0
Bromodichloromethane	1076350	19.8	20.6	20.0	70.0 - 130	99.0	103	ug/L	3.96	30.0
Bromoform	1076350	26.6	27.5	20.0	70.0 - 130	133 *	138 *	ug/L	3.69	30.0
Carbon Tetrachloride	1076350	22.4	22.5	20.0	70.0 - 130	112	112	ug/L	0	30.0
Chlorobenzene	1076350	19.2	19.4	20.0	70.0 - 130	96.0	97.0	ug/L	1.04	30.0
Chloroform	1076350	18.2	19.7	20.0	70.0 - 130	91.0	98.5	ug/L	7.92	30.0
cis-1,2-Dichloroethylene	1076350	16.5	17.2	20.0	70.0 - 130	82.5	86.0	ug/L	4.15	30.0
Dibromochloromethane	1076350	21.8	22.3	20.0	70.0 - 130	109	112	ug/L	2.71	30.0
Dichloromethane	1076350	14.7	15.5	20.0	70.0 - 130	73.5	77.5	ug/L	5.30	30.0
Ethylbenzene	1076350	18.6	19.0	20.0	70.0 - 130	93.0	95.0	ug/L	2.13	30.0
m- and p-Xylene	1076350	37.9	39.2	40.0	70.0 - 130	94.8	98.0	ug/L	3.32	30.0
o-Dichlorobenzene (1,2-DCB)	1076350	19.0	20.0	20.0	70.0 - 130	95.0	100	ug/L	5.13	30.0
o-Xylene	1076350	19.3	20.0	20.0	70.0 - 130	96.5	100	ug/L	3.56	30.0
p-Dichlorobenzene (1,4-DCB)	1076350	18.4	19.4	20.0	70.0 - 130	92.0	97.0	ug/L	5.29	30.0
Styrene	1076350	19.7	20.5	20.0	70.0 - 130	98.5	102	ug/L	3.49	30.0
Tetrachloroethylene	1076350	22.6	23.0	20.0	70.0 - 130	113	115	ug/L	1.75	30.0
Toluene	1076350	17.5	18.2	20.0	70.0 - 130	87.5	91.0	ug/L	3.92	30.0
trans-1,2-Dichloroethylene	1076350	14.2	14.8	20.0	70.0 - 130	71.0	74.0	ug/L	4.14	30.0
Trichloroethylene	1076350	16.9	17.6	20.0	70.0 - 130	84.5	88.0	ug/L	4.06	30.0
Vinyl chloride	1076350	14.9	15.1	20.0	70.0 - 130	74.5	75.5	ug/L	1.33	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,1,1-Trichloroethane	2219394	3.40	11.4	ND	20.0	0.100 - 125	17.0	57.0	ug/L	108 *	30.0
1,1,2-Trichloroethane	2219394	2.61	9.15	ND	20.0	0.100 - 169	13.0	45.8	ug/L	111 *	30.0
1,1-Dichloroethylene	2219394	2.35	8.05	ND	20.0	0.100 - 112	11.8	40.2	ug/L	110 *	30.0
1,2,4-Trichlorobenzene	2219394	3.34	11.6	ND	20.0	0.916 - 131	16.7	58.0	ug/L	111 *	30.0
1,2-Dichloroethane	2219394	2.77	10.1	ND	20.0	0.100 - 162	13.8	50.5	ug/L	114 *	30.0
1,2-Dichloropropane	2219394	2.43	8.48	ND	20.0	0.100 - 158	12.2	42.4	ug/L	111 *	30.0
Benzene	2219394	2.26	8.18	ND	20.0	0.100 - 127	11.3	40.9	ug/L	113 *	30.0
Bromodichloromethane	2219394	3.18	9.80	ND	20.0	0.423 - 149	15.9	49.0	ug/L	102 *	30.0
Bromoform	2219394	3.51	12.3	ND	20.0	16.3 - 137	17.6	61.5	ug/L	111 *	30.0
Carbon Tetrachloride	2219394	3.82	12.6	ND	20.0	0.100 - 112	19.1	63.0	ug/L	107 *	30.0
Chlorobenzene	2219394	2.64	9.48	ND	20.0	0.153 - 134	13.2	47.4	ug/L	113 *	30.0
Chloroform	2219394	3.03	9.93	ND	20.0	3.11 - 145	15.2	49.6	ug/L	106 *	30.0
cis-1,2-Dichloroethylene	2219394	2.52	8.69	ND	20.0	11.7 - 130	12.6	43.4	ug/L	110 *	30.0
Dibromochloromethane	2219394	3.08	9.88	ND	20.0	0.100 - 144	15.4	49.4	ug/L	105 *	30.0
Dichloromethane	2219394	2.18	7.76	ND	20.0	0.100 - 153	10.9	38.8	ug/L	112 *	30.0
Ethylbenzene	2219394	2.76	9.40	ND	20.0	0.100 - 129	13.8	47.0	ug/L	109 *	30.0



QUALITY CONTROL



SPAC-R

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
m- and p-Xylene	2219394	5.60	19.5	ND	40.0	2.71 - 128	14.0	48.8	ug/L	111 *	30.0
o-Dichlorobenzene (1,2-DCB)	2219394	2.69	9.65	ND	20.0	0.100 - 135	13.4	48.2	ug/L	113 *	30.0
o-Xylene	2219394	2.88	9.98	ND	20.0	1.85 - 131	14.4	49.9	ug/L	110 *	30.0
p-Dichlorobenzene (1,4-DCB)	2219394	2.11	9.29	ND	20.0	0.100 - 135	10.6	46.4	ug/L	126 *	30.0
Styrene	2219394	1.36	5.61	ND	20.0	8.04 - 128	6.80 *	28.0	ug/L	122 *	30.0
Tetrachloroethylene	2219394	3.48	11.6	ND	20.0	1.57 - 120	17.4	58.0	ug/L	108 *	30.0
Toluene	2219394	2.58	8.73	ND	20.0	0.100 - 151	12.9	43.6	ug/L	109 *	30.0
trans-1,2-Dichloroethylene	2219394	2.25	7.70	ND	20.0	0.100 - 110	11.2	38.5	ug/L	110 *	30.0
Trichloroethylene	2219394	2.98	9.18	ND	20.0	0.100 - 154	14.9	45.9	ug/L	102 *	30.0
Vinyl chloride	2219394	2.53	9.39	ND	20.0	0.100 - 114	12.6	47.0	ug/L	115 *	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1076350	CCV	22.6	20.0	ug/L	113	70.0 - 130	125311148
1,2-DCA-d4 (SURR)	1076350	LCS	22.1	20.0	ug/L	110	70.0 - 130	125311149
1,2-DCA-d4 (SURR)	1076350	LCS Dup	21.8	20.0	ug/L	109	70.0 - 130	125311150
1,2-DCA-d4 (SURR)	1076350	Blank	22.2	20.0	ug/L	111	70.0 - 130	125311151
Bromofluorobenzene (SURR)	1076350	CCV	19.2	20.0	ug/L	96.0	70.0 - 130	125311148
Bromofluorobenzene (SURR)	1076350	LCS	18.9	20.0	ug/L	94.5	70.0 - 130	125311149
Bromofluorobenzene (SURR)	1076350	LCS Dup	18.3	20.0	ug/L	91.5	70.0 - 130	125311150
Bromofluorobenzene (SURR)	1076350	Blank	18.7	20.0	ug/L	93.5	70.0 - 130	125311151
Dibromofluoromethane (SURR)	1076350	CCV	21.6	20.0	ug/L	108	70.0 - 130	125311148
Dibromofluoromethane (SURR)	1076350	LCS	21.8	20.0	ug/L	109	70.0 - 130	125311149
Dibromofluoromethane (SURR)	1076350	LCS Dup	21.6	20.0	ug/L	108	70.0 - 130	125311150
Dibromofluoromethane (SURR)	1076350	Blank	21.6	20.0	ug/L	108	70.0 - 130	125311151
TolueneD8 (SURR)	1076350	CCV	19.8	20.0	ug/L	99.0	70.0 - 130	125311148
TolueneD8 (SURR)	1076350	LCS	19.3	20.0	ug/L	96.5	70.0 - 130	125311149
TolueneD8 (SURR)	1076350	LCS Dup	19.3	20.0	ug/L	96.5	70.0 - 130	125311150
TolueneD8 (SURR)	1076350	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	125311151
1,2-DCA-d4 (SURR)	2219394	MS	23.3	20.0	ug/L	116	70.0 - 130	125311157
1,2-DCA-d4 (SURR)	2219394	MSD	22.6	20.0	ug/L	113	70.0 - 130	125311158
Bromofluorobenzene (SURR)	2219394	MS	19.0	20.0	ug/L	95.0	70.0 - 130	125311157
Bromofluorobenzene (SURR)	2219394	MSD	18.6	20.0	ug/L	93.0	70.0 - 130	125311158
Dibromofluoromethane (SURR)	2219394	MS	21.5	20.0	ug/L	108	70.0 - 130	125311157
Dibromofluoromethane (SURR)	2219394	MSD	21.8	20.0	ug/L	109	70.0 - 130	125311158
TolueneD8 (SURR)	2219394	MS	20.0	20.0	ug/L	100	70.0 - 130	125311157
TolueneD8 (SURR)	2219394	MSD	19.9	20.0	ug/L	99.5	70.0 - 130	125311158
1,2-DCA-d4 (SURR)	2220405	Unknown	22.7	20.0	ug/L	114	70.0 - 130	125311155
Bromofluorobenzene (SURR)	2220405	Unknown	18.2	20.0	ug/L	91.0	70.0 - 130	125311155
Dibromofluoromethane (SURR)	2220405	Unknown	22.4	20.0	ug/L	112	70.0 - 130	125311155
TolueneD8 (SURR)	2220405	Unknown	20.0	20.0	ug/L	100	70.0 - 130	125311155

Analytical Set 1076627

EPA 547

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Glyphosate	605	500	ug/L	120	80.0 - 120	125319054
Glyphosate	548	500	ug/L	110	80.0 - 120	125319062

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Glyphosate	2220405	483	480	ND	500	48.8 - 136	96.6	96.0	ug/L	0.623	30.0

Analytical Set **1076969**

EPA 8316

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Acrylamide	958	1000	ug/L	95.8	70.0 - 130	125329251
Acrylamide	938	1000	ug/L	93.8	70.0 - 130	125329259

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrylamide	2220405	993	979	ND	1000	60.0 - 130	99.3	97.9	ug/L	1.42	30.0

Analytical Set **1077397**

EPA 504.1 1.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,3-Trichloropropane	1077386	ND	0.0267	0.050	ug/L	125339569
1,2-Dibromo-3-chloropropane DBCP	1077386	ND	0.0121	0.050	ug/L	125339569
1,2-Dibromoethane	1077386	ND	0.0132	0.050	ug/L	125339569

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
1,2,3-Trichloropropane	0.544	0.500	ug/L	109	70.0 - 130	125339568
1,2,3-Trichloropropane	0.531	0.500	ug/L	106	70.0 - 130	125339576
1,2-Dibromo-3-chloropropane DBCP	0.478	0.500	ug/L	95.6	70.0 - 130	125339568
1,2-Dibromo-3-chloropropane DBCP	0.456	0.500	ug/L	91.2	70.0 - 130	125339576
1,2-Dibromoethane	0.487	0.500	ug/L	97.4	70.0 - 130	125339568
1,2-Dibromoethane	0.472	0.500	ug/L	94.4	70.0 - 130	125339576

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,3-Trichloropropane	1077386	0.256	0.287	0.250	70.0 - 130	102	115	ug/L	12.0	30.0
1,2-Dibromo-3-chloropropane DBCP	1077386	0.259	0.257	0.250	70.0 - 130	104	103	ug/L	0.966	30.0
1,2-Dibromoethane	1077386	0.254	0.251	0.250	70.0 - 130	102	100	ug/L	1.98	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
1,2,3-Trichloropropane	2220405	0.508	0.496	ND	0.500	70.0 - 130	102	99.2	ug/L	2.39	30.0
1,2-Dibromo-3-chloropropane DBCP	2220405	0.483	0.495	ND	0.500	70.0 - 130	96.6	99.0	ug/L	2.45	30.0
1,2-Dibromoethane	2220405	0.463	0.471	ND	0.500	70.0 - 130	92.6	94.2	ug/L	1.71	30.0

Analytical Set **1077669**

EPA 531.2



QUALITY CONTROL



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbofuran	86.7	100	ug/L	86.7	70.0 - 130	125345528
Carbofuran	86.5	100	ug/L	86.5	70.0 - 130	125345539
Carbofuran	86.7	100	ug/L	86.7	70.0 - 130	125345541
Oxamyl	81.1	100	ug/L	81.1	70.0 - 130	125345528
Oxamyl	114	100	ug/L	114	70.0 - 130	125345539
Oxamyl	84.8	100	ug/L	84.8	70.0 - 130	125345541

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Carbofuran	2220405	90.0	106	ND	100	30.0 - 130	90.0	106	ug/L	16.3	30.0
Oxamyl	2220405	104	104	ND	100	30.0 - 130	104	104	ug/L	0	30.0

Analytical Set

1077727

EPA 524.2 4.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1077727	174	47	0.7	0 - 2.00	125346334
BFB Mass 174	1077727	95.0	6912	70.5	50.0 - 100	125346334
BFB Mass 175	1077727	174	480	6.9	5.00 - 9.00	125346334
BFB Mass 176	1077727	174	6578	95.2	95.0 - 101	125346334
BFB Mass 177	1077727	176	401	6.1	5.00 - 9.00	125346334
BFB Mass 50	1077727	95.0	1592	16.2	15.0 - 40.0	125346334
BFB Mass 75	1077727	95.0	4619	47.1	30.0 - 60.0	125346334
BFB Mass 95	1077727	95.0	9805	100.0	100 - 100	125346334
BFB Mass 96	1077727	95.0	609	6.2	5.00 - 9.00	125346334

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Epichlorohydrin	1077727	ND	6.85	20.0	ug/L	125346338

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Epichlorohydrin	232	200	ug/L	116	70.0 - 130	125346335

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1077727	CCV	131000	131000	65500	196500	125346335	1077727
1,4-DichlorobenzeneD4 (ISTD)	1077727	LCS	134000	131000	65500	196500	125346336	1077727
1,4-DichlorobenzeneD4 (ISTD)	1077727	LCS Dup	126900	131000	65500	196500	125346337	1077727
1,4-DichlorobenzeneD4 (ISTD)	1077727	Blank	127700	131000	65500	196500	125346338	1077727
ChlorobenzeneD5 (ISTD)	1077727	CCV	272000	272000	136000	408000	125346335	1077727
ChlorobenzeneD5 (ISTD)	1077727	LCS	282200	272000	136000	408000	125346336	1077727
ChlorobenzeneD5 (ISTD)	1077727	LCS Dup	269300	272000	136000	408000	125346337	1077727
ChlorobenzeneD5 (ISTD)	1077727	Blank	272500	272000	136000	408000	125346338	1077727
1,4-DichlorobenzeneD4 (ISTD)	2220405	Unknown	117500	131000	65500	196500	125346339	1077727
ChlorobenzeneD5 (ISTD)	2220405	Unknown	250500	272000	136000	408000	125346339	1077727



QUALITY CONTROL



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IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1077727	LCS	11.10	11.10	11.04	11.16	125346336	1077727
1,4-DichlorobenzeneD4 (ISTD)	1077727	LCS Dup	11.10	11.10	11.04	11.16	125346337	1077727
1,4-DichlorobenzeneD4 (ISTD)	1077727	Blank	11.10	11.10	11.04	11.16	125346338	1077727
ChlorobenzeneD5 (ISTD)	1077727	LCS	8.739	8.745	8.685	8.805	125346336	1077727
ChlorobenzeneD5 (ISTD)	1077727	LCS Dup	8.739	8.745	8.685	8.805	125346337	1077727
ChlorobenzeneD5 (ISTD)	1077727	Blank	8.745	8.745	8.685	8.805	125346338	1077727
1,4-DichlorobenzeneD4 (ISTD)	2220405	Unknown	11.10	11.10	11.04	11.16	125346339	1077727
ChlorobenzeneD5 (ISTD)	2220405	Unknown	8.739	8.745	8.685	8.805	125346339	1077727

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Epichlorohydrin	1077727	220	218	200	27.5 - 189	110	109	ug/L	0.913	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1077727	CCV	18.3	20.0	ug/L	91.5	72.3 - 106	125346335
1,2-DCA-d4 (SURR)	1077727	LCS	18.3	20.0	ug/L	91.5	72.3 - 106	125346336
1,2-DCA-d4 (SURR)	1077727	LCS Dup	18.3	20.0	ug/L	91.5	72.3 - 106	125346337
1,2-DCA-d4 (SURR)	1077727	Blank	18.0	20.0	ug/L	90.0	72.3 - 106	125346338
Bromofluorobenzene (SURR)	1077727	CCV	21.7	20.0	ug/L	108	87.2 - 122	125346335
Bromofluorobenzene (SURR)	1077727	LCS	21.8	20.0	ug/L	109	87.2 - 122	125346336
Bromofluorobenzene (SURR)	1077727	LCS Dup	21.5	20.0	ug/L	108	87.2 - 122	125346337
Bromofluorobenzene (SURR)	1077727	Blank	21.1	20.0	ug/L	106	87.2 - 122	125346338
Dibromofluoromethane (SURR)	1077727	CCV	19.2	20.0	ug/L	96.0	46.7 - 114	125346335
Dibromofluoromethane (SURR)	1077727	LCS	18.6	20.0	ug/L	93.0	46.7 - 114	125346336
Dibromofluoromethane (SURR)	1077727	LCS Dup	18.7	20.0	ug/L	93.5	46.7 - 114	125346337
Dibromofluoromethane (SURR)	1077727	Blank	18.8	20.0	ug/L	94.0	46.7 - 114	125346338
TolueneD8 (SURR)	1077727	CCV	22.9	20.0	ug/L	114 *	57.4 - 112	125346335
TolueneD8 (SURR)	1077727	LCS	22.9	20.0	ug/L	114 *	57.4 - 112	125346336
TolueneD8 (SURR)	1077727	LCS Dup	22.9	20.0	ug/L	114 *	57.4 - 112	125346337
TolueneD8 (SURR)	1077727	Blank	22.4	20.0	ug/L	112	57.4 - 112	125346338
1,2-DCA-d4 (SURR)	2220405	Unknown	19.7	20.0	ug/L	98.5	72.3 - 106	125346339
Bromofluorobenzene (SURR)	2220405	Unknown	21.0	20.0	ug/L	105	87.2 - 122	125346339
Dibromofluoromethane (SURR)	2220405	Unknown	19.9	20.0	ug/L	99.5	46.7 - 114	125346339
TolueneD8 (SURR)	2220405	Unknown	23.1	20.0	ug/L	116 *	57.4 - 112	125346339

Analytical Set

1078015

EPA 508 3.1

Blank

Parameter	PrepSet	Reading	MDL	MDL	Units	File
Chlordane	1076753	ND	18.3	20.0	ug/L	125355680
Toxaphene	1076753	ND	0.169	0.200	ug/L	125355680

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chlordane	1000	1000	ug/L	100	70.0 - 130	125355679
Chlordane	946	1000	ug/L	94.6	70.0 - 130	125355685



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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Toxaphene	899	1000	ug/L	89.9	70.0 - 130	125355679
Toxaphene	834	1000	ug/L	83.4	70.0 - 130	125355685

LCS Dup

Parameter	PrepSet	LCS	LCS D	Known	Limits%	LCS%	LCS D%	Units	RPD	Limit%
Chlordane	1076753	223	336	200	0.100 - 216	112	168	ug/L	40.0 *	30.0
Toxaphene	1076753	4.06	4.94	4.00	0.100 - 215	102	124	ug/L	19.5	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1076753	Blank	96.3	100	ug/L	96.3	0.100 - 129	125355680
Tetrachloro-m-Xylene (Surr)	1076753	Blank	62.5	100	ug/L	62.5	0.100 - 149	125355680
Decachlorobiphenyl	2220405	Unknown	0.440	0.487	ug/L	90.3	0.100 - 129	125355684
Tetrachloro-m-Xylene (Surr)	2220405	Unknown	0.285	0.487	ug/L	58.5	0.100 - 149	125355684

Analytical Set

1079663

EPA 552.2 1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Bromoacetic acid	1077918	ND	1.70	5.00	ug/L	125393963
Chloroacetic acid	1077918	ND	1.24	5.00	ug/L	125393963
Dibromoacetic acid	1077918	ND	1.40	5.00	ug/L	125393963
Dichloroacetic acid	1077918	ND	1.94	5.00	ug/L	125393963
Trichloroacetic acid	1077918	ND	1.63	5.00	ug/L	125393963

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Bromoacetic acid	16.8	20.0	ug/L	84.1	70.0 - 130	125393960
Bromoacetic acid	19.2	20.0	ug/L	96.0	70.0 - 130	125393971
Bromoacetic acid	16.4	20.0	ug/L	82.0	70.0 - 130	125393987
Bromoacetic acid	18.9	20.0	ug/L	94.6	70.0 - 130	125393991
Chloroacetic acid	17.3	20.0	ug/L	86.3	70.0 - 130	125393960
Chloroacetic acid	19.7	20.0	ug/L	98.4	70.0 - 130	125393971
Chloroacetic acid	17.1	20.0	ug/L	85.3	70.0 - 130	125393987
Chloroacetic acid	19.4	20.0	ug/L	96.9	70.0 - 130	125393991
Dibromoacetic acid	19.3	20.0	ug/L	96.4	70.0 - 130	125393960
Dibromoacetic acid	23.1	20.0	ug/L	115	70.0 - 130	125393971
Dibromoacetic acid	19.2	20.0	ug/L	96.0	70.0 - 130	125393987
Dibromoacetic acid	22.5	20.0	ug/L	112	70.0 - 130	125393991
Dichloroacetic acid	16.3	20.0	ug/L	81.5	70.0 - 130	125393960
Dichloroacetic acid	18.5	20.0	ug/L	92.7	70.0 - 130	125393971
Dichloroacetic acid	16.1	20.0	ug/L	80.4	70.0 - 130	125393987
Dichloroacetic acid	18.6	20.0	ug/L	92.8	70.0 - 130	125393991
Trichloroacetic acid	17.1	20.0	ug/L	85.7	70.0 - 130	125393960
Trichloroacetic acid	19.7	20.0	ug/L	98.5	70.0 - 130	125393971
Trichloroacetic acid	17.0	20.0	ug/L	85.1	70.0 - 130	125393987
Trichloroacetic acid	19.8	20.0	ug/L	99.0	70.0 - 130	125393991



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IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,2,3-Trichloropropane (IS)		CCV	13810000	138100000	966900000	1796000000	125393960	1079663
1,2,3-Trichloropropane (IS)		CCV	11990000	138100000	966900000	1796000000	125393971	1079663
1,2,3-Trichloropropane (IS)		CCV	14270000	138100000	966900000	1796000000	125393987	1079663
1,2,3-Trichloropropane (IS)		CCV	12930000	138100000	966900000	1796000000	125393991	1079663
1,2,3-Trichloropropane (IS)	1077918	LCS	12010000	138100000	966900000	1796000000	125393961	1077918
1,2,3-Trichloropropane (IS)	1077918	Blank	11160000	138100000	966900000	1796000000	125393963	1077918
1,2,3-Trichloropropane (IS)	2220402	MS	11970000	138100000	966900000	1796000000	125393965	1077918
1,2,3-Trichloropropane (IS)	2220402	MSD	10950000	138100000	966900000	1796000000	125393966	1077918
1,2,3-Trichloropropane (IS)	2220405	Unknown	11900000	138100000	966900000	1796000000	125393967	1077918

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,2,3-Trichloropropane (IS)		CCV	7.370	7.370	7.310	7.430	125393960	1079663
1,2,3-Trichloropropane (IS)		CCV	7.370	7.370	7.310	7.430	125393971	1079663
1,2,3-Trichloropropane (IS)		CCV	7.370	7.370	7.310	7.430	125393987	1079663
1,2,3-Trichloropropane (IS)		CCV	7.370	7.370	7.310	7.430	125393991	1079663
1,2,3-Trichloropropane (IS)	1077918	LCS	7.370	7.370	7.310	7.430	125393961	1077918
1,2,3-Trichloropropane (IS)	1077918	Blank	7.370	7.370	7.310	7.430	125393963	1077918
1,2,3-Trichloropropane (IS)	2220402	MS	7.370	7.370	7.310	7.430	125393965	1077918
1,2,3-Trichloropropane (IS)	2220402	MSD	7.360	7.370	7.310	7.430	125393966	1077918
1,2,3-Trichloropropane (IS)	2220405	Unknown	7.370	7.370	7.310	7.430	125393967	1077918

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Bromoacetic acid	1077918	17.7	19.4	20.0	70.0 - 130	88.5	97.0	ug/L	9.16	30.0
Chloroacetic acid	1077918	19.1	20.7	20.0	70.0 - 130	95.5	104	ug/L	8.52	30.0
Dibromoacetic acid	1077918	21.3	23.7	20.0	70.0 - 130	106	118	ug/L	10.7	30.0
Dichloroacetic acid	1077918	18.1	19.7	20.0	70.0 - 130	90.5	98.5	ug/L	8.47	30.0
Trichloroacetic acid	1077918	19.6	21.5	20.0	70.0 - 130	98.0	108	ug/L	9.71	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Bromoacetic acid	2220402	19.0	21.9	ND	20.0	30.0 - 150	95.0	110	ug/L	14.2	30.0
Chloroacetic acid	2220402	31.0	34.2	ND	20.0	15.0 - 150	155 *	171 *	ug/L	9.82	30.0
Dibromoacetic acid	2220402	23.4	27.0	ND	20.0	30.0 - 150	117	135	ug/L	14.3	30.0
Dichloroacetic acid	2220402	19.2	22.3	ND	20.0	30.0 - 150	96.0	112	ug/L	14.9	30.0
Trichloroacetic acid	2220402	20.6	24.6	ND	20.0	30.0 - 150	103	123	ug/L	17.7	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,3-Dibromopropionic (Surr)		CCV	18.5	20.0	ug/L	92.5	70.0 - 130	125393960
2,3-Dibromopropionic (Surr)		CCV	22.0	20.0	ug/L	110	70.0 - 130	125393971
2,3-Dibromopropionic (Surr)		CCV	17.9	20.0	ug/L	89.5	70.0 - 130	125393987
2,3-Dibromopropionic (Surr)		CCV	21.2	20.0	ug/L	106	70.0 - 130	125393991
2,3-Dibromopropionic (Surr)	1077918	LCS	21.5	20.0	ug/L	108	70.0 - 130	125393961
2,3-Dibromopropionic (Surr)	1077918	LCS Dup	23.8	20.0	ug/L	119	70.0 - 130	125393962



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Parameter	Sample	Type	Reading	Surrogate		Recover%	Limits%	File
				Known	Units			
2,3-Dibromopropionic (Surr)	1077918	Blank	22.7	20.0	ug/L	114	70.0 - 130	125393963
2,3-Dibromopropionic (Surr)	2220402	MS	22.3	20.0	ug/L	112	70.0 - 130	125393965
2,3-Dibromopropionic (Surr)	2220402	MSD	23.5	20.0	ug/L	118	70.0 - 130	125393966
2,3-Dibromopropionic (Surr)	2220405	Unknown	22.5	20.0	ug/L	112	70.0 - 130	125393967

Analytical Set 1079688

EPA 525.2 2

Parameter	PrepSet	Reading	MDL	Blank		Units	File
				MQL	Units		
Alachlor	1077817	ND	0.0237	0.100	ug/L	125394279	
Atrazine	1077817	ND	0.0646	0.100	ug/L	125394279	
Benzo(a)pyrene	1077817	ND	39.4	100	ug/L	125394279	
Bis(2-ethylhexyl)adipate	1077817	0.110	0.0921	0.100	ug/L	* 125394279	
Bis(2-ethylhexyl)phthalate	1077817	0.220	0.0676	0.100	ug/L	* 125394279	
Endrin	1077817	ND	0.0934	0.100	ug/L	125394279	
gamma-BCH (Lindane)	1077817	ND	0.0217	0.100	ug/L	125394279	
Heptachlor	1077817	ND	0.0394	0.100	ug/L	125394279	
Heptachlor epoxide	1077817	ND	0.0974	0.100	ug/L	125394279	
Hexachlorobenzene	1077817	ND	0.091	0.100	ug/L	125394279	
Hexachlorocyclopentadiene	1077817	ND	0.0314	0.100	ug/L	125394279	
Methoxychlor	1077817	ND	0.0345	0.100	ug/L	125394279	
Simazine	1077817	ND	0.0883	0.100	ug/L	125394279	

Parameter	Reading	Known	Units	Recover%	Limits%	File
Alachlor	2030	2000	ug/L	102	70.0 - 130	125394278
Alachlor	2700	2000	ug/L	135	70.0 - 130	* 125394284
Atrazine	2230	2000	ug/L	112	70.0 - 130	125394278
Atrazine	2400	2000	ug/L	120	70.0 - 130	125394284
Benzo(a)pyrene	2000	2000	ug/L	100	70.0 - 130	125394278
Benzo(a)pyrene	2250	2000	ug/L	112	70.0 - 130	125394284
Bis(2-ethylhexyl)adipate	2640	2000	ug/L	132	70.0 - 130	* 125394278
Bis(2-ethylhexyl)adipate	2750	2000	ug/L	138	70.0 - 130	* 125394284
Bis(2-ethylhexyl)phthalate	2600	2000	ug/L	130	70.0 - 130	125394278
Bis(2-ethylhexyl)phthalate	2610	2000	ug/L	130	70.0 - 130	125394284
Endrin	1920	2000	ug/L	96.0	70.0 - 130	125394278
Endrin	2120	2000	ug/L	106	70.0 - 130	125394284
gamma-BCH (Lindane)	2060	2000	ug/L	103	70.0 - 130	125394278
gamma-BCH (Lindane)	1940	2000	ug/L	97.0	70.0 - 130	125394284
Heptachlor	1910	2000	ug/L	95.5	70.0 - 130	125394278
Heptachlor	2520	2000	ug/L	126	70.0 - 130	125394284
Heptachlor epoxide	1920	2000	ug/L	96.0	70.0 - 130	125394278
Heptachlor epoxide	2430	2000	ug/L	122	70.0 - 130	125394284
Hexachlorobenzene	1680	2000	ug/L	84.0	70.0 - 130	125394278
Hexachlorobenzene	2330	2000	ug/L	116	70.0 - 130	125394284
Hexachlorocyclopentadiene	2140	2000	ug/L	107	70.0 - 130	125394278



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Parameter	Reading	Known	Units	Recover%	Limits%		File
Hexachlorocyclopentadiene	1160	2000	ug/L	58.0	70.0 - 130	*	125394284
Methoxychlor	2430	2000	ug/L	122	70.0 - 130		125394278
Methoxychlor	2460	2000	ug/L	123	70.0 - 130		125394284
Simazine	2280	2000	ug/L	114	70.0 - 130		125394278
Simazine	2630	2000	ug/L	132	70.0 - 130	*	125394284

DFTPP

Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 127	618486	198	142157	58.2	40.0 - 60.0	125394277
DFTPP Mass 197	618486	198	669	0.3	0 - 1.00	125394277
DFTPP Mass 198	618486	198	244309	100.0	100 - 100	125394277
DFTPP Mass 199	618486	198	15583	6.4	5.00 - 9.00	125394277
DFTPP Mass 275	618486	198	58181	23.8	10.0 - 30.0	125394277
DFTPP Mass 365	618486	198	8350	3.4	1.00 - 100	125394277
DFTPP Mass 441	618486	443	27059	84.6	0.010 - 100	125394277
DFTPP Mass 442	618486	198	158464	64.9	40.0 - 100	125394277
DFTPP Mass 443	618486	442	31979	20.2	17.0 - 23.0	125394277
DFTPP Mass 51	618486	198	131043	53.6	30.0 - 60.0	125394277
DFTPP Mass 68	618486	69.0	1164	0.9	0 - 2.00	125394277
DFTPP Mass 69	618486	198	133381	54.6	0 - 100	125394277
DFTPP Mass 70	618486	69.0	0	0.0	0 - 2.00	125394277

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10	616780	CCV	4171000	4171000	2920000	5422000	125394278	616780
Acenaphthene-d10	616780	CCV	1567000	4171000	2920000	5422000	*	125394284
Anthracene-d10	616780	CCV	4995000	4995000	3496000	6493000		125394278
Anthracene-d10	616780	CCV	2306000	4995000	3496000	6493000	*	125394284
Chrysene-d12	616780	CCV	3022000	3022000	2115000	3929000		125394278
Chrysene-d12	616780	CCV	1830000	3022000	2115000	3929000	*	125394284
Perylene-d12	616780	CCV	3514000	3514000	2460000	4569000		125394278
Perylene-d12	616780	CCV	2175000	3514000	2460000	4569000	*	125394284
Acenaphthene-d10	2220405	Unknown	40570	4171000	2920000	5422000	*	125394283
Anthracene-d10	2220405	Unknown	67740	4995000	3496000	6493000	*	125394283
Chrysene-d12	2220405	Unknown	98580	3022000	2115000	3929000	*	125394283
Perylene-d12	2220405	Unknown	61730	3514000	2460000	4569000	*	125394283

LCS Dup

Parameter	PrepSet	LCS	LCS D	Known	Limits%	LCS%	LCS D%	Units	RPD	Limit%
Alachlor	1077817	1.95	2.56	2.50	70.0 - 130	78.0	102	ug/L	26.7	30.0
Atrazine	1077817	2.33	2.59	2.50	70.0 - 130	93.2	104	ug/L	11.0	30.0
Benzo(a)pyrene	1077817	3900	860	2500	70.0 - 130	156 *	34.4 *	ug/L	128 *	30.0
Bis(2-ethylhexyl)adipate	1077817	3.34	1.34	2.50	70.0 - 130	134 *	53.6 *	ug/L	85.7 *	30.0
Bis(2-ethylhexyl)phthalate	1077817	3.97	1.30	2.50	70.0 - 130	159 *	52.0 *	ug/L	101 *	30.0
Endrin	1077817	4.06	1.86	2.50	70.0 - 130	162 *	74.4	ug/L	74.1 *	30.0
gamma-BCH (Lindane)	1077817	2.10	2.51	2.50	70.0 - 130	84.0	100	ug/L	17.4	30.0



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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Heptachlor	1077817	6.25	1.16	2.50	70.0 - 130	250 *	46.4 *	ug/L	137 *	30.0
Heptachlor epoxide	1077817	5.49	2.14	2.50	70.0 - 130	220 *	85.6	ug/L	88.0 *	30.0
Hexachlorobenzene	1077817	7.15	1.50	2.50	70.0 - 130	286 *	60.0 *	ug/L	131 *	30.0
Hexachlorocyclopentadiene	1077817	3.12	1.34	2.50	70.0 - 130	125	53.6 *	ug/L	80.0 *	30.0
Methoxychlor	1077817	2.77	1.27	2.50	70.0 - 130	111	50.8 *	ug/L	74.4 *	30.0
Simazine	1077817	1.97	1.82	2.50	70.0 - 130	78.8	72.8	ug/L	7.92	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,3-Dimethyl-2-nitrobenzene	616780	CCV	3230	5000	ug/L	64.6	50.0 - 150	125394278
1,3-Dimethyl-2-nitrobenzene	616780	CCV	2990	5000	ug/L	59.8	50.0 - 150	125394284
p-Terphenyl-d14	616780	CCV	5000	5000	ug/L	100	50.0 - 150	125394278
p-Terphenyl-d14	616780	CCV	5000	5000	ug/L	100	50.0 - 150	125394284
Triphenylphosphate	616780	CCV	5700	5000	ug/L	114	50.0 - 150	125394278
Triphenylphosphate	616780	CCV	5430	5000	ug/L	109	50.0 - 150	125394284
1,3-Dimethyl-2-nitrobenzene	1077817	Blank	4380	5000	ug/L	87.6	50.0 - 150	125394279
1,3-Dimethyl-2-nitrobenzene	1077817	LCS	5280	5000	ug/L	106	50.0 - 150	125394281
1,3-Dimethyl-2-nitrobenzene	1077817	LCS Dup	4670	5000	ug/L	93.4	50.0 - 150	125394280
p-Terphenyl-d14	1077817	Blank	5000	5000	ug/L	100	50.0 - 150	125394279
p-Terphenyl-d14	1077817	LCS	5000	5000	ug/L	100	50.0 - 150	125394281
p-Terphenyl-d14	1077817	LCS Dup	5000	5000	ug/L	100	50.0 - 150	125394280
Triphenylphosphate	1077817	Blank	4940	5000	ug/L	98.8	50.0 - 150	125394279
Triphenylphosphate	1077817	LCS	2030	5000	ug/L	40.6 *	50.0 - 150	125394281
Triphenylphosphate	1077817	LCS Dup	5480	5000	ug/L	110	50.0 - 150	125394280
1,3-Dimethyl-2-nitrobenzene	2220405	Unknown	4.23	4.99	ug/L	84.8	50.0 - 150	125394283
p-Terphenyl-d14	2220405	Unknown	4.99	4.99	ug/L	100	50.0 - 150	125394283
Triphenylphosphate	2220405	Unknown	2.46	4.99	ug/L	49.3 *	50.0 - 150	125394283

Analytical Set

1080001

EPA 515.1 4

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
2,4 Dichlorophenoxyacetic acid	1077851	0.263	0.0389	0.500	ug/L	125401029
2,4,5-TP (Silvex)	1077851	ND	0.0217	0.500	ug/L	125401029
Dalapon (dichloropropionic acid)	1077851	1.22	0.197	2.00	ug/L	125401029
Dinoseb	1077851	0.113	0.0727	0.500	ug/L	125401029
Pentachlorophenol	1077851	ND	0.040	0.500	ug/L	125401029
Picloram	1077851	ND	0.0213	0.500	ug/L	125401029

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
2,4 Dichlorophenoxyacetic acid	50.2	50.0	ug/L	100	70.0 - 130	125401012
2,4 Dichlorophenoxyacetic acid	49.9	50.0	ug/L	99.7	70.0 - 130	125401026
2,4 Dichlorophenoxyacetic acid	44.1	50.0	ug/L	88.3	70.0 - 130	125401034
2,4 Dichlorophenoxyacetic acid	119	50.0	ug/L	238	70.0 - 130 *	125402204
2,4 Dichlorophenoxyacetic acid	123	50.0	ug/L	245	70.0 - 130 *	125402211



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Parameter	Reading	Known	Units	Recover%	Limits%	File
2,4,5-TP (Silvex)	50.9	50.0	ug/L	102	70.0 - 130	125401012
2,4,5-TP (Silvex)	40.4	50.0	ug/L	80.8	70.0 - 130	125401026
2,4,5-TP (Silvex)	45.7	50.0	ug/L	91.4	70.0 - 130	125401034
2,4,5-TP (Silvex)	55.3	50.0	ug/L	111	70.0 - 130	125402204
2,4,5-TP (Silvex)	62.0	50.0	ug/L	124	70.0 - 130	125402211
Dalapon (dichloropropionic acid)	54.2	50.0	ug/L	108	70.0 - 130	125401012
Dalapon (dichloropropionic acid)	55.8	50.0	ug/L	112	70.0 - 130	125401026
Dalapon (dichloropropionic acid)	49.0	50.0	ug/L	98.0	70.0 - 130	125401034
Dalapon (dichloropropionic acid)	69.7	50.0	ug/L	139	70.0 - 130 *	125402204
Dalapon (dichloropropionic acid)	89.5	50.0	ug/L	179	70.0 - 130 *	125402211
Dinoseb	51.8	50.0	ug/L	104	70.0 - 130	125401012
Dinoseb	40.2	50.0	ug/L	80.4	70.0 - 130	125401026
Dinoseb	43.8	50.0	ug/L	87.6	70.0 - 130	125401034
Dinoseb	41.1	50.0	ug/L	82.3	70.0 - 130	125402204
Dinoseb	43.0	50.0	ug/L	85.9	70.0 - 130	125402211
Pentachlorophenol	50.2	50.0	ug/L	100	70.0 - 130	125401012
Pentachlorophenol	50.8	50.0	ug/L	102	70.0 - 130	125401026
Pentachlorophenol	54.7	50.0	ug/L	109	70.0 - 130	125401034
Pentachlorophenol	52.9	50.0	ug/L	106	70.0 - 130	125402204
Pentachlorophenol	59.6	50.0	ug/L	119	70.0 - 130	125402211
Picloram	48.1	50.0	ug/L	96.1	70.0 - 130	125401012
Picloram	53.4	50.0	ug/L	107	70.0 - 130	125401026
Picloram	58.1	50.0	ug/L	116	70.0 - 130	125401034
Picloram	51.2	50.0	ug/L	102	70.0 - 130	125402204
Picloram	57.0	50.0	ug/L	114	70.0 - 130	125402211

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
2,4 Dichlorophenoxyacetic acid	1077851	0.803	0.326	1.00	10.4 - 212	80.3	32.6	ug/L	84.5 *	30.0
2,4,5-TP (Silvex)	1077851	0.975	0.857	1.00	8.62 - 229	97.5	85.7	ug/L	12.9	30.0
Dalapon (dichloropropionic acid)	1077851	0.0898	0.173	1.00	0.100 - 196	8.98	17.3	ug/L	63.3 *	30.0
Dinoseb	1077851	0.420	0.299	1.00	0.100 - 203	42.0	29.9	ug/L	33.7 *	30.0
Pentachlorophenol	1077851	0.985	0.872	1.00	1.09 - 209	98.5	87.2	ug/L	12.2	30.0
Picloram	1077851	0.943	0.601	1.00	0.100 - 211	94.3	60.1	ug/L	44.3 *	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid	1077851	Blank	145	100	ug/L	145 *	70.0 - 130	125401029
2,4-Dichlorophenylacetic Acid	1077851	LCS	82.2	100	ug/L	82.2	70.0 - 130	125401030
2,4-Dichlorophenylacetic Acid	1077851	LCS Dup	72.9	100	ug/L	72.9	70.0 - 130	125401031
2,4-Dichlorophenylacetic Acid	2220405	Unknown	1.54	0.981	ug/L	157 *	70.0 - 130	125401033

Analytical Set 1076081

SM 2130 B-2011

AWRL/MRL C

Parameter	Reading	Known	Units	Recover%	Limits%	File
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QUALITY CONTROL



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Project
1068748

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AWRL/MRL C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	0.300	0.300	NTU	100	70.0 - 130	125305801

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Turbidity	1076081	0.0	0.300	0.300	NTU	125305799

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Turbidity	2220273	ND	ND	NTU		20.0
Turbidity	2220402	82.6	82.5	NTU	0.121	20.0

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Turbidity	2220273	36.0	ND	40.0	NTU	90.0	70.0 - 130	125305805
Turbidity	2220402	148	82.5	80.0	NTU	81.9	70.0 - 130	125305817

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Turbidity	1076081	9.96	10.0	NTU	99.6	90.0 - 110	125305800
Turbidity	1076081	99.8	100	NTU	99.8	90.0 - 110	125305802

Analytical Set 1076335

SM 2510 B-2011

AWRL/MRL C

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lab Spec. Conductance at 25 C	0.815	0.870	umhos/cm	93.7	70.0 - 130	125310986

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Lab Spec. Conductance at 25 C	1076335	0.899			umhos/cm	125310983

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Lab Spec. Conductance at 25 C	2220321	4430	4390	umhos/cm	0.907	20.0
Lab Spec. Conductance at 25 C	2220360	4500	4470	umhos/cm	0.669	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lab Spec. Conductance at 25 C	13000	12900	umhos/cm	101	90.0 - 110	125310987

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Lab Spec. Conductance at 25 C	1076335	1420	1410	umhos/cm	101	90.0 - 110	125310984
Lab Spec. Conductance at 25 C	1076335	101	100	umhos/cm	101	90.0 - 110	125310985
Lab Spec. Conductance at 25 C	1076335	1420	1410	umhos/cm	101	90.0 - 110	125310999
Lab Spec. Conductance at 25 C	1076335	1420	1410	umhos/cm	101	90.0 - 110	125311007

Analytical Set 1076380

SM 4500-H+ B-2011



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Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Laboratory pH	2219568	7.40	7.30	SU	1.36	20.0
Laboratory pH	2220150	7.20	7.20	SU	0	20.0

Standard

<u>Parameter</u>	<u>Sample</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Laboratory pH	1076380	7.00	7.00	SU	100	90.0 - 110	125311458
Laboratory pH	1076380	4.00	4.00	SU	100	90.0 - 110	125311459
Laboratory pH	1076380	10.0	10.0	SU	100	90.0 - 110	125311460
Laboratory pH	1076380	6.00	6.00	SU	100	90.0 - 110	125311461
Laboratory pH	1076380	8.00	8.00	SU	100	90.0 - 110	125311462
Laboratory pH	1076380	6.00	6.00	SU	100	90.0 - 110	125311474
Laboratory pH	1076380	8.00	8.00	SU	100	90.0 - 110	125311475
Laboratory pH	1076380	6.00	6.00	SU	100	90.0 - 110	125311487
Laboratory pH	1076380	8.00	8.00	SU	100	90.0 - 110	125311488

Analytical Set **1076381**

SM 2150 B

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Odor	1076381	Odor Free	1.0	1.0	TON	125311454

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Odor	2220406	None Obs	None Obser	TON		20

Analytical Set **1076382**

SM 5540 C-2000

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
MBAS (Surfactant/Foaming Agents)	1076382	ND	0.200	0.200	mg/L	125311490

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
MBAS (Surfactant/Foaming Agents)	2220403	ND	ND	mg/L		20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
MBAS (Surfactant/Foaming Agents)	1076382	10.3	10.0	mg/L	103	85.0 - 115	125311491

Analytical Set **1076520**

SM 2120 B-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Color	1076520	<5	5.0	5.0	PtCo Units	125317432

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Color	2220403	45	45	PtCo Units	0	20



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Analytical Set **1076767**

SM 4500-CIO2-2000

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chlorine Dioxide	2218112	ND	ND	mg/L		20.0

Analytical Set **1077192**

SM 5220 D-2011

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Chemical Oxygen Demand	396	400	mg/L	99.0	90.0 - 110	125334035

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chemical Oxygen Demand	2220519	38.9	38.9	mg/L	0	20.0
Chemical Oxygen Demand	2220550	27.4	27.4	mg/L	0	20.0

LCS

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits</u>	<u>File</u>
Chemical Oxygen Demand	1077192	196	200	mg/L	98.0	90.0 - 110	125334036

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Chemical Oxygen Demand	2220519	213	38.9	200	mg/L	87.0	80.0 - 120	125334039
Chemical Oxygen Demand	2220550	205	27.4	200	mg/L	88.8	80.0 - 120	125334051

Analytical Set **1077314**

SM 4500-P E-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Phosphorus (as P), total	1077314	ND	0.010	0.010	mg/L	125337900

CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Phosphorus (as P), total	0.291	0.300	mg/L	97.0	90.0 - 110	125337901
Phosphorus (as P), total	0.290	0.300	mg/L	96.7	90.0 - 110	125337916
Phosphorus (as P), total	0.296	0.300	mg/L	98.7	90.0 - 110	125337929

LCS Dup

<u>Parameter</u>	<u>PrepSet</u>	<u>LCS</u>	<u>LCSD</u>	<u>Known</u>	<u>Limits%</u>	<u>LCS%</u>	<u>LCSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	1077314	0.295	0.296	0.300	80.0 - 120	98.3	98.7	mg/L	0.338	20.0

MSD

<u>Parameter</u>	<u>Sample</u>	<u>MS</u>	<u>MSD</u>	<u>UNK</u>	<u>Known</u>	<u>Limits</u>	<u>MS%</u>	<u>MSD%</u>	<u>Units</u>	<u>RPD</u>	<u>Limit%</u>
Phosphorus (as P), total	2220819	0.242	0.249	0.115	0.150	70.0 - 130	84.7	89.3	mg/L	5.36	20.0
Phosphorus (as P), total	2221547	0.336	0.342	0.186	0.150	70.0 - 130	100	104	mg/L	3.92	20.0

Analytical Set **1077665**

SM 2320 B-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Total Alkalinity (as CaCO3)	1077665	ND	1.00	1.00	mg/L	125345440



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CCV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	26.6	25.0	mg/L	106	90.0 - 110	125345439
Total Alkalinity (as CaCO3)	24.2	25.0	mg/L	96.8	90.0 - 110	125345453
Total Alkalinity (as CaCO3)	26.6	25.0	mg/L	106	90.0 - 110	125345466

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Total Alkalinity (as CaCO3)	2220283	51.8	53.2	mg/L	2.67	20.0
Total Alkalinity (as CaCO3)	2220659	85.2	84.2	mg/L	1.18	20.0

ICV

<u>Parameter</u>	<u>Reading</u>	<u>Known</u>	<u>Units</u>	<u>Recover%</u>	<u>Limits%</u>	<u>File</u>
Total Alkalinity (as CaCO3)	24.2	25.0	mg/L	96.8	90.0 - 110	125345438

Mat. Spike

<u>Parameter</u>	<u>Sample</u>	<u>Spike</u>	<u>Unknown</u>	<u>Known</u>	<u>Units</u>	<u>Recovery %</u>	<u>Limits %</u>	<u>File</u>
Total Alkalinity (as CaCO3)	2220283	72.1	53.2	25.0	mg/L	75.6	70.0 - 130	125345443
Total Alkalinity (as CaCO3)	2220659	109	84.2	25.0	mg/L	99.2	70.0 - 130	125345456

Analytical Set **1077931**

SM 4500-CI F-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cl2 Residual,Total(Lab)Titration	1077931	ND	0.100	0.100	mg/L	125353192

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cl2 Residual,Total(Lab)Titration	2220402	ND	ND	mg/L		20.0

Analytical Set **1077934**

SM 4500-CI F-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Cl2 Residual,Free(Lab)Titration	1077934	ND	0.100	0.100	mg/L	125353338

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Cl2 Residual,Free(Lab)Titration	2220405	ND	ND	mg/L		20.0

Analytical Set **1077936**

SM 4500-CI F-2011

Blank

<u>Parameter</u>	<u>PrepSet</u>	<u>Reading</u>	<u>MDL</u>	<u>MQL</u>	<u>Units</u>	<u>File</u>
Chloramines (Lab Titration)	1077936	ND	0.100	0.100	mg/L	125353342

Duplicate

<u>Parameter</u>	<u>Sample</u>	<u>Result</u>	<u>Unknown</u>	<u>Unit</u>	<u>RPD</u>	<u>Limit%</u>
Chloramines (Lab Titration)	2220405	ND	ND	mg/L		20.0

* Out RPD is Relative Percent Difference: $\text{abs}(r1-r2) / \text{mean}(r1,r2) * 100\%$

Recover% is Recovery Percent: $\text{result} / \text{known} * 100\%$



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Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); AWRL/MRL C - Ambient Water Reporting Limit/Minimum Reporting Limit Check Std; CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); ICV - Initial Calibration Verification; BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes **ANSI/ASQC E4, 1994, Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); LDR Linear Dynamic Range Standard; MRL Check - Minimum Reporting Limit Check Std; MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



1068748 CoC Print Group 001 of 001

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P-UP FEE \$ 0.0 TT
SUB:
ALL CLIENT COCs ON SINGLE PROJECT? YES NO



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CHAIN OF CUSTODY

SPACE X
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
156

Lab Number 2220405
PO Number Qily STARBASE PO invoices bt
Phone 956/543-6688

Water / EPA Primary RETENTION

Hand Delivered by Client to Region or LAB

Matrix: Drinking Water

Sample Collection Start

Date: 8-6-23 Time: 22:00

Sampler Printed Name: Jaime Salinas - SPL, Inc.

Sampler Affiliation: SPL

Sampler Signature: Jaime Salinas

Samples Radioactive? Samples Contains Dioxin? Samples Biological Hazard?

On Site Testing

MLAC C12b Chlorine Residual (Onsite/TC) SM 4500-Cl G-2011

Chlorine Residual (Onsite/TC)

Collected By JAS Date 8-6-23 Time 22:00 Analyzed By JAS Date 8-6-23 Time 22:05

Results 0.0 Units mg/L Temp. 29.6 °C Duplicate 0.0 Units mg/L Temp. 29.6 °C

R1 0.0 R2 0.0 QC R1 0.0 QC R2 0.0

CLCk Field C12 Check for CNa

Field C12 Check for CNa

Collected By JAS Date 8-6-23 Time 22:00 Analyzed By JAS Date 8-6-23 Time 22:05

Results NEGATIVE Units --- Temp. --- °C Duplicate NEGATIVE Units --- Temp. --- °C

R1 --- R2 --- QC R1 --- QC R2 ---

SZCk Field Sample Check for CNa



RGV Region: 2401 Village Dr. Suite C Brownsville, TX 78521

1068748 CoC Print Group 001 of 001

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CHAIN OF CUSTODY

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TBLK Trip Blank Required

Trip Blank Required *N/A*

Collected By _____ Date _____ Time _____ Analyzed By _____ Date _____ Time _____

1 HNO3 to pH <2 Polyethylene 500 mL for Metals

NELAC	*AsM	Arsenic, total	EPA 200.8.5.4 CAS:7440-38-2 (180 days)
NELAC	*BaM	Barium, total	EPA 200.8.5.4 CAS:7440-39-3 (180 days)
NELAC	*BeM	Beryllium, total	EPA 200.8.5.4 CAS:7440-41-7 (180 days)
NELAC	*CdM	Cadmium, total	EPA 200.8.5.4 CAS:7440-43-9 (180 days)
NELAC	*CrM	Chromium, total	EPA 200.8.5.4 CAS:7440-47-3 (180 days)
NELAC	*CuM	Copper, total	EPA 200.8.5.4 CAS:7440-50-8 (180 days)
NELAC	*Hg	Mercury, total	EPA 245.1.3 CAS:7439-97-6 (28.0 days)
NELAC	*PbM	Lead, total	EPA 200.8.5.4 CAS:7439-92-1 (180 days)
NELAC	*SbM	Antimony, total	EPA 200.8.5.4 CAS:7440-36-0 (180 days)
NELAC	*SeM	Selenium, total	EPA 200.8.5.4 CAS:7782-49-2 (180 days)
NELAC	*TlM	Thallium, total	EPA 200.8.5.4 CAS:7440-28-0 (180 days)
	301L	Lead-Acid Digestion	EPA 200.2.2.8 (180 days)
NELAC	747L	Mercury Digestion	EPA 245.1.3 (28.0 days)

6 Na2S2O3 (0.008%) Glass 40 mL vial w/Teflon lined lid (zero headspace)

NELAC	IGPS	IGPS (0.008%)	EPA 747 (14.0 days)
	S04X	S04X (0.008%)	EPA 747 (14.0 days)
NELAC	Short Hold	M504	EPA 504.1.1 (1.00 days)

7 Glass vial 40 mL w/ Teflon lined lid (2)

	IAcr	IAcr	EPA 200.6.1 (7.00 days)
--	------	------	-------------------------

8 Na2SO3 (50mg) Glass Liter (amber)



1068748 CoC Print Group 001 of 001

2600 Dudley Rd., Kilgore, Texas 75662
 R: PO Box 3275 Kilgore, TX 75663
 Office: 903-984-0551 * Fax: 903-984-5914



CHAIN OF CUSTODY

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SPACE X
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78801

SPAC-R
156

NELAC	SEPs	Space Exploration Technologies	SA 525.2.2 (14.0 days)
NELAC	M515	Space Exploration Technologies	SA 515.1.4 (14.0 days)
1 HAA5 .025 NH4Cl Glass Amber 250 - Min Headspace			
NELAC	HAA	Space Exploration Technologies	SA 517.1.1 (14.0 days)
2 EDA Preserved 250 Amber Plastic			
NELAC	IBal	Space Exploration Technologies	SA 519.1.1 (14.0 days)
NELAC	ICIL	Space Exploration Technologies	SA 520.1.1 (14.0 days)
3 Monochloroacetic acid buffer- 60 ml vial			
NELAC	MOCE	Space Exploration Technologies	SA 521.1.1 (14.0 days)
4 Polyethylene 1/2 gal (White)			
NELAC	FIL	Space Exploration Technologies	SA 506.0.2.1 (2.00 days)
NELAC Short Hold	IN2W	Space Exploration Technologies	SA 506.0.2.1 (2.00 days)
NELAC Short Hold	IN3W	Space Exploration Technologies	SA 506.0.2.1 (2.00 days)
NELAC Short Hold	C2FL	Space Exploration Technologies	SA 457.0.1.1 (2.00 days)
Short Hold	ChIA	Space Exploration Technologies	SA 459.0.1.1 (2.00 days)
NELAC Short Hold	ClZi	Space Exploration Technologies	SA 459.0.1.1 (2.00 days)
	ClDi	Space Exploration Technologies	SA 459.0.1.1 (2.00 days)
Short Hold	TURB	Space Exploration Technologies	SA 2.30.0.1 (2.00 days)
5 Ascorbic Acid - 60ml vial (Zero Headspace)			
NELAC	VDWX	Space Exploration Technologies	SA 524.1.1 (14.0 days)

DW Volatiles Dechlorination Vial *N/A*

Collected By _____ Date _____ Time _____ Analyzed By _____ Date _____ Time _____

6 NaOH to pH >12 Polyethylene 250 ml/amber			
NELAC	CNA	Space Exploration Technologies	SA 450.0.1.1 (2.00 days)



1068748 CoC Print Group 001 of 001

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CHAIN OF CUSTODY

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SPACEX
 Rodolfo Longoria
 Space Exploration Technologies
 1 Rocket Rd
 Brownsville, TX 78521

SPAC-R
156

NLAC CNA SVI 4500-CN (12/31/16 +14.0 days)
 NLAC CNCI SVI 4510-CN (12/31/16 +14.0 days)

Ambient Conditions/Comments

Date	Time	Relinquished	Received
		Printed Name: Jaime Salinas - SPL, Inc. Affiliation: SPL, Inc. Signature: <i>[Signature]</i>	Printed Name: FED EX Affiliation: FED EX Signature: <i>[Signature]</i>
8-7-23	17:30	Printed Name: FED EX Affiliation: FED EX Signature: <i>[Signature]</i>	Printed Name: Kathy Jarver SPL, Inc. Affiliation: SPL, Inc. Signature: <i>[Signature]</i>
8/16/23	1030	Printed Name: Affiliation: Signature: <i>[Signature]</i>	Printed Name: Affiliation: Signature: <i>[Signature]</i>
		Printed Name: Affiliation: Signature: <i>[Signature]</i>	Printed Name: Affiliation: Signature: <i>[Signature]</i>

Sample Received on Ice? Yes No
 Cooler/Sample Secure? Yes No If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAP, or Z - not listed under scope of accreditation. ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement (available for download from the welcome page at <http://www.ana-lab.com>). ANA-Lab personnel collect samples as specified by Ana-Lab SOP# 00323.

Comments



1
2
3
4

1068748 CoC Print Group 001 of 001

FedEx

ORIGIN ID: NLR 555 555-5555
 ANA LAB, RGV
 2401 VILLAGE DR STE C
 BROWNSVILLE, TX 78521
 UNITED STATES US

SHIP DATE: 07AUG23
 ACTWT: 67.70 LB
 CRD: 6884257/S5FE2422
 DIMS: 24x14x13 IN
 BILL THIRD PARTY

TO LOGIN
 ANA LAB
 2600 DUDLEY RD
 KILGORE TX 75662

(603) 884-0661 REF: DEPT:

818 1032 dlk
 Date Time Tech
 Temp: 0.4 10.7 C

Therm#: 6443 Corr Fact: 0.0 C

1 of 3
 TRK# 0200 8171 3103 9271
 ## MASTER ##
XA QGGA

TX - 08 AUG 10:30A
 PRIORITY OVERNIGHT
 AHS
 75662
 TX-US SHV





TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY

P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

TPDES PERMIT NO.
WQ0005462000
*[For TCEQ office use only -
EPA I.D. No. TX0146251]*

Space Exploration Technologies Corp.

whose mailing address is

1 Rocket Road
Brownsville, Texas 78521

is authorized to treat and discharge wastes from Starbase Launch Pad Site, serves as site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicles (SIC 3761)

located on the south side of the eastern terminus of State Highway 4, near the City of Brownsville, Cameron County, Texas 78521

to tidal wetlands, thence to Rio Grande Tidal in Segment No. 2301 of the Rio Grande Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, five years from the date of permit issuance.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Numbers 001 and 002

- During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge deluge water (used for launch and return to launch site activities), facility washdown water, and stormwater ¹ subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report MGD	Report MGD	N/A	1/day ²	Estimate
Chemical Oxygen Demand	Report	200	200	1/day ²	Grab
Oil & Grease	Report	15	15	1/day ²	Grab
Temperature ³	N/A	Report °F	N/A	1/month ^{2, 4}	Instantaneous
Total Copper ³	N/A	Report	N/A	1/quarter ^{2, 5}	Grab
Total Mercury ³	N/A	Report	N/A	1/quarter ^{2, 5}	Grab
Total Thallium ³	N/A	Report	N/A	1/quarter ^{2, 5}	Grab
Total Zinc ³	N/A	Report	N/A	1/quarter ^{2, 5}	Grab

¹ Includes specific non-stormwater wastestreams. See Other Requirement No. 6.

² When discharge via outfall occurs.

³ Effective beginning upon date of permit issuance and lasting for a period of 58 months.

⁴ In months that a launch event occurs, sampling shall be conducted within one (1) hour following the conclusion of the launch event and after it is deemed safe for sampling personnel to enter the sampling location.

⁵ In quarters that a launch event occurs, sampling shall be conducted within one (1) hour following the conclusion of the launch event and after it is deemed safe for sampling personnel to enter the sampling location. See Other Requirement No. 11.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Numbers 001 and 002

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day, by grab sample, when discharge via outfall occurs.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following locations.
 - Outfall 001: from Launch Tower 1 (east) to mudflats located immediately outside of the containment area and approximately 290 feet southwest of the Launch Tower 1, at the bottom southern edge of the containment wall and retention pond; and
 - Outfall 002: from Launch Tower 2 (west) to tidal wetlands located immediately outside of the containment area and approximately 100 feet southwest of Launch Tower 2, at the southern edge of the launch pad.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total

mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

The "daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as $(\text{Flow, MGD} \times \text{Concentration, mg/L} \times 8.34)$.
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).
 - b. Grab sample - an individual sample collected in less than 15 minutes.
4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
 6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TWC Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time, and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement;
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the regional office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. unauthorized discharges as defined in Permit Condition 2(g).
 - ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the regional office, orally or by facsimile transmission within 24 hours, and both the regional office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. one hundred micrograms per liter (100 µg/L);
 - ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. five hundred micrograms per liter (500 µg/L);
 - ii. one milligram per liter (1 mg/L) for antimony;
 - iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

- a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;
- b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. for the purpose of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW; and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. violation of any terms or conditions of this permit;
 - ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

- c. It shall not be a defense for a 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 the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or
 - ii. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
 - iii. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

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

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy.

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. volume of waste and date(s) generated from treatment process;
 - ii. volume of waste disposed of on-site or shipped off-site;
 - iii. date(s) of disposal;

- iv. identity of hauler or transporter;
- v. location of disposal site; and
- vi. method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

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OTHER REQUIREMENTS

1. The Executive Director reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and determined that the action is consistent with the applicable CMP goals and policies.
2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 15 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 15 and Compliance Monitoring Team (MC 224): None.
3. **MINIMUM ANALYTICAL LEVELS (MALs)**

Test methods used must be sufficiently sensitive enough to achieve a level of detection equal to or more sensitive than the specified MALs for the following parameter.

<u>Pollutant</u>	<u>MAL (mg/L)</u>
Copper (Total)	0.002
Mercury (Total)	0.000005
Thallium (Total)	0.0005
Zinc (Total)	0.005

When an analysis of an effluent sample for a pollutant listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero shall be used for that measurement when making calculations for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form:

“The reported value(s) of zero for [list pollutant(s)] on the self-reporting form for [monitoring period date range] is based on the following conditions: (1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and (2) the analytical results contained no detectable levels above the specified MAL.”

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

4. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.
5. There is no mixing zone for these discharges to a tidal wetland. Chronic toxic criteria apply at the point of discharge.
6. **ALLOWABLE NON-STORMWATER DISCHARGES**

Allowable non-stormwater discharges authorized for discharge are limited to the following, unless specific waste streams are identified on Page 2 of this permit:

- A. discharges from emergency fire-fighting activities (emergency fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);
- B. uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
- C. water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where solvents, detergents, and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
- D. uncontaminated water used to control dust;
- E. potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;
- F. uncontaminated air conditioning condensate;
- G. uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
- H. lawn watering and similar irrigation drainage.

7. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 15 Office of any changes in the method by which the facility obtains water for cooling purposes. This notification must be submitted 30 days prior to any such change and must include a description of the planned changes. The TCEQ may, upon review of the notification, reopen the permit to include additional terms and conditions as necessary.

8. ABOVE GROUND CONTAINMENT BASINS

The permittee shall maintain the above ground containment basins to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.

- A. The permittee shall inspect each above ground containment basins at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas-licensed professional engineer within 30 days. The permittee is not required to drain an operating containment basin during these routine inspections. A Texas-licensed professional engineer must evaluate damage to the above ground containment basin(s), including evidence of an unauthorized discharge without visible damage.

The above ground containment basin(s) must be repaired at the recommendation of a Texas-licensed professional engineer if the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas-licensed professional engineer. Within 60 days after a repair is completed, the repair certification must be provided to the TCEQ Region 15 office. A copy of the repair certification must be maintained at the

facility or in a reasonably accessible location and made available to the executive director upon request.

A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.

- B. The permittee shall maintain at least 2.0 feet of freeboard in the above ground containment basins except when:
- (1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;
 - (2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity for a limited period of time; or
 - (3) the above ground containment basin was not required to have at least 2.0 feet of freeboard according to normal operational requirements.

9. 100-YEAR FLOOD PROTECTION

All wastewater treatment and containment structures must be designed, constructed, and managed to protect against inundation from a 100-year frequency flood event.

10. Water sources for the facility operations include, but are not limited to, water from Brownsville Public Utilities Board, a public water system (PWS No. TX0310001). Additionally, it is acknowledged that wastewater and stormwater from facility operations are captured and stored in the two (2) above-ground water storage basins to be re-used for facility operations including, but not limited to, vehicle launch and return to launch site activities prior to discharge via Outfalls 001 and 002 and/or recaptured and routed to the two (2) above-ground water storage basins to be future reuse.
11. Monitoring results must be provided at the intervals specified in this permit. For pollutants which are monitored quarterly (four times per year), the first effluent report must be submitted three months after the date of permit issuance, and subsequent reports every three months thereafter.

12. RETEST REQUIREMENTS

Wastewater discharged via Outfalls 001 and 002 must be sampled and analyzed as directed below for those parameters listed in Tables 1, 2, and 3 of Attachment A of this permit. Analytical testing must be completed, as directed, for discharges resulting from four (4) launch events.

Results of the analytical testing must be submitted within 90 days of the latter of permit issuance or of the fourth (4th) qualified discharge event to the TCEQ Industrial Permits Team (MC 148) and Region 15 Office. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Table 1: Analysis is required for all pollutants in Table 1. Wastewater must be sampled and analyzed for those parameters listed in Table 1 for a minimum of four sampling events that are each at least one week apart and within one (1) hour after the conclusion of a launch event.

Table 2: Analysis is required for all pollutants in Table 2. Wastewater must be sampled and analyzed for those parameters listed in Table 2 for a minimum of four sampling events that are each at least one week apart and within one (1) hour after the conclusion of a launch event.

Table 3: For all pollutants listed in Table 3, the permittee shall indicate whether each pollutant is believed to be present or absent in the discharge. Sampling and analysis must be conducted for each pollutant believed present for a minimum of one sampling event within one (1) hour after the conclusion of a launch event.

The permittee shall report the flow at the respective outfall in MGD in the attachment. The permittee shall indicate on each table whether the samples are composite (C) or grab (G) by checking the appropriate box. Samples collected after July 1, 2023, may be used to satisfy this requirement.

Attachment A

Table 1 – Conventional and Non-conventionals

Outfall No.:	<input type="checkbox"/> C <input type="checkbox"/> G	Effluent Concentration (mg/L)				
		Samp.	Samp.	Samp.	Samp.	Average
Flow (MGD)						
BOD (5-day)						
CBOD (5-day)						
Chemical Oxygen Demand						
Total Organic Carbon						
Dissolved Oxygen						
Ammonia Nitrogen						
Total Suspended Solids						
Nitrate Nitrogen						
Total Organic Nitrogen						
Total Phosphorus						
Oil and Grease						
Total Residual Chlorine						
Total Dissolved Solids						
Sulfate						
Chloride						
Fluoride						
Total Alkalinity (mg/L as CaCO ₃)						
Temperature (°F)						
pH (Standard Units; min/max)						

Table 2 – Metals

Pollutant	Effluent Concentration (µg/L)¹					MAL² (µg/L)
	Samp.	Samp.	Samp.	Samp.	Average	
Aluminum, Total						2.5
Antimony, Total						5
Arsenic, Total						0.5
Barium, Total						3
Beryllium, Total						0.5
Cadmium, Total						1
Chromium, Total						3
Chromium, Hexavalent						3
Chromium, Trivalent						N/A
Copper, Total						2
Cyanide, Free						10
Lead, Total						0.5
Mercury, Total						0.005
Nickel, Total						2
Selenium, Total						5
Silver, Total						0.5
Thallium, Total						0.5
Zinc, Total						5.0

¹ Indicate units if different than µg/L.

² Minimum Analytical Level

Table 3

Outfall No.	<input type="checkbox"/> C <input type="checkbox"/> G	Believed Present	Believed Absent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	No. of Samples	MAL (mg/L)
Pollutant							
Bromide							0.400
Color (PCU)							—
Nitrate-Nitrite (as N)							—
Sulfide (as S)							—
Sulfite (as SO ₃)							—
Surfactants							—
Boron, total							0.020
Cobalt, total							0.0003
Iron, total							0.007
Magnesium, total							0.020
Manganese, total							0.0005
Molybdenum, total							0.001
Tin, total							0.005
Titanium, total							0.030

STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: Space Exploration Technologies Corp.; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005462000 (EPA I.D. No. TX0146251)

Regulated activity: Industrial wastewater permit

Type of application: New permit

Request: New permit

Authority: Federal Clean Water Act (CWA) §402; Texas Water Code (TWC) §26.027; 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, and Chapters 307 and 319; commission policies; and Environmental Protection Agency (EPA) guidelines

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit will expire at midnight, five years from the date of permit issuance according to the requirements of 30 TAC §305.127(1)(C)(i).

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit.

PROJECT DESCRIPTION AND LOCATION

The applicant currently operates the Starbase Launch Pad Site, a site for rocket launch activity of SpaceX Starship-Super Heavy launch vehicles.

The wastewater system consists of two (2) above-ground containment basins that capture deluge water used during vehicle launch and return to launch site activities. The captured water is stored and reused for various purposes at the facility. Discharge consists of excess deluge water not captured due to overspray, facility washdown water during maintenance events, and stormwater.

The facility is located on the south side of the eastern terminus of State Highway 4, near the City of Brownsville, Cameron County, Texas 78521.

Discharge Route and Designated Uses

The effluent is discharged to tidal wetlands, thence to Rio Grande Tidal in Segment No. 2301 of the Rio Grande Basin. The unclassified receiving water uses are high aquatic life use for the tidal wetlands. The designated uses for Segment No. 2301 are primary contact recreation and exceptional aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

Antidegradation Review

In accordance with 30 TAC §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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quality is expected in tidal wetlands, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only consider aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. Though the piping plover, *Charadrius melodus* Ord, can occur in Cameron County, the discharge is not to a watershed of high priority per Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Impaired Water Bodies

Segment No. 2301 is not currently listed on the state's inventory of impaired and threatened waters, the 2022 CWA §303(d) list.

Completed Total Maximum Daily Loads (TMDLs)

There are no completed TMDLs for Segment No. 2301.

Dissolved Oxygen

As summarized in the TCEQ Interoffice Memorandum dated July 23, 2024, due to intermittent nature of the discharge and the low levels of oxygen-demanding substances expected in the wastewaters from this facility, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result of this discharge.

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because this is a new permit application.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of deluge water (used for launch and return to launch site activities), facility washdown water, and stormwater on an intermittent and flow-variable basis via Outfalls 001 and 002.

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average	Daily Maximum
001 & 002	Flow	Report MGD	Report MGD
	Chemical Oxygen Demand	Report mg/L	200 mg/L
	Oil & Grease	Report mg/L	15 mg/L
	Temperature ¹	n/a	Report °F
	Total Copper ¹	n/a	Report mg/L
	Total Mercury ¹	n/a	Report mg/L

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Outfall	Pollutant	Daily Average	Daily Maximum
001 & 002	Total Thallium ¹	n/a	Report mg/L
	Total Zinc ¹	n/a	Report mg/L
	pH	6.0 SU (min)	9.0 SU

¹ Effective beginning upon date of permit issuance and lasting for a period of 58 months.

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	25.996058 N	97.155238 W
002	25.996186 N	97.158220 W

Technology-Based Effluent Limitations

Regulations in Title 40 of the Code of Federal Regulations (40 CFR) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for chemical oxygen demand, oil & grease, and pH are based on the standard limitations normally applied to instantaneous industrial stormwater discharges. These are indicator parameters of the quality of the discharge. Based on the presumption of the quality of the other contributing wastestreams being consistent with the quality of stormwater runoff of the facility, these limitations are imposed on the discharge of the commingled wastestreams via the designated outfalls. The monitoring/reporting requirement for flow is based on 40 CFR 122.44(i)(1)(ii).

Water Quality-Based Effluent Limitations

Calculations of water quality-based effluent limitations for the protection of aquatic life and human health are presented in Appendix A. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations, as are recommendations in the Water Quality Assessment Team's memorandum dated July 16, 2024. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

Data reported in Worksheet 2.0 of the application was incomplete because only two (2) rounds of sampling was submitted, and Worksheet 2.0 requires four (4) rounds of representative samples. A retest requirement (Other Requirement No. 12) is included in the draft permit that requires submittal of the complete four (4) rounds of sampling.

The partial submittal was screened against the calculated water quality-based effluent limitations as a preliminary review. With the following exceptions, reported analytical data from the preliminary review does not exceed 70 percent of the calculated daily average water quality based effluent limitation for aquatic life protection or human health protection.

- In the cases of total copper, total thallium, and total zinc two (2) analytical results were submitted for each parameter in Worksheet 2.0 of the application. In all cases, the result for one sample was below the screening level to not require any action in the permit, and the result

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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for the other sample exceeded the screening criteria to require effluent limitations to be placed in the permit.

- In the case of total mercury two (2) analytical results were submitted in Worksheet 2.0 of the application. The result of the first sample is listed as "113 ug/L" in the original Table 2 of Worksheet 2.0, however, a review of the submitted lab reports included the result of "<0.113 ug/L" which was corrected in the subsequently submitted updated Worksheet 2.0 of the application. The result of the second sample is listed as "0.139 ug/L" in both versions of Table 2 of Worksheet 2.0, however, a review of the submitted lab reports indicates that the result includes a "J flag" which denotes the analyte was detected below quantitation limit and makes the reported value unreliable. The level of detection for both samples were above the requirement minimum analytical level of 0.005 ug/L as listed in Appendix E of IPs.
- Worksheet 2.0 of the application included two measurements for temperature of 28.1 °C and 38 °C, which were inadvertently listed with the units of measure of °F. These measurements convert to 82.6 °F and 100.4 °F, respectively. Self-expiring monitoring/reporting requirement for temperature is included at Outfalls 001 and 002 for the purpose of gathering more data during the term of the permit to determine if any further action regarding temperature will be required during the next permit renewal action.

In all cases above, after a sufficient number of samples are collected and reviewed, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Total Dissolved Solids (TDS), Chloride, and Sulfate Screening

Segment No. 2301, which receives the discharges from this facility, does not have criteria established for TDS, chloride, or sulfate in 30 TAC Chapter 307; therefore, no screening was performed for TDS, chloride, or sulfate in the effluent.

pH Screening

The draft permit proposes pH limits of 6.0 – 9.0 SU at Outfall 001 and 002, which discharge into unclassified water bodies. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria. These limits are being proposed in the draft permit.

316(b) Cooling Water Intake Structures

The facility obtains water from Brownsville Public Utilities Board, a public water system (PWS No. TX0310001), for cooling purposes. The use of water obtained from a public water system for cooling purposes does not constitute the use of a cooling water intake structure; therefore, the facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

The facility may also utilize reclaimed effluent (TCEQ authorization No. 2E0000327) and reclaimed water from internal operations, as additional sources of water for cooling purposes. According to the rules applicable to cooling water intake structures (40 CFR § 125.91(c)), the use of reclaimed water (TCEQ authorization No. 2E0000327 and reclaimed water from internal operations) does not constitute the use of a cooling water intake structure; therefore, the facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

A provision, Other Requirement No. 7, is included in the draft permit and it requires the permittee to notify the TCEQ of any changes in the method by which cooling water is obtained. Upon receipt of

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such notification, the TCEQ may reopen the permit to include additional terms and conditions as necessary.

Whole Effluent Toxicity Testing (Biomonitoring)

Biomonitoring requirements are not included in the draft permit.

The discharges authorized by this permit do not meet the threshold established in the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194) to impose biomonitoring requirements.

SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

SUMMARY OF CHANGES FROM EXISTING PERMIT

This an application for a new permit.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on July 1, 2024, and additional information received on August 8, 2024.
2. TCEQ Rules.
3. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 1, 2018, as approved by EPA Region 6.
4. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.
5. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not approved by EPA Region 6.
6. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not approved by EPA Region 6.
7. *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA Region 6.
8. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.
9. Memos from the Standards Implementation Team and Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
10. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
11. EPA Effluent Guidelines: N/A.
12. Consistency with the Coastal Management Plan: The executive director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.
13. Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).

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14. Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).
15. Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures)
16. Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures).
17. General Guidance – Industrial Permits: Uncontaminated Stormwater Runoff, EPA, January 1997.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the chief clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent to the Chief Clerk, along with the Executive Director's preliminary decision contained in the technical summary or fact sheet. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case hearing.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ commissioners for their consideration at a scheduled commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the commission grants a contested case hearing as described above, the commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the commission will consider all public

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comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Michael Sunderlin at (512) 239-4523.

Michael Sunderlin
Michael Sunderlin

August 28, 2024
Date

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**Appendix A
Calculated Water Quality-Based Effluent Limits**

TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater Aquatic Life
Table 2, 2018 Texas Surface Water Quality Standards for Human Health
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	SPACE-X
TPDES Permit No:	WQ0005462000
Outfall No:	001
Prepared by:	SUNDERLIN
Date:	July 26, 2024

DISCHARGE INFORMATION

Receiving Waterbody:	Tidal Wetland
Segment No:	2301
TSS (mg/L):	24
Effluent Flow for Aquatic Life (MGD)	variable
% Effluent for Chronic Aquatic Life (Mixing Zone):	100
% Effluent for Acute Aquatic Life (ZID):	100
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	variable
% Effluent for Human Health:	100

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

<i>Estuarine Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Cadmium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	4.85	-0.72	7182	0.853		1.00	Assumed
Lead	6.06	-0.85	77058	0.351		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	68967	0.377		1.00	Assumed
Zinc	5.36	-0.52	43882	0.487		1.00	Assumed

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AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>WLA_a (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTA_a (µg/L)</i>	<i>LTA_c (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	1.30	N/A	0.416	N/A	0.611	1.29
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	149	78.0	47.7	47.6	69.9	147
Cadmium	40.0	8.75	40.0	8.75	12.8	5.34	7.84	16.5
Carbaryl	613	N/A	613	N/A	196	N/A	288	610
Chlordane	0.09	0.004	0.0900	0.00400	0.0288	0.00244	0.00358	0.00758
Chlorpyrifos	0.011	0.006	0.0110	0.00600	0.00352	0.00366	0.00517	0.0109
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	1090	49.6	349	30.3	44.4	94.0
Copper	13.5	3.6	15.8	4.22	5.06	2.57	3.78	8.00
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide (free)	5.6	5.6	5.60	5.60	1.79	3.42	2.63	5.57
4,4'-DDT	0.13	0.001	0.130	0.00100	0.0416	0.000610	0.000896	0.00189
Demeton	N/A	0.1	N/A	0.100	N/A	0.0610	0.0896	0.189
Diazinon	0.819	0.819	0.819	0.819	0.262	0.500	0.385	0.815
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	0.710	0.00200	0.227	0.00122	0.00179	0.00379
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.034	0.009	0.0340	0.00900	0.0109	0.00549	0.00807	0.0170
Endosulfan II (<i>beta</i>)	0.034	0.009	0.0340	0.00900	0.0109	0.00549	0.00807	0.0170
Endosulfan sulfate	0.034	0.009	0.0340	0.00900	0.0109	0.00549	0.00807	0.0170
Endrin	0.037	0.002	0.0370	0.00200	0.0118	0.00122	0.00179	0.00379
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0100	N/A	0.00610	0.00896	0.0189
Heptachlor	0.053	0.004	0.0530	0.00400	0.0170	0.00244	0.00358	0.00758
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	0.160	N/A	0.0512	N/A	0.0752	0.159
Lead	133	5.3	379	15.1	121	9.21	13.5	28.6
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00610	0.00896	0.0189
Mercury	2.1	1.1	2.10	1.10	0.672	0.671	0.986	2.08
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0183	0.0269	0.0569
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000610	0.000896	0.00189
Nickel	118	13.1	118	13.1	37.8	7.99	11.7	24.8
Nonylphenol	7	1.7	7.00	1.70	2.24	1.04	1.52	3.22
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	15.1	9.60	4.83	5.86	7.10	15.0
Phenanthrene	7.7	4.6	7.70	4.60	2.46	2.81	3.62	7.66
Polychlorinated Biphenyls [PCBs]	10	0.03	10.0	0.0300	3.20	0.0183	0.0269	0.0569
Selenium	564	136	564	136	180	83.0	121	258
Silver	2	N/A	5.31	N/A	1.70	N/A	2.49	5.28
Toxaphene	0.21	0.0002	0.210	0.000200	0.0672	0.000122	0.000179	0.000379
Tributyltin [TBT]	0.24	0.0074	0.240	0.00740	0.0768	0.00451	0.00663	0.0140
2,4,5 Trichlorophenol	259	12	259	12.0	82.9	7.32	10.7	22.7
Zinc	92.7	84.2	190	173	60.9	105	89.5	189

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HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	115	115	107	157	332
Aldrin	1.147E-05	0.0000115	0.0000107	0.0000156	0.0000331
Anthracene	1317	1317	1225	1800	3809
Antimony	1071	1071	996	1464	3097
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	581	540	794	1680
Benzidine	0.107	0.107	0.0995	0.146	0.309
Benzo(a)anthracene	0.025	0.0250	0.0233	0.0341	0.0723
Benzo(a)pyrene	0.0025	0.00250	0.00233	0.00341	0.00723
Bis(chloromethyl)ether	0.2745	0.275	0.255	0.375	0.793
Bis(2-chloroethyl)ether	42.83	42.8	39.8	58.5	123
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	7.55	7.02	10.3	21.8
Bromodichloromethane [Dichlorobromomethane]	275	275	256	375	795
Bromoform [Tribromomethane]	1060	1060	986	1449	3065
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	46.0	42.8	62.8	133
Chlordane	0.0025	0.00250	0.00233	0.00341	0.00723
Chlorobenzene	2737	2737	2545	3741	7916
Chlorodibromomethane [Dibromochloromethane]	183	183	170	250	529
Chloroform [Trichloromethane]	7697	7697	7158	10522	22262
Chromium (hexavalent)	502	502	467	686	1451
Chrysene	2.52	2.52	2.34	3.44	7.28
Cresols [Methylphenols]	9301	9301	8650	12715	26901
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.00200	0.00186	0.00273	0.00578
4,4'-DDE	0.00013	0.000130	0.000121	0.000177	0.000375
4,4'-DDT	0.0004	0.000400	0.000372	0.000546	0.00115
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	473	440	646	1368
1,2-Dibromoethane [Ethylene Dibromide]	4.24	4.24	3.94	5.79	12.2
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	595	553	813	1720
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	3299	3068	4510	9541
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	2.24	2.08	3.06	6.47
1,2-Dichloroethane	364	364	339	497	1052
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	55114	51256	75346	159406
Dichloromethane [Methylene Chloride]	13333	13333	12400	18227	38563
1,2-Dichloropropane	259	259	241	354	749
1,3-Dichloropropane [1,3-Dichloropropylene]	119	119	111	162	344
Dicofof [Kelthane]	0.30	0.300	0.279	0.410	0.867
Dieldrin	2.0E-05	0.0000200	0.0000186	0.0000273	0.0000578
2,4-Dimethylphenol	8436	8436	7845	11532	24399
Di- <i>n</i> -Butyl Phthalate	92.4	92.4	85.9	126	267
Dioxins/Furans [TCDD Equivalents]	7.97E-08	7.97E-08	7.41E-08	1.08E-07	2.30E-07
Endrin	0.02	0.0200	0.0186	0.0273	0.0578
Epichlorohydrin	2013	2013	1872	2751	5822

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Parameter	Fish Only Criterion (µg/L)	WLAh (µg/L)	LTAh (µg/L)	Daily Avg. (µg/L)	Daily Max. (µg/L)
Ethylbenzene	1867	1867	1736	2552	5399
Ethylene Glycol	1.68E+07	16800000	15624000	22967280	48590640
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.000100	0.0000930	0.000136	0.000289
Heptachlor Epoxide	0.00029	0.000290	0.000270	0.000396	0.000838
Hexachlorobenzene	0.00068	0.000680	0.000632	0.000929	0.00196
Hexachlorobutadiene	0.22	0.220	0.205	0.300	0.636
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.00840	0.00781	0.0114	0.0242
Hexachlorocyclohexane (<i>beta</i>)	0.26	0.260	0.242	0.355	0.751
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	0.341	0.317	0.466	0.986
Hexachlorocyclopentadiene	11.6	11.6	10.8	15.8	33.5
Hexachloroethane	2.33	2.33	2.17	3.18	6.73
Hexachlorophene	2.90	2.90	2.70	3.96	8.38
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	15982	14863	21848	46224
Lead	3.83	10.9	10.1	14.9	31.5
Mercury	0.0250	0.0250	0.0233	0.0341	0.0723
Methoxychlor	3.0	3.00	2.79	4.10	8.67
Methyl Ethyl Ketone	9.92E+05	992000	922560	1356163	2869161
Methyl <i>tert</i> -butyl ether [MTBE]	10482	10482	9748	14329	30317
Nickel	1140	1140	1060	1558	3297
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	1873	1742	2560	5417
N-Nitrosodiethylamine	2.1	2.10	1.95	2.87	6.07
N-Nitroso-di- <i>n</i> -Butylamine	4.2	4.20	3.91	5.74	12.1
Pentachlorobenzene	0.355	0.355	0.330	0.485	1.02
Pentachlorophenol	0.29	0.290	0.270	0.396	0.838
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.000640	0.000595	0.000874	0.00185
Pyridine	947	947	881	1294	2739
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	0.240	0.223	0.328	0.694
1,1,2-Tetrachloroethane	26.35	26.4	24.5	36.0	76.2
Tetrachloroethylene [Tetrachloroethylene]	280	280	260	382	809
Thallium	0.23	0.230	0.214	0.314	0.665
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.0110	0.0102	0.0150	0.0318
2,4,5-TP [Silvex]	369	369	343	504	1067
1,1,1-Trichloroethane	784354	784354	729449	1072290	2268587
1,1,2-Trichloroethane	166	166	154	226	480
Trichloroethylene [Trichloroethene]	71.9	71.9	66.9	98.2	207
2,4,5-Trichlorophenol	1867	1867	1736	2552	5399
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	16.5	15.3	22.5	47.7

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EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005462000**

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrolein	N/A	N/A
Aldrin	0.428	0.519
Aluminum	N/A	N/A
Arsenic	48.9	59.4
Cadmium	5.49	6.66
Carbaryl	201	245
Chlordane	0.00251	0.00304
Chlorpyrifos	0.00362	0.00439
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	31.1	37.8
Copper	2.64	3.21
Copper (oyster waters)	N/A	N/A
Cyanide (free)	1.84	2.23
4,4'-DDT	0.000627	0.000762
Demeton	0.0627	0.0762
Diazinon	0.269	0.327
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.00125	0.00152
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.00564	0.00685
Endosulfan II (<i>beta</i>)	0.00564	0.00685
Endosulfan sulfate	0.00564	0.00685
Endrin	0.00125	0.00152
Guthion [Azinphos Methyl]	0.00627	0.00762
Heptachlor	0.00251	0.00304
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.0526	0.0639
Lead	9.47	11.5
Malathion	0.00627	0.00762
Mercury	0.690	0.838
Methoxychlor	0.0188	0.0228
Mirex	0.000627	0.000762
Nickel	8.22	9.98
Nonylphenol	1.06	1.29
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	4.97	6.03
Phenanthrene	2.53	3.07
Polychlorinated Biphenyls [PCBs]	0.0188	0.0228
Selenium	85.3	103
Silver	1.74	2.12
Toxaphene	0.000125	0.000152
Tributyltin [TBT]	0.00464	0.00564
2,4,5 Trichlorophenol	7.53	9.14
Zinc	62.6	76.1

**STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrylonitrile	110	133
Aldrin	0.0000109	0.0000133
Anthracene	1260	1530
Antimony	1024	1244
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	555	675
Benzidine	0.102	0.124
Benzo(a)anthracene	0.0239	0.0290
Benzo(a)pyrene	0.00239	0.00290
Bis(chloromethyl)ether	0.262	0.318
Bis(2-chloroethyl)ether	40.9	49.7
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.22	8.77
Bromodichloromethane [Dichlorobromomethane]	263	319
Bromoform [Tribromomethane]	1014	1231
Cadmium	N/A	N/A
Carbon Tetrachloride	44.0	53.4
Chlordane	0.00239	0.00290
Chlorobenzene	2619	3180
Chlorodibromomethane [Dibromochloromethane]	175	212
Chloroform [Trichloromethane]	7365	8944
Chromium (hexavalent)	480	583
Chrysene	2.41	2.92
Cresols [Methylphenols]	8900	10808
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00191	0.00232
4,4'-DDE	0.000124	0.000151
4,4'-DDT	0.000382	0.000464
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	452	549
1,2-Dibromoethane [Ethylene Dibromide]	4.05	4.92
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	569	691
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3157	3833
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	2.14	2.60
1,2-Dichloroethane	348	422
1,1-Dichloroethylene [1,1-Dichloroethene]	52742	64044
Dichloromethane [Methylene Chloride]	12759	15493
1,2-Dichloropropane	247	300
1,3-Dichloropropene [1,3-Dichloropropylene]	113	138
Dicofol [Kelthane]	0.287	0.348
Dieldrin	0.0000191	0.0000232
2,4-Dimethylphenol	8072	9802
Di- <i>n</i> -Butyl Phthalate	88.4	107
Dioxins/Furans [TCDD Equivalents]	7.62E-08	9.26E-08
Endrin	0.0191	0.0232
Epichlorohydrin	1926	2339
Ethylbenzene	1786	2169
Ethylene Glycol	16077096	19522188
Fluoride	N/A	N/A

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Heptachlor	0.0000956	0.000116
Heptachlor Epoxide	0.000277	0.000336
Hexachlorobenzene	0.000650	0.000790
Hexachlorobutadiene	0.210	0.255
Hexachlorocyclohexane (<i>alpha</i>)	0.00803	0.00976
Hexachlorocyclohexane (<i>beta</i>)	0.248	0.302
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.326	0.396
Hexachlorocyclopentadiene	11.1	13.4
Hexachloroethane	2.22	2.70
Hexachlorophene	2.77	3.36
4,4'-Isopropylidenediphenol [Bisphenol A]	15294	18571
Lead	10.4	12.6
Mercury	0.0239	0.0290
Methoxychlor	2.87	3.48
Methyl Ethyl Ketone	949314	1152738
Methyl <i>tert</i> -butyl ether [MTBE]	10030	12180
Nickel	1090	1324
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	1792	2176
N-Nitrosodiethylamine	2.00	2.44
N-Nitroso-di- <i>n</i> -Butylamine	4.01	4.88
Pentachlorobenzene	0.339	0.412
Pentachlorophenol	0.277	0.336
Polychlorinated Biphenyls [PCBs]	0.000612	0.000743
Pyridine	906	1100
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.229	0.278
1,1,2,2-Tetrachloroethane	25.2	30.6
Tetrachloroethylene [Tetrachloroethylene]	267	325
Thallium	0.220	0.267
Toluene	N/A	N/A
Toxaphene	0.0105	0.0127
2,4,5-TP [Silvex]	353	428
1,1,1-Trichloroethane	750603	911446
1,1,2-Trichloroethane	158	192
Trichloroethylene [Trichloroethene]	68.8	83.5
2,4,5-Trichlorophenol	1786	2169
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	15.7	19.1