



Administrative Package Cover Page

This file contains the following documents:

1. Summary of application (in plain language)
 - English
 - Alternative Language (Spanish)
 2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
 - English
 - Alternative Language (Spanish)
 3. Application materials
-



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
 - Inglés
 - Idioma alternativo (español)
2. Primer aviso (NORI, por sus siglas en inglés)
 - Inglés
 - Idioma alternativo (español)
3. Solicitud original



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.

Gladieux Metals Recycling, LLC. (GMR) (CN605364843) operates Gladieux Metals Recycling (RN100210129), a metals recycling facility. The facility is located at 302 Midway Road, in Freeport, Brazoria County, Texas 77542. GMR is submitting a renewal application to its TPDES permit to discharge up to 300,000 gallons per day of treated wastewater via Outfall 001 and up to 2.2 million gallons per day of stormwater via Outfall 002.

Discharges from the facility are expected to contain molybdenum oxide, vanadium oxide, cobalt/nickel alloy, and fused alumina. Cooling water will be treated by cooling towers and dedicated holding ponds.

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

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen es proporcionado para la aplicación pendiente para esta solicitud del permiso de calidad del agua que esta siendo revisada por la Comisión de Calidad Ambiental de Texas (por sus siglas en ingles TCEQ) como es requerido por el Código Administrativo de Texas 30, capítulo 39. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la aplicación y no es una representación federal ejecutiva del permiso de la aplicación.

Gladieux Metals Recycling, LLC (GMR)(CN605364843) que es operada por Gladieux Metals Recycling (RN100210129) una instalación de metales reciclables. La instalación esta ubicada en 302 Midway Road, en Freeport, Brazoria, County, Texas 77542. GMR esta entregando esta aplicación para la renovación del permiso de Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES), para la descarga de hasta 300,00 galones por día de aguas residuales tratadas vía desagüe 001 y hasta 2.2 millones de galones por día de aguas pluviales vía desagüe 002.

Las descargas de la instalación se espera que contengan oxido de molibdeno, oxido de vanadio, aleación de cobalto/ níquel y alúmina fundida. El agua de refrigeración será tratada mediante las torres de enfriamiento y por los estanques de retención exclusivos

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT RENEWAL

PERMIT NO. WQ0001861000

APPLICATION. Gladieux Metals Recycling, LLC, 302 Midway Road, Freeport, Texas 77541, which owns a commercial industrial and hazardous waste management facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001861000 (EPA I.D. No. TX0034738) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 350,000 gallons per day via Outfall 001, and the discharge of stormwater on an intermittent and flow-variable rate via Outfall 002. The facility is located at 302 Midway Road, in the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site via Outfall 001 to the Dow Chemical Plant "A" Canal; thence to the Brazos River Tidal; and via Outfall 002 to an unnamed drainage ditch; thence to Old Brazos River Channel Tidal. TCEQ received this application on August 7, 2024. The permit application will be available for viewing and copying at Freeport Branch Library, 410 Brazosport Boulevard, Freeport, in Brazoria County, Texas prior to the date this notice is published in the newspaper. 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>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.338055,28.956388&level=18>

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>.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

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 placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county.

If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at 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. All public comments and requests must be submitted either electronically at <https://www14.tceq.texas.gov/epic/eComment/>, 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 www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Gladieux Metals Recycling, LLC at the address stated above or by calling Ms. Judy LeBlanc, at 979-415-1547.

Issuance Date: August 29, 2024

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 RENOVACION

PERMISO NO. WQ0001861000

SOLICITUD. Gladieux Metals Recycling LLC, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0001861000 (EPA I.D. No. TX0034738) 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 350,000 galones por día. La planta está ubicada 302 Midway Road en el Condado de Brazoria, Texas. La ruta de descarga es del sitio de la planta a vía emisario 001 hacia el canal "A" de la planta Química de Dow; de allí hasta la marea del río Brazos y por el emisario 002 hasta la de drenaje sin nombre; de allí a la marea del antiguo canal del río Brazos. La TCEQ recibió esta solicitud el día 07 de Agosto del 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la biblioteca de Freeport Branch, 410 Brazos sport Boulevard, Freeport, en el condado de Brazos, 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=-95.338055,28.956388&level=1>

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.

Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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 envía 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 Gladieux Metals Recycling, LLC a la dirección indicada arriba o llamando a Ms. Judy LeBlanc al 979-415-1547

Fecha de emisión: 29 de agosto de 2024



August 7, 2024

Jennifer Bowers
Water Quality Division (MC-148)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Subject: Gladieux Metals Recycling, LLC
TPDES Permit No. WQ0001861000 Renewal Application
CN605364843, RN100210129
CEC Project 331-933

Dear Ms. Bowers,

Gladieux Metals Recycling (GMR) is pleased to submit this permit renewal application for the existing onsite wastewater treatment system. GMR is not proposing any changes to the current permit conditions as part of this renewal.

We are providing one original and three copies of the renewal application for your review. If you have any questions regarding this submittal, please feel free to contact me at 512-225-8102 or email at cperkin@cecinc.com

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Corey P. Perkin
Assistant Project Manager

Adam W. Mehevec, P.E.
Vice President

Enclosures:

cc: Judy LeBlanc (GMR)

TPDES PERMIT APPLICATION RENEWAL

Prepared For:

GLADIEUX METALS RECYCLING

**302 MIDWAY ROAD
FREEPORT, TEXAS**

Prepared By:

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
AUSTIN, TEXAS**

CEC Project 331-933

AUGUST 2024



Civil & Environmental Consultants, Inc.

TABLE OF CONTENTS

1.0	CORE DATA FORM (TCEQ FORM 10400)	1
2.0	INDUSTRIAL ADMINISTRATIVE REPORT (TCEQ FORM 10411)	2
3.0	INDUSTRIAL TECHNICAL REPORT (TCEQ FORM 10055)	3
3.1	Worksheet 2.0	3
3.2	Worksheet 4.0	3
3.3	Worksheet 7.0	3

FIGURES

Figure 1: Administrative Industrial Report USGS Map (*Unchanged from Approved Permit Application*)

Figure 1A & 1B: Photo of 001 and 002 Outfall Discharge Locations (*Unchanged from Approved Permit Application*)

Figure 2: Supplemental Permit Information USGS Map (*Unchanged from Approved Permit Application*)

Figure 3: Affected Landowner's Map

Figure 4: Facility Layout and Stormwater Outfall 002 Map (*Unchanged from Approved Permit Application*)

Figure 5: Process Flow Diagram and Water Balance

Figure 6: Detailed Wastewater Process Flow Diagram (New Figure)

ATTACHMENTS

Section 2 Attachments

Attachment 1: Plain Language Summary Template

Attachment 2: Supplemental Permit Information Form (TCEQ For 20971)

Attachment 3: Landowner Map, Landowner List and Mailing Labels

Attachment 4: Copy of Voucher

Section 3 Attachments

Attachment 5: List of Raw Materials, Intermediates, and Products (*Unchanged from Approved Permit Application*)

Attachment 6: Cooling Tower Chemical Dosage and Toxicity Data and Material Safety Data Sheets (MSDS) (*Unchanged from Approved Permit Application*)

Attachment 7: Production Breakdowns for Leach Tailings, Molybdenum Leachate/Solvent Raffinate and Technical Grade Molybdenum (*Unchanged from Approved Permit Application*)

Attachment 8: Analytical Laboratory Results

A. Analytical Reports for Proposed Inflows

- a. Stormwater Collected Below Roasters
- b. Stormwater and Process Water from CB-2
- c. Stormwater from Pond 4

B. Analytical Reports for Existing Approved Inflows (*Unchanged from Approved Permit Application*)

1.0 CORE DATA FORM (TCEQ FORM 10400)



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 type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" 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 605364843		RN 100210129

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		08/06/2024	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<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>	
Gladieux Metals Recycling LLC					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0802692118		32063380052			
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
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 checked="" type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input type="checkbox"/> Yes <input checked="" 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:		302 Midway Road			
City		Freeport		State	TX
ZIP		77542		ZIP + 4	
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.)

Gladieux Metals Recycling

23. Street Address of the Regulated Entity:

(No PO Boxes)

302 Midway Road

City

Freeport

State

TX

ZIP

77542

ZIP + 4

24. County

Brazoria County

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

25. Description to Physical Location:

The GMR Freeport Facility can be accessed via TX-288 South, turning left onto N Gulf Boulevard, traveling east for three miles, and turning right onto Midway Road.

26. Nearest City

State

Nearest ZIP Code

Freeport

TX

77542

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:

28.956607

28. Longitude (W) In Decimal:

-95.338094

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

28

57

24

-95

20

19

29. Primary SIC Code

(4 digits)

30. Secondary SIC Code

(4 digits)

31. Primary NAICS Code

(5 or 6 digits)

32. Secondary NAICS Code

(5 or 6 digits)

3341

331492

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

Recycles catalysts

34. Mailing Address:

302 Midway Road

City

Freeport

State

TX

ZIP

77542

ZIP + 4

35. E-Mail Address:

Judy LeBlanc <JLeBlanc@aleonmetals.com>

36. Telephone Number

37. Extension or Code

38. Fax Number (if applicable)

(979) 415-1547

() -

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
				50204
<input type="checkbox"/> Municipal Solid Waste	<input checked="" type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
	9803, 1157C, 19793			
<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
	WQ0001861000			
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0001861000			

SECTION IV: Preparer Information

40. Name:	Corey P. Perkin			41. Title:	Assitant Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(512) 225-8102		() -	cperkin@cecinc.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:	Gladieux Metals Recycling		Job Title:	Chief Executive Officer	
Name (In Print):	Tarun Bhatt			Phone:	(979) 415- 1500
Signature:	 <small>boxSIGN 492327QR4-1P9Q23986</small>			Date:	08/07/5024

2.0 INDUSTRIAL ADMINISTRATIVE REPORT (TCEQ FORM 10411)



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

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

APPLICANT NAME: Gladieux Metals Recycling, LLC

PERMIT NUMBER (If new, leave blank): WQ00 01861000

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 type="checkbox"/>	<input checked="" type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 9.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 10.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plain Language Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 1.0	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	Landowner Disk or Labels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.3	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 6.0	<input type="checkbox"/>	<input checked="" 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: Gladieux Metals Recycling, LLC

Permit No.: WQ0001861000

EPA ID No.: TX0034738

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 _____

¹ https://www.tceq.texas.gov/publications/search_forms.html

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 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 checked="" 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: [582EA000620265](#)

Copy of voucher attachment: [Section 2 Attachment 4](#)

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: [CN600124598](#)

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: [Gladieux Metals Recycling, LLC](#)

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: [Mr.](#) Full Name (Last/First Name): [Tarun Bhatt](#)

Title: [Chief Executive Officer](#)

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

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

☒ Yes ☐ No

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>

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): [CNClick 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: **See Section 1**

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: Ms. Full Name (Last/First Name): LeBlanc, Judy

Title: Environmental Health and Safety Specialist Credential: [Click to enter text.](#)

Organization Name: Gladieux Metals Recycling, LLC

Mailing Address: 302 Midway Road

City/State/Zip: Freeport, TX 77542-2290

Phone No: 979-233-9474

Email: JLeBlanc@aleonmetals.com

b. ☒ Administrative Contact ☐ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Mehevec, Adam

Title: Vice President

Credential: Engineer

Organization Name: Civil and Environmental Consultants, Inc.

Mailing Address: 1221 S. MoPac Expwy Suite 350 City/State/Zip: Austin, TX 78746

Phone No: 512-329-0006 Email: amehevec@cecinc.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: Ms. Full Name (Last/First Name): LeBlanc, Judy

Title: Environmental Health and Safety Specialist Credential: Click to enter text.

Organization Name: Gladieux Metals Recycling, LLC

Mailing Address: 302 Midway Road

City/State/Zip: Freeport, TX 77542-2290

Phone No: 979-415-1547

Email: JLeBlanc@aleonmetals.com

b. Prefix: Mr. Full Name (Last/First Name): Metric, John

Title: Director of Engineering Credential: Click to enter text.

Organization Name: Gladieux Metals Recycling, LLC

Mailing Address: 302 Midway road

City/State/Zip: Freeport, TX 77542-2290

Phone No: 979-415-1540

Email: JMetric@aleonmetals.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: Ms. Full Name (Last/First Name): LeBlanc, Judy

Title: Environmental Health and Safety Specialist

Credential: Click to enter text.

Organization Name: Gladieux Metals Recycling, LLC

Mailing Address: 302 Midway Road

City/State/Zip: Freeport, TX 77542-2290

Phone No: 979-415-1547

Email: JLeBlanc@aleonmetals.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: Ms. Full Name (Last/First Name): LeBlanc, Judy

Title: Environmental Health and Safety Specialist

Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: 302 Midway Road

City/State/Zip: Freeport, TX 77542-2290

Item 9. Notice Information (Instructions, Pages 28)**a. Individual Publishing the Notices**Prefix: Ms. Full Name (Last/First Name): Perkin, CoreyTitle: Assistant Project Manager Credential: Click to enter text.Organization Name: Civil & Environmental Consultants, Inc.Mailing Address: 1221 S. MoPac Expwy Suite 350 City/State/Zip: Austin, Texas 78746Phone No: 512-225-8102 Email: cperkin@cecinc.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: Click to enter text.☐ Fax: Click to enter text.☒ Regular Mail (USPS)Mailing Address: 1221 S. MoPac Expwy Suite 350City/State/Zip Code: Austin, Texas 78746**c. Contact in the Notice**Prefix: Ms. Full Name (Last/First Name): LeBlanc, JudyTitle: Environmental Health and Safety Specialist Credential: Click to enter text.Organization Name: Gladieux MetalsPhone No: 979-415-1547 Email: JLeBlanc@aleonmetals.com**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: Freeport Public Library Location within the building: Click to enter text.Physical Address of Building: 410 Brazosport Blvd.City: Freeport County: Brazoria**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: **Section 2 Attachment 1**
- 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:

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

- a. TCEQ issued Regulated Entity Number (RN), if available: RN100210129

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): Gladieux Metals Recycling, LLC

- 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: Mr. Full Name (Last/First Name): Bhatt, Tarun

or Organization Name: Gladieux Metals Recycling, LLC

Mailing Address: 302 Midway Road

City/State/Zip: Freeport, TX 77542-2290

Phone No: 979-415-1547

Email: tbatt@aleonmetals.com

- e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

- f. Owner of land where treatment facility is or will be: Gladieux Metals Recycling, LLC
 Prefix: Mr. Full Name (Last/First Name): Bhatt, Tarun
 or Organization Name: Gladieux Metals Recycling
 Mailing Address: 302 Midway Road City/State/Zip: Freeport, TX 77542-2290
 Phone No: 979-415-1547 Email: tbhatt@aleonmetals.com
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): Click to enter text.
 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. TDPES 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.
- | | |
|---|--|
| <input checked="" type="checkbox"/> One-mile radius | <input checked="" type="checkbox"/> Three-miles downstream information |
| <input checked="" type="checkbox"/> Applicant's property boundaries | <input checked="" type="checkbox"/> Treatment facility boundaries |
| <input checked="" type="checkbox"/> Labeled point(s) of discharge | <input checked="" type="checkbox"/> Highlighted discharge route(s) |
| <input type="checkbox"/> Effluent disposal site boundaries | <input checked="" type="checkbox"/> All wastewater ponds |
| <input type="checkbox"/> Sewage sludge disposal site | <input type="checkbox"/> New and future construction |
- Attachment: Figure 1
- 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: [Click to enter text.](#)

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

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

- f. City nearest the outfall(s): Freeport, TX

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

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

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: N/A

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

☐ Yes No or New Permit ☒ N/A

If no, or a new application, provide an accurate location description: [Click to enter text.](#)

- j. City nearest the disposal site:

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

- 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: W00001861

Applicant Name: Gladieux Metals Recycling, LLC

Certification: I, Tarun Bhatt, 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): Tarun Bhatt

Signatory title: Chief Executive Officer

Signature:  Date: 08/07/24
(Use blue ink)

Subscribed and Sworn to before me by the said Tarun Bhatt
on this 7th day of August, 20 24.
My commission expires on the 4th day of March, 20 28.

Martha Estrada
Notary Public

Brazoria
County, Texas



[SEAL]

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: **Section 2 Attachment 3**

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

☐ Readable/Writeable CD ☒ Four sets of labels

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

- d. Provide the source of the landowners' names and mailing addresses: Brazoria 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: **Section 3 Figure 1A and 1B**

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: Section 2 Attachment 4

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: WQ0001861

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

SECTION 2
ATTACHMENTS 1 THROUGH 4



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.

Gladieux Metals Recycling, LLC. (GMR) (CN605364843) operates Gladieux Metals Recycling (RN100210129), a metals recycling facility. The facility is located at 302 Midway Road, in Freeport, Brazoria County, Texas 77542. GMR is submitting a renewal application to its TPDES permit to discharge up to 300,000 gallons per day of treated wastewater via Outfall 001 and up to 2.2 million gallons per day of stormwater via Outfall 002.

Discharges from the facility are expected to contain molybdenum oxide, vanadium oxide, cobalt/nickel alloy, and fused alumina. Cooling water will be treated by cooling towers and dedicated holding ponds.

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

AGUAS RESIDUALES INDUSTRIALES /AGUAS PLUVIALES

El siguiente resumen es proporcionado para la aplicación pendiente para esta solicitud del permiso de calidad del agua que esta siendo revisada por la Comisión de Calidad Ambiental de Texas (por sus siglas en ingles TCEQ) como es requerido por el Código Administrativo de Texas 30, capítulo 39. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la aplicación y no es una representación federal ejecutiva del permiso de la aplicación.

Gladieux Metals Recycling, LLC (GMR)(CN605364843) que es operada por Gladieux Metals Recycling (RN100210129) una instalación de metales reciclables. La instalación esta ubicada en 302 Midway Road, en Freeport, Brazoria, County, Texas 77542. GMR esta entregando esta aplicación para la renovación del permiso de Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES), para la descarga de hasta 300,00 galones por día de aguas residuales tratadas vía desagüe 001 y hasta 2.2 millones de galones por día de aguas pluviales vía desagüe 002.

Las descargas de la instalación se espera que contengan oxido de molibdeno, oxido de vanadio, aleación de cobalto/ níquel y alúmina fundida. El agua de refrigeración será tratada mediante las torres de enfriamiento y por los estanques de retención exclusivos

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.

GTEXAS 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: _____ Segment Number: _____

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: Gladieux Metals Recycling, LLC

Permit No. WQ00 01861

EPA ID No. TX 0034738

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

302 Midway Road, Freeport, Texas 77542-2290

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): Mr.

First and Last Name: John Metric

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

Title: Director of Engineering

Mailing Address: 302 Midway Road

City, State, Zip Code: Freeport, TX 77542-2290

Phone No.: 979-415-1547 Ext.: Fax No.:

E-mail Address: JMetric@aleonmetals.com

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

N/A

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.

Dow Chemical Plant "A" Canal

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:

N/A

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:

[REDACTED]

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

[REDACTED]

P:\330-000\331-933\--CADD\DWG\EN01-AdjacentLandOwners\331933-EN01-AdjacentLandOwners.dwg[3] LS:(8/6/2024 - jcarter) - LP: 8/6/2024 12:14 PM

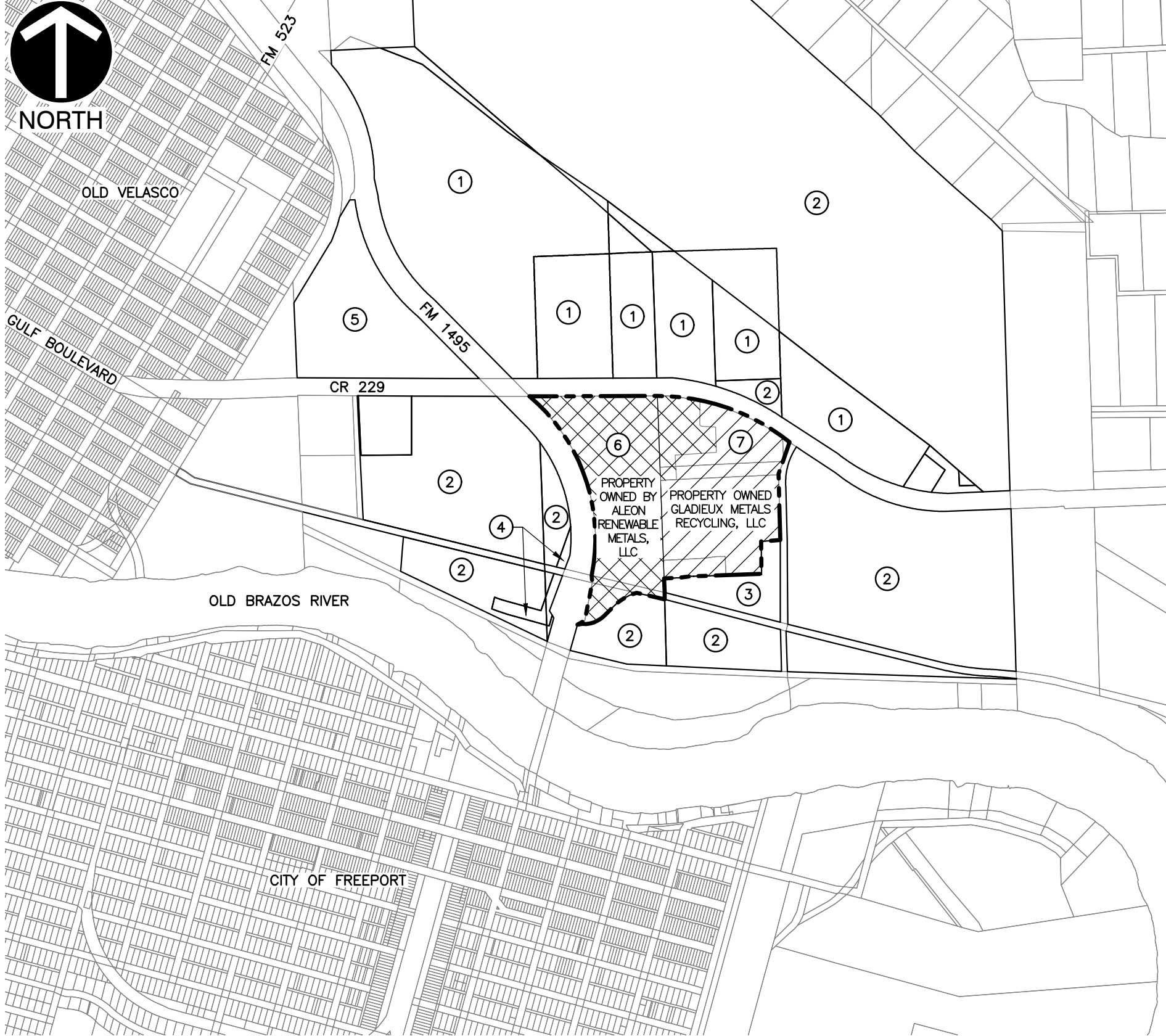


TABLE OF CONTENTS		
PARCEL	LANDOWNER	ADDRESS
①	CHAMPIONX, LLC	2445 TECHNOLOGY FOREST BLVD BLDG. 4 12TH FLOOR THE WOODLANDS, TX 77381
②	DOW CHEMICAL COMPANY	C/O TAX DEPT. TXINN APB FLOOR 4A 332 SH 332 E LAKE JACKSON, TX 77566
③	CHEMICAL SPECIALTIES, INC.	PO BOX 1330 HARRISBURG, NC 28705-1330
④	CITY OF FREEPORT	200 W 2ND STREET FREEPORT, TX 77541-5773
⑤	FREEPORT WELDING & FABRICATING, INC.	PO BOX 2076 FREEPORT, TX 77542
⑥	ALEON RENEWABLE METALS, LLC	302 MIDWAY ROAD FREEPORT, TX 77541
⑦	GLADIEUX METALS RECYCLING, LLC	302 MIDWAY ROAD FREEPORT, TX 77541

REFERENCE

PARCEL LINES FROM BRAZORIA COUNTY APPRAISAL DISTRICT PUBLIC GIS
AND PROPERTY DATA DOWNLOAD WEBSITE; DOWNLOAD DATE: MAY 4, 2018.



Civil & Environmental
Consultants, Inc.

1221 S. MoPac Expressway
Suite 350
Austin, TX 78746
Ph: 512.439.0400
www.cecinc.com

Texas Registered
Engineering Firm F-38

GLADIEUX METALS RECYCLING, LLC
RCRA PERMIT RENEWAL/AMENDMENT
FREEPORT, TEXAS

LANDOWNERS MAP

DRAWN BY:	JSC	CHECKED BY:	CP	APPROVED BY:	AWM*	FIGURE NO.:	3
DATE:	AUGUST 2024	DWG SCALE:	1" = 1,000'	PROJECT NO:	331933		

*HAND SIGNATURE ON FILE

LANDOWNERS LIST

The following table lists the names and mailing addresses of the adjacent and potentially affected landowners around the facility boundary. The list is based on the Brazoria County Appraisal District records (as of AUGUST 2024). *Aleon Renewable Metals, LLC and Gladieux Metals Recycling, LLC are both owned by the same parent company.

Number	Name	Address
1	CHAMPIONX LLC	2445 TECHNOLOGY FOREST BLVD BLDG 4 12TH FLOOR THE WOODLANDS, TX 77381
2	DOW CHEMICAL COMPANY	332 SH 332 E LAKE JACKSON, TX 77566
3	CHEMICAL SPECIALTIES, INC.	PO BOX 1330 HARRISBURG, NC 28705-1330
4	CITY OF FREEPORT	200 W 2 ND STREET FREEPORT, TX 77542
5	FREEPORT WELDING & FAB INC	PO BOX 2076 FREEPORT, TX 77542-2076
6	*ALEON RENEWABLE METALS, LLC	302 MIDWAY RD FREEPORT, TX 77541
7	*GLADIEUX METALS RECYCLING, LLC	302 MIDWAY ROAD FREEPORT, TX 77541

CHAMPIONX LLC
2445 TECHNOLOGY FOREST BLVD
BLDG 4 12TH FLOOR
THE WOODLANDS, TX 77381

FREEPORT WELDING & FAB INC
PO BOX 2076
FREEPORT, TX 77542-2076

DOW CHEMICAL COMPANY
332 SH 332 E
LAKE JACKSON TX 77566

ALEON RENEWABLE METALS LLC
302 MIDWAY RD
FREEPORT, TX 77541

CHEMICAL SPECIALTIES INC
PO BOX 1330
HARRISBURG, NC 28705-1330

CITY OF FREEPORT
200 W 2ND STREET
FREEPORT, TX 77541-5773

GLADIEUX METALS RECYCLING
LLC
302 MIDWAY RD
FREEPORT, TEX 77541

From: steers@tceq.texas.gov
To: [Perkin, Corey](#)
Subject: TCEQ ePay Receipt for 582EA000620265
Date: Monday, August 5, 2024 4:08:08 PM

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

Trace Number: 582EA000620265

Date: 08/05/2024 03:55 PM

Payment Method: CC - Authorization 0000092763

TCEQ Amount: \$2,015.00

Texas.gov Price: \$2,060.59*

* 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: COREY PERKIN

Email: cperkin@cecinc.com

Payment Contact: RACHEL DORMAN

Phone: 512-952-2016

Company: CIVIL & ENVIRONMENTAL CONSULTANTS

Address: 1221 S MO PAC EXPY, AUSTIN, TX 78746

Fees Paid:

Fee Description AR Number Amount

WW PERMIT - MAJOR INDUSTRIAL FACILITY - RENEWAL \$2,000.00

30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE \$15.00

TCEQ Amount: \$2,015.00

=====

Voucher: 715888

Trace Number: 582EA000620265

Date: 08/05/2024 03:55 PM

Payment Method: CC - Authorization 0000092763

Voucher Amount: \$2,000.00

Fee Paid: WW PERMIT - MAJOR INDUSTRIAL FACILITY - RENEWAL

RN Number: RN100210129

Site Name: GLADIUEX METALS RECYCLING

Site Location: 302 MIDWAY ROAD

Customer Name: GLADIEUX METALS RECYCLING

Customer Address: 302 MIDWAY ROAD, FREEPORT, TX 77542

Program Area ID: WQ00001861000

Voucher: 715889

Trace Number: 582EA000620265

Date: 08/05/2024 03:55 PM

Payment Method: CC - Authorization 0000092763

Voucher Amount: \$15.00

Fee Paid: 30 TAC 305.53B WQ RENEWAL 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=582EA000620265.

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.

3.0 INDUSTRIAL TECHNICAL REPORT (TCEQ FORM 10055)

3.1 WORKSHEET 2.0

3.2 WORKSHEET 4.0

3.3 WORKSHEET 7.0



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).

GMR is a secondary metals recovery facility. It processes primarily spent catalyst containing aluminum oxide, nickel, cobalt, molybdenum, vanadium and sulfur. Chemicals used in the process include sodium carbonate, sodium hydroxide, magnesium oxide, hydrochloric acid, sulfuric acid, quaternary amines, hydrogen peroxide and ammonia. GMR produces V₂O₅, MoO₃, fused alumina, and mixed alloys of nickel and cobalt.

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

Spent catalysts are roasted with soda ash and leached with water to dissolve and remove molybdenum and vanadium. The insoluble residue, containing nickel, cobalt, and aluminum oxide, is heated in a furnace to produce fused alumina and mixed nickel and cobalt alloys. The molybdenum and vanadium remaining in solution are recovered in a series of steps including precipitation, removal of impurities, acidification and heating in a furnace. Products of this process include vanadium pentoxide and molybdenum trioxide. The solutions depleted molybdenum and vanadium then undergo solvent extraction and steam heating to recover residual metals and ammonia. The resulting solutions are cooled, adjusted in pH, chemically treated to induce settling of solids and filtered to remove the suspended solids. The treated process stream is discharged through Outfall 001 as wastewater. Discharge through Outfall 001 is currently regulated under permit WQ0001861000. Outfall 002 only discharges 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
A complete list of raw materials, intermediate and final products can be found in Attachment 4.		

Attachment: Section 3 Attachment 4

- 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: Figure 1

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

☐ Yes ☒ No

If **yes**, provide background discussion: [Click to enter text.](#)

- 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: The current FEMA Firm Panel 48039Co780 (Revised November 17, 1993) shows the area of the treatment plant at the very edge of a shallow floodplain extending to elevation 2.0 feet MSL. However, onsite surveying done as part of the RCRA permit renewal to address this issue, shows the area within the plant is all at or above 3 feet MSL and thus above the stated water surface elevation on the FEMA map.

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: [Click to enter text.](#)

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

- 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.

1. Chemical Precipitation 2. Steam/air stripping of ammonia 3. Flow equalization 4. Cooling 5. Addition of flocculant 6. Primary sedimentation 7. pH control 8. Multi-media filtration

- 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: [Figures 5 and 6](#)

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	001		
Liner Type (C) (I) (S) or (A)	S	S		
Alt. Liner Attachment Reference				
Leak Detection System, Y/N	Y	Y		
Groundwater Monitoring Wells, Y/N	N			
Groundwater Monitoring Data Attachment	N			
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y			
Length (ft)	217	154		
Width (ft)	154	122		
Max Depth From Water Surface (ft), Not Including Freeboard	19	19		

Parameter	Pond #	Pond #	Pond #	Pond #
Freeboard (ft)	2	2		
Surface Area (acres)	0.96	0.53		
Storage Capacity (gallons)	3.23M	1.63M		
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction				

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

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: [Click to enter text.](#)

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: [Click to enter text.](#)

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

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

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	28.95609	95.33782
002	28.95698	95.33697

Outfall Location Description

Outfall No.	Location Description
001	Adjacent (immediate south) to North Plant Entrance Gate
002	Adjacent (immediate north) to North Plant Entrance Gate

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

Outfall No.	Description of sampling point

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	0.122	0.3	0.122	0.3	
002	Intermittent/ Variable	Intermittent/ Variable	Intermittent/ Variable	Intermittent/ Variable	

Outfall Discharge – Method and Measurement

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

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	N	N	Y	24	30	12
002	N	Y	N	Varies	Varies	Varies

Outfall Wastestream Contributions**Outfall No. 001**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Process Wastewater	Up to 0.22	43
Stormwater	Up to 0.23	46
Non-Contact Cooling Water	Up to 0.04	7
Domestic Sewage	Up to 0.01	1
Stormwater and Process Water from Catalyst Storage and Feed Areas	Up to 0.01	1
Stormwater from Process Pond #4	Up to 0.01	1
Stormwater from Offsite Remediation Excavation	Up to 0.01	1

Outfall No. 002

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater	Varies	100

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: [Attachment 2](#)

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	6	18,100	34,373
Boilers	0	N/A	N/A

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: [Click to enter text.](#)

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.

Plant/Hauler Name	Permit/Registration No.

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: New SWPPP was implemented prior to February 9, 2015. Pond 5 liner replacement was completed in December of 2014. All other process ponds to be relined prior to July 31, 2015. This requirement has been completed.

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)

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	Dow Chemical Company			
Operator	Dow Chemical Company			

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. TX0200027, 0200232, 0200535, 0200531, 0200528, 0200534

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: WQ0004429000, WQ0000007000

- 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: Tarun Bhatt

Title: Chief Operating Officer Authorized Representative

A digital signature of Tarun Bhatt in blue ink, enclosed in a rectangular box. Below the signature, the text "BOX SIGN" and a long alphanumeric string "4P2Q7084 1003Q42P" are visible.

Signature: _____

Date: Aug 6, 2024

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
Non-Metals Manufacturing	421

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
Technical Grade Molybdenum	15,00	20,00	Pounds
Technical Grade Vanadium	15,00	20,00	Pounds
See Attachment 3 for Production			
Breakdown, i.e. Leach Tailings			
Mo. Leach/Solv. Extr. Raff			

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units

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.

N/A

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.

There are no defined breakdown of process wastewater and non-process wastewater flows for this industry.

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
Molybdenum/Vanadium Recovery	421	T	1973

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)

- 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): 3/14/2017, 3/21/2017, 3/28/2017, 4/4/2017
- ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- 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: Section 3 Attachment 7

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: N/A**

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.:

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				

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total residual chlorine				
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO3)				
Temperature (°F)				
pH (standard units)				

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					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, 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

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.: [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)*
Acrylonitrile					50
Anthracene					10
Benzene					10
Benidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
Bis(2-chloroethyl)ether					10
Bis(2-ethylhexyl)phthalate					10
Bromodichloromethane [Dichlorobromomethane]					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane [Dibromochloromethane]					10
Chloroform					10
Chrysene					5
m-Cresol [3-Methylphenol]					10
o-Cresol [2-Methylphenol]					10
p-Cresol [4-Methylphenol]					10
1,2-Dibromoethane					10
m-Dichlorobenzene [1,3-Dichlorobenzene]					10
o-Dichlorobenzene [1,2-Dichlorobenzene]					10
p-Dichlorobenzene [1,4-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
1,2-Dichloroethane					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]					10
Dichloromethane [Methylene chloride]					20
1,2-Dichloropropane					10
1,3-Dichloropropene [1,3-Dichloropropylene]					10
2,4-Dimethylphenol					10
Di-n-Butyl phthalate					10
Ethylbenzene					10
Fluoride					500
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Methyl ethyl ketone					50
Nitrobenzene					10
N-Nitrosodiethylamine					20
N-Nitroso-di-n-butylamine					20
Nonylphenol					333
Pentachlorobenzene					20
Pentachlorophenol					5
Phenanthrene					10
Polychlorinated biphenyls (PCBs) (**)					0.2
Pyridine					20
1,2,4,5-Tetrachlorobenzene					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethene [Tetrachloroethylene]					10
Toluene					10
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethene [Trichloroethylene]					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					50
TTHM (Total trihalomethanes)					10
Vinyl chloride					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.: **001**

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 type="checkbox"/>					400
Color (PCU)	<input type="checkbox"/>	<input type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input type="checkbox"/>	<input type="checkbox"/>					—
Sulfide (as S)	<input type="checkbox"/>	<input type="checkbox"/>					—
Sulfite (as SO ₃)	<input type="checkbox"/>	<input type="checkbox"/>					—
Surfactants	<input type="checkbox"/>	<input type="checkbox"/>					—
Boron, total	<input type="checkbox"/>	<input type="checkbox"/>					20
Cobalt, total	<input type="checkbox"/>	<input type="checkbox"/>					0.3
Iron, total	<input type="checkbox"/>	<input type="checkbox"/>					7
Magnesium, total	<input type="checkbox"/>	<input type="checkbox"/>					20
Manganese, total	<input type="checkbox"/>	<input type="checkbox"/>					0.5
Molybdenum, total	<input type="checkbox"/>	<input type="checkbox"/>					1
Tin, total	<input type="checkbox"/>	<input type="checkbox"/>					5
Titanium, total	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" 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.: 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)
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.: **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)
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.: [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)
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.: **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)
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: [Click to enter text.](#)

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 (Ronnell) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

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

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.: **001**

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.: **001**

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
Vanadium	07440-62-2	42,000				EPA 207

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)

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: [Click to enter text.](#)

- 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

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:

- ☐ USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
- ☐ Breakdown of acreage and percent of total acreage for each soil type.
- ☐ 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

[illegible]

Item 7. Pollutant Analysis (Instructions, Page 72)

- 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): 3/14/2017, 3/21/2017, 3/28/2017, 4/4/2017
- ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- Complete Tables 15 and 16.

Table 15 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)
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.: [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)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Barium, total					3
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): [Click to enter text.](#)

Design application rate (acre-ft/acre/yr): [Click to enter text.](#)

Design application frequency (hours/day): [Click to enter text.](#)

Design application frequency (days/week): [Click to enter text.](#)

Design total nitrogen loading rate (lbs nitrogen/acre/year): [Click to enter text.](#)

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

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

Irrigation efficiency (percent): [Click to enter text.](#)

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

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

Curve number: [Click to enter text.](#)

Describe the application method and equipment: [Click to enter text.](#)

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** [Click to enter text.](#)

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: [Click to enter text.](#) gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** Evapotranspiration Beds (Instructions, Page 74)
- a. Provide the following information on the evapotranspiration beds:
- Number of beds: [Click to enter text.](#)
- Area of bed(s) (acres): [Click to enter text.](#)
- Depth of bed(s) (feet): [Click to enter text.](#)
- Void ratio of soil in the beds: [Click to enter text.](#)
- Storage volume within the beds (include units): [Click to enter text.](#)
- Description of any lining to protect groundwater: [Click to enter text.](#)
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** [Click to enter text.](#)
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** [Click to enter text.](#)

Item 4. Overland Flow (Instructions, Page 74)

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

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: [Click to enter text.](#)
- 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: [Click to enter text.](#)
- 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: None
- 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: No significant run-off contribution, typical appearance of surface water for this area, i.e. average turbidity and color, slowly flowing with very small surface ripples due to light wind. Canal surface water level and flow velocity typical for weather conditions observed.

Date and time of observation: 12/17/2008 at 5:00Pm

- 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 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 checked="" type="checkbox"/> industrial water supply
<input 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: [Click to enter text.](#) 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)**								

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

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): [Click to enter text.](#)

Length of stream evaluated (ft): [Click to enter text.](#)

Number of lateral transects made: [Click to enter text.](#)

Average stream width (ft): [Click to enter text.](#)

Average stream depth (ft): [Click to enter text.](#)

Average stream velocity (ft/sec): [Click to enter text.](#)

Instantaneous stream flow (ft³/sec): [Click to enter text.](#)

Indicate flow measurement method (VERY IMPORTANT – type of meter, floating chip timed over a fixed distance, etc.): [Click to enter text.](#)

Flow fluctuations (i.e., minor, moderate, or severe): [Click to enter text.](#)

Size of pools (i.e., large, small, moderate, or none): [Click to enter text.](#)

Maximum pool depth (ft): [Click to enter text.](#)

Total number of stream bends: [Click to enter text.](#)

Number well defined: [Click to enter text.](#)

Number moderately defined: [Click to enter text.](#)

Number poorly defined: [Click to enter text.](#)

Total number of riffles: [Click to enter text.](#)

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

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: [Click to enter text.](#)

TCEQ Permit/Registration Number: [Click to enter text.](#)

County where disposal site is located: [Click to enter text.](#)

c. Method of sewage sludge transportation:

☐ truck ☐ train ☐ pipe ☐ other: [Click to enter text.](#)

TCEQ Hauler Registration Number: [Click to enter text.](#)

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: [Click to enter text.](#)

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		
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	Subcategory in 40 CFR	Subcategory 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
002	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<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: [Click to enter text.](#)

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)
002		

- b. Provide the following local area rainfall information and the source of the information.
Wettest month: August
Average rainfall for wettest month (total inches): 6.53
25-year, 24-hour rainfall (inches): 10
Source: NOAA Online Data
- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** Alumina Concentrate
- 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:** Alumina concentrate is stored in plastic lined ponds and in storage yards. Stormwater from the lines ponds and storage yards is treated before discharge through Wastewater Outfall 001. Loading and unloading areas for reagents, feedstocks and products, operating and maintenance areas generate stormwater that is collected in ponds. As necessary, the stormwater is treated prior to discharge through Wastewater Outfall 001.
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: Stormwater from process areas is stored in lined ponds. This stormwater is treated prior to discharge through Outfall 001. Stormwater from non-process areas of the facility is collected in sumps and retention structures. If this stormwater meets the discharge limits of Permit 01861, the water is discharged through Outfall 002. Otherwise, the water is treated prior to discharge through Outfall 001.

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): **3/14/2017, 3/21/2017, 3/28/2017, 4/4/2017**
- 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.: **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)
pH (standard units)	(max)8.4	—	(min)	—		—
Total suspended solids	25				1	—
Chemical oxygen demand	71				1	—
Total organic carbon	21				1	—
Oil and grease	ND				1	—
Arsenic, total	0.56				1	0.0005

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)
Barium, total	0.06				1	0.003
Cadmium, total	0.07				1	0.001
Chromium, total	ND				1	0.003
Chromium, trivalent	ND				1	—
Chromium, hexavalent	0.3				1	0.003
Copper, total	0.09				1	0.002
Lead, total	ND				1	0.0005
Mercury, total	ND				1	0.000005
Nickel, total	0.39				1	0.002
Selenium, total	ND				1	0.005
Silver, total	ND				1	0.0005
Zinc, total	0.32				1	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.: **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
Aluminum	0.878				
Iron	0.7				

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: December 23, 2008

Duration of storm event (minutes): 90 Minutes

Total rainfall during storm event (inches): 0.16

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): 312

Maximum flow rate during rain event (gallons/minute): Average=361 gallons/minute

Total stormwater flow from rain event (gallons): 31,047

Provide a description of the method of flow measurement or estimate:

Calibrated weir

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)

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 WTP 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: Yes
- 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)

- Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): [Click to enter text.](#)
- Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): [Click to enter text.](#)
- Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): [Click to enter text.](#)
- Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): [Click to enter text.](#)
- 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.

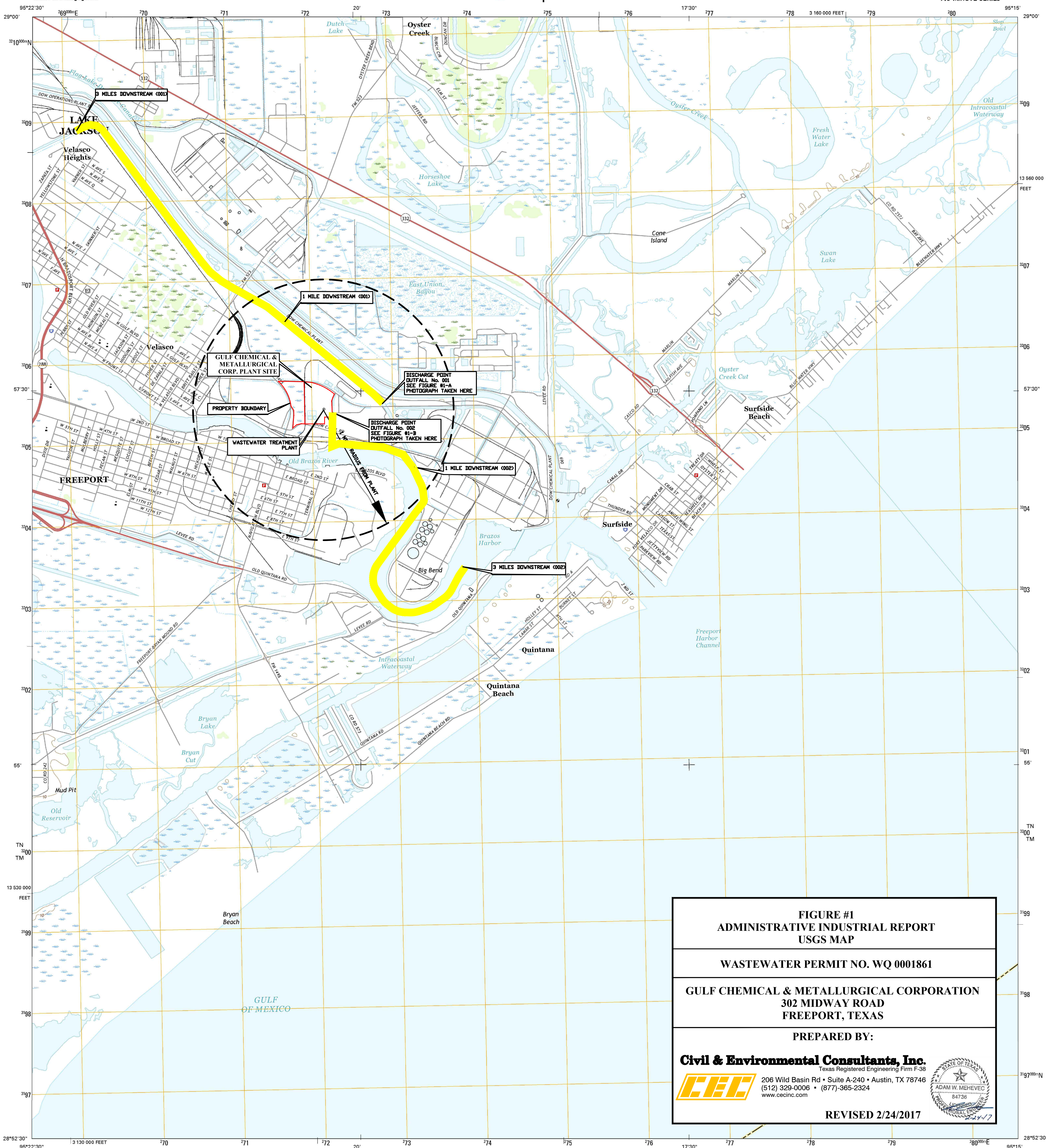
- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- 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.

FIGURES

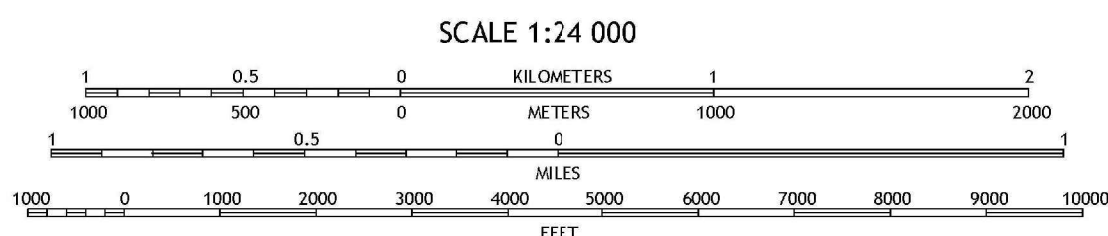
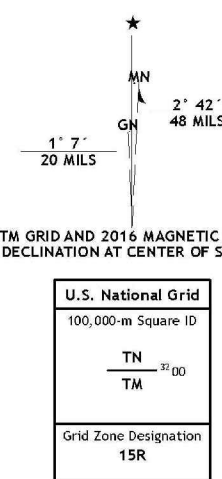


Produced by the United States Geological Survey
 North American Datum of 1983 (NAD83)
 World Geodetic System of 1984 (WGS84), Projection and
 1 000-metre grid: Universal Transverse Mercator, Zone 15R
 10 000-foot tics: Texas Coordinate System of 1983 (south
 central zone)

This map is not a legal document. Boundaries may be
 generalized for this map scale. Private lands within government
 reservations may not be shown. Obtain permission before
 entering private lands.

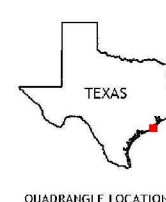
Imagery.....N.AIP, October 2014
Base.....U.S. Census Bureau, 2014
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset,
 2014
Contours.....National Elevation Dataset, 2008
Boundaries.....Multiple sources; see metadata file 1972 - 2015

Wetlands.....FWS National Wetlands Inventory 1977 - 2015



CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19



1	2	3	1 Lake Jackson
4		5	2 Oyster Creek
6	7	8	3 Christmas Point

4 Jones Creek
5 Christmas Point OES
6 Cedar Lakes East
7
8

ROAD CLASSIFICATION

Expressway		Local Connector	
Secondary Hwy		Local Road	
Ramp		4WD	

 Interstate Route  US Route  State Route

FREEPORT, TX
2016



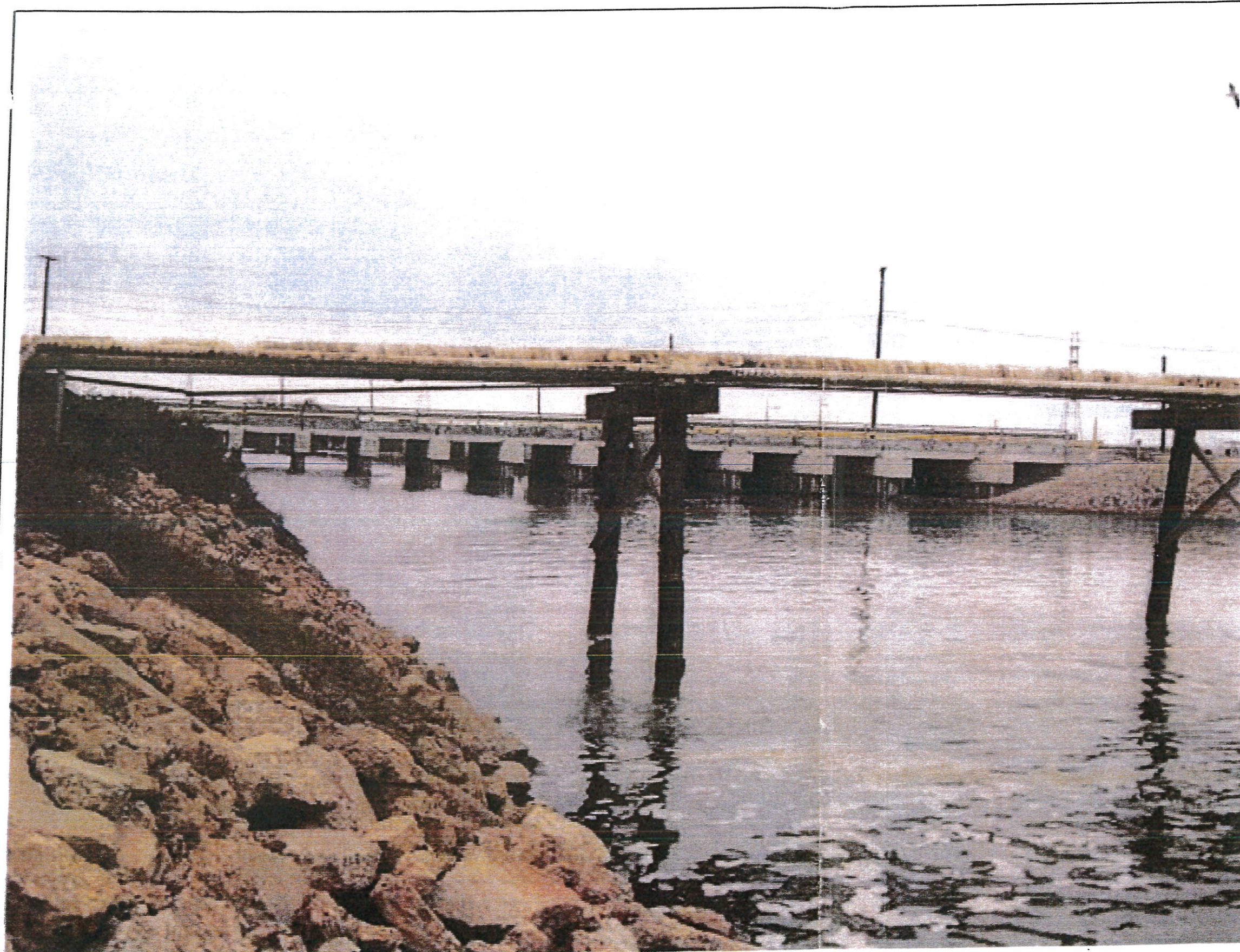


FIGURE #1-A
OUTFALL 001 DISCHARGE LOCATION
FACING DOWNSTREAM

WASTEWATER
PERMIT NO. WQ0001861000
APPLICATION FOR AMENDMENT
DECEMBER 2008



GULF CHEMICAL AND
METALLURGICAL CORP.
302 MIDWAY ROAD
FREEPORT, TEXAS



OUTFALL 002 SAMPLE COLLECTION
AND FLOW MONITORING POINT



OUTFALL 002 DISCHARGE POINT
INTO DITCH ALONG MIDWAY ROAD
(LOOKING EAST)

OUTFALL 002 DISCHARGE LOCATION PHOTOGRAPHS			
DATE:	02/07/2017	DRAWN BY:	AWM
DWG SCALE:		CHECKED BY:	AWM
PROJECT NO:			141-213
APPROVED BY:			AWM



GULF CHEMICAL AND METALLURGICAL
WQ0001861 PERMIT
RENEWAL
302 MIDWAY ROAD
FREEPORT, TEXAS

Civil & Environmental Consultants, Inc.
Texas Registered Engineering Firm F-38
206 Wild Basin Rd • Suite A-240 • Austin, TX 78746
(512) 325-0006 • (877)-365-2324
www.cecinc.com

REVISION RECORD	
NO	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	

TRACT:	LANDOWNER:	ADDRESS:
①	THE DOW CHEMICAL CHEMICAL COMPANY	TEXAS OPERATIONS 2301 BRAZOSPORT BLVD. APB BUILDING FREEPORT, TEXAS 77541
②	MINERAL RESEARCH & DEVELOPMENT DEVELOPMENT CORPORATION	302 MIDWAY ROAD FREEPORT, TEXAS 77541
③	THE DOW CHEMICAL CHEMICAL COMPANY	TEXAS OPERATIONS 2301 BRAZOSPORT BLVD. APB BUILDING FREEPORT, TEXAS 77541
④	THE DOW CHEMICAL CHEMICAL COMPANY	TEXAS OPERATIONS 2301 BRAZOSPORT BLVD. APB BUILDING FREEPORT, TEXAS 77541
⑤	NALCO CHEMICAL COMPANY	P. O. BOX 2167 FREEPORT, TEXAS 77542
⑥	NALCO CHEMICAL COMPANY	P. O. BOX 2167 FREEPORT, TEXAS 77542
⑦	NALCO CHEMICAL COMPANY	P. O. BOX 2167 FREEPORT, TEXAS 77542
⑧	THE DOW CHEMICAL CHEMICAL COMPANY	TEXAS OPERATIONS 2301 BRAZOSPORT BLVD. APB BUILDING FREEPORT, TEXAS 77541

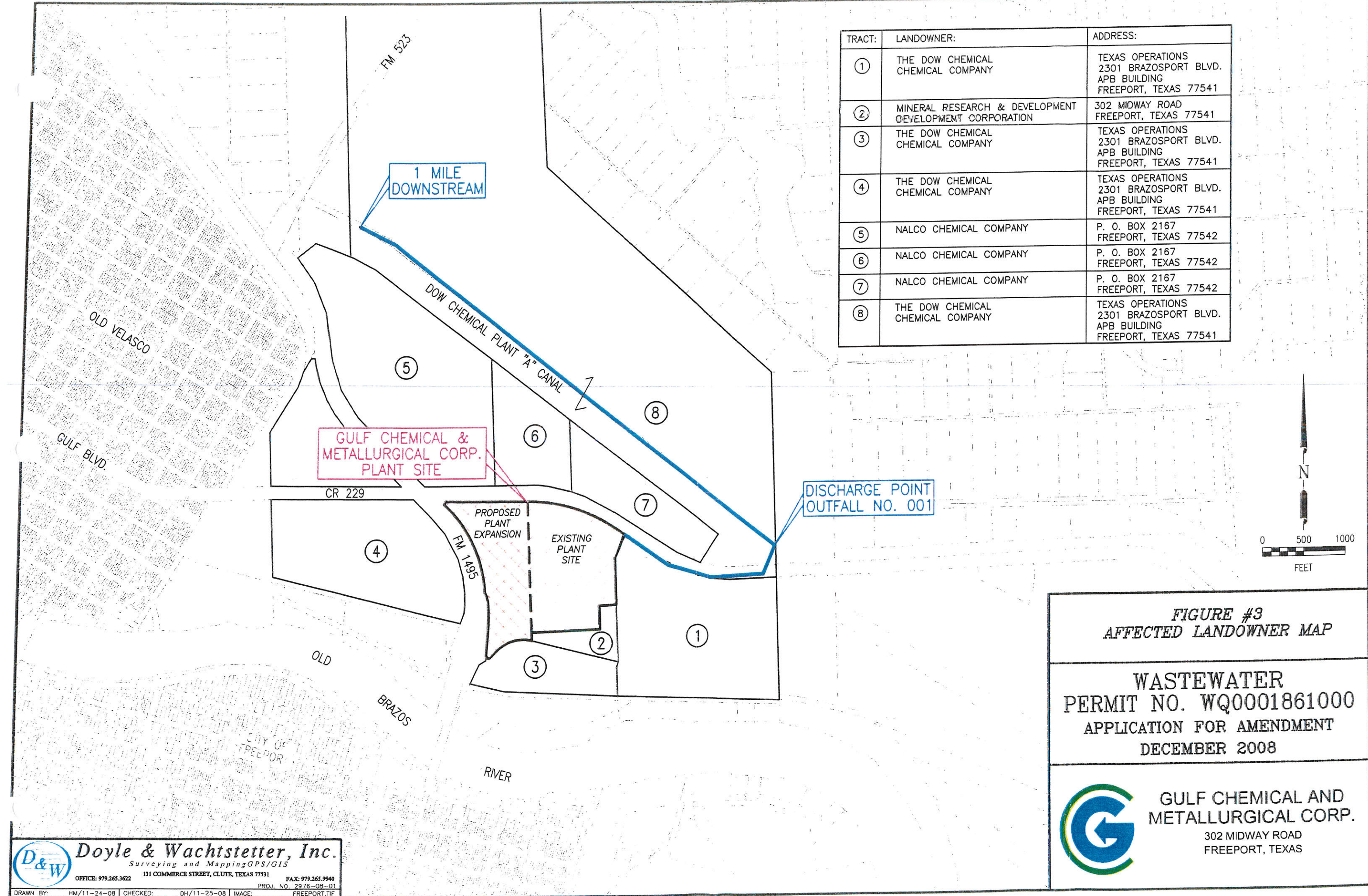


FIGURE #3
AFFECTED LANDOWNER MAP

WASTEWATER
PERMIT NO. WQ0001861000
APPLICATION FOR AMENDMENT
DECEMBER 2008



**GULF CHEMICAL AND
METALLURGICAL CORP.**
302 MIDWAY ROAD
FREEPORT, TEXAS

CR 229

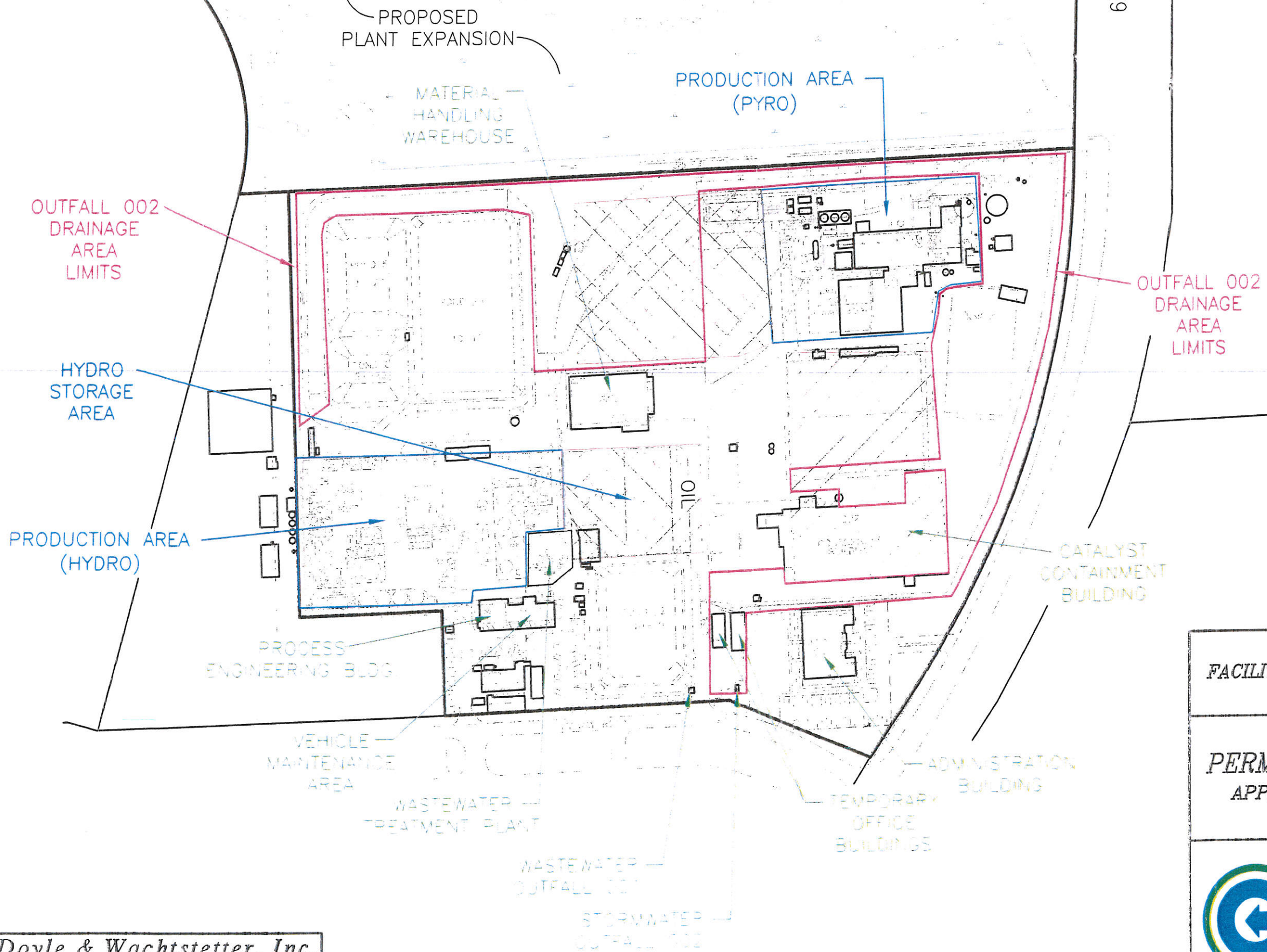
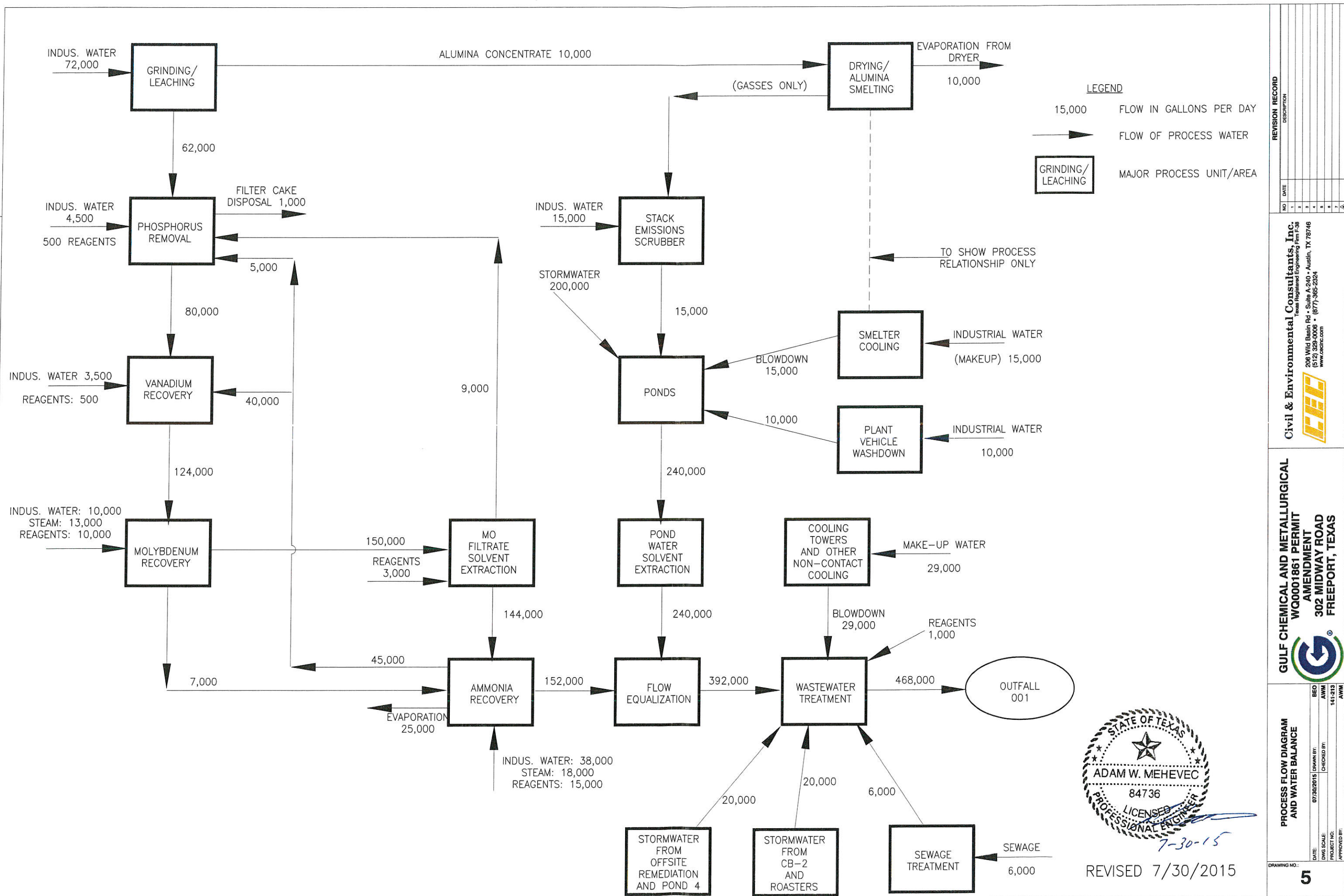


FIGURE #4
FACILITY LAYOUT AND STORMWATER
OUTFALL (002) MAP

WASTEWATER
PERMIT NO. WQ0001861000
APPLICATION FOR AMENDMENT
DECEMBER 2008



GULF CHEMICAL AND METALLURGICAL CORP.
302 MIDWAY ROAD
FREEPORT, TEXAS



REVISED 7/30/2015

REVISION RECORD	
NO	DATE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Civil & Environmental Consultants, Inc.
Texas Registered Engineering Firm F-38
208 Wild Basin Rd • Suite A-240 • Austin, TX 78746
(512) 329-0008 • (877)-365-2324
www.cedinc.com

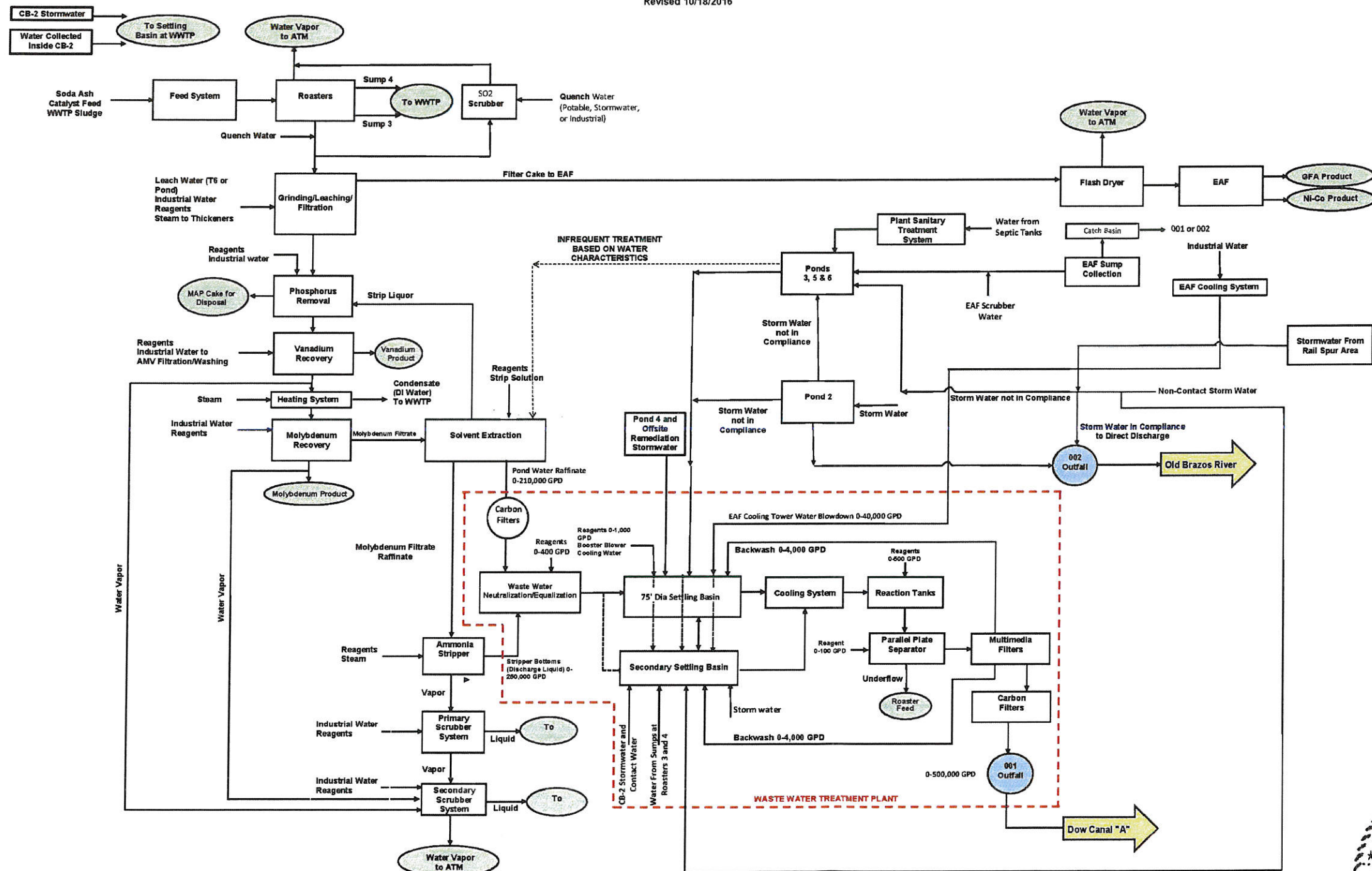
GULF CHEMICAL AND METALLURGICAL
WQ0001861 PERMIT
AMENDMENT
302 MIDWAY ROAD
FREEPORT, TEXAS

PROCESS FLOW DIAGRAM AND WATER BALANCE

DATE	DWG SCALE	PROJECT NO.	APPROVED BY:
07/30/2015			

DRAWING NO.: **5**

Figure 2-GCMC Proposed Water Process Flow Diagram
Revised 10/18/2016



GULF CHEMICAL AND METALLURGICAL
WQ0001861 PERMIT
AMENDMENT
302 MIDWAY ROAD
FREEPORT, TEXAS

DATE: 10/18/2016
DRAWN BY: ANM
CHECKED BY: ANM
PROJECT NO: 152-983
APPROVED BY: ANM

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		

Civil & Environmental Consultants, Inc.
Texas Registered Engineering Firm F-38
208 Wild Basin Rd • Suite A-240 • Austin, TX 78748
(512) 452-1300 • (877) 365-2324
www.cecinc.com

SECTION 3
ATTACHMENTS 5 THROUGH 8

SECTION 3 ATTACHMENT 5

Attachment 1

List of Raw Materials, Intermediates and Products

(Industrial Technical Report, Item 1.d)

Raw Material	CAS Number
Hydrogen Peroxide	7722-84-1
Methyl Tricapryl Ammonium Chloride (Aliquat 336)	63393-96-4
Aluminum Chlorohydrate	12042-91-0
Anhydrous Ammonia	7664-41-7
Carbon Dioxide	124-38-9
Floc 9779 (Anionic polymer flocculant contained in solvent)	64742-47-8
Hydrochloric Acid	7647-01-0
Isodecyl Alcohol	68526-85-2
Kerosene	8008-20-6
Magnesium Oxide	1309-48-4
Magnesium Sulfate (Heptahydrate)	10034-99-8
Sodium Bisulfite	7631-90-5
Sodium Carbonate	497-19-8
Sodium Chloride (10% Solution)	7647-14-5
Sodium Hydroxide	1310-73-2
Spent Refinery Hydrotreating Catalysts	N/A
Sulfuric Acid	7664-93-9
Intermediate	CAS Number
Ammonium Chloride	12125-02-9
Ammonium Metavanadate	7803-55-6
Ammonium Molybdate	12054-85-2
Ammonium Sulfate	7783-20-2
Molybdic Acid	7782-91-4
Alumina Concentrate (Referred to as "AC" in other portions of document)	N/A
Product	CAS Number
Aluminum Oxide	1344-28-1
Molybdic Trioxide	1313-27-5
Nickel Alloy (May have Cobalt, Aluminum, Silicon, Molybdenum, Vanadium and Iron)	7440-02-0 (CAS No. for Nickel, predominant component)
Vanadium Pentoxide (Flake)	1314-62-1

SECTION 3 ATTACHMENT 6

Attachment 2

Cooling Tower Chemical Dosage and Toxicity Data and
Material Safety Data Sheets

(Industrial Technical Report Item No. 5c)



ANDERSON
WATER MANAGEMENT

Inventory Summary

Wednesday, February 4, 2015 7:45 AM CST

GCMC
Freeport Facility
302 Midway Road
P.O. Box 2290
Freeport TX 77524-2290
(979) 233-7882

Generated By: Chris Wilkins
(979) 292-6602
cwilkins@accomn.com

Date Range: 12/31/2014 - 2/4/2015

Plant Cooling - EAF



CA-7110 - Recirculating System Organic Penetrant and Dispersant

Chemical Row EAF		in Gallons
Usage	15.0	
Days	28.9	
Daily	0.5	
Weekly	3.6	
Monthly	15.8	
Yearly	189.2	



CA-7110 - Recirculating System Organic Penetrant and Dispersant

Hydro Side A		in Gallons
Usage	3.0	
Days	28.9	
Daily	0.1	
Weekly	0.7	
Monthly	3.2	
Yearly	37.8	



CA-7110 - Recirculating System Organic Penetrant and Dispersant

Hydro Side B		in Gallons
Usage	3.0	
Days	28.9	
Daily	0.1	
Weekly	0.7	
Monthly	3.2	
Yearly	37.8	



Inventory Summary

Wednesday, February 4, 2015 7:45 AM CST

GCMC
Freeport Facility
302 Midway Road
P.O. Box 2290
Freeport TX 77524-2290
(979) 233-7882

Generated By: Chris Wilkins
(979) 292-6602
cwilkins@accomn.com
Date Range: 12/31/2014 - 2/4/2015

Plant Cooling - EAF



CT-6180 - Open Recirculating System Deposit & Corrosion Inhibitor

Total Hydro		in Gallons
Usage	10.0	
Days	28.9	
Daily	0.3	
Weekly	2.4	
Monthly	10.5	
Yearly	126.1	



CT-6525 - Open Recirculating System Deposit & Corrosion Inhibitor

Hydro Side S		in Gallons
Usage	5.0	
Days	28.9	
Daily	0.2	
Weekly	1.2	
Monthly	5.3	
Yearly	63.1	



CT-6525 - Open Recirculating System Deposit & Corrosion Inhibitor

KW Chemical Row EAF		in Gallons
Usage	20.0	
Days	28.9	
Daily	0.7	
Weekly	4.8	
Monthly	21.0	
Yearly	252.3	



ANDERSON
WATER MANAGEMENT

Inventory Summary

Wednesday, February 4, 2015 7:45 AM CST

GCMC
Freeport Facility
302 Midway Road
P.O. Box 2290
Freeport TX 77524-2290
(979) 233-7882

Generated By: Chris Wilkins
(979) 292-6602
cwilkins@accomn.com

Date Range: 12/31/2014 - 2/4/2015

Plant Cooling - EAF



REG 13 - 12.5 % Liquid Chlorine

Usage		in Gallons
Usage	20.0	
Days	28.9	
Daily	0.7	
Weekly	4.8	
Monthly	21.0	
Yearly	252.3	



REG 13 - 12.5 % Liquid Chlorine

Usage		in Gallons
Usage	60.0	
Days	28.9	
Daily	2.1	
Weekly	14.5	
Monthly	63.1	
Yearly	756.9	



REG 13 - 12.5 % Liquid Chlorine

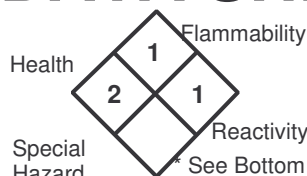
Usage		in Gallons
Usage	80.0	
Days	28.9	
Daily	2.8	
Weekly	19.4	
Monthly	84.1	
Yearly	1,009.1	

MATERIAL SAFETY DATA SHEET



Manufactured by:

ANDERSON
CHEMICAL COMPANY
325 SOUTH DAVIS AVENUE
LITCHFIELD, MINNESOTA 55355
(320) 693-2477



NFPA Hazard Rating*

Health	2
Flammability	1
Reactivity	1
Personal Protection	X

HMIS Hazard Rating*

Product Name: **CA-7110**

24-HOUR EMERGENCY PHONE #: 1-800-424-9300 (CHEMTREC) Revised: 12/3/2004 Imt
Supersedes: 8/29/1996

I. IDENTIFICATION

Chemical Name And Synonyms:
Not applicable

DOT Shipping Name
Not applicable

Chemical Family:

DOT Hazard Class & I.D. Number # PG
Not applicable

II. HAZARDOUS INGREDIENTS

Component	CAS NO.	%	TLV	PEL	Toxic	Hazard
Not applicable					NA	

**Toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR §372).

NA: Not applicable
NE: Not established

III. PHYSICAL DATA

Boiling Point: Not determined.
Specific Gravity: 0.989
Appearance: Clear, amber liquid

Form: Liquid
Solubility in Water: Disperses in water
Odor: Slight amine

pH, Neat: 4.5

IV. FIRE AND EXPLOSION HAZARD DATA

Flashpoint: >200 °F

Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.

Special Fire

Fighting Procedures: Although this product is not combustible, if a fire occurs in the near vicinity, good fire-fighting practice dictates the use of self-contained breathing apparatus and other protective gear.

Unusual Fire And Explosion Hazards: None

V. HEALTH HAZARD DATA

Carcinogenic: The raw materials used in this product are not considered to be a carcinogen by ACGIH and OSHA.

Effects Of Over-exposure: Effects on eyes and skin range from moderate to severe depending on the length of exposure, solution concentration and first aid measures. May cause irritation or corrosion of mucous membranes and the lungs if inhaled.

Emergency And First

Aid Procedures: Eyes: Flush immediately with water or normal saline (minimum of 15 minutes). Get immediate medical attention.
Skin: Wash thoroughly with soap and water. Repeat washing. Remove contaminated clothing and wash before reuse. If irritation persists, get medical attention.
Ingestion: Do NOT induce vomiting. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one to two glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose, or convulsing, do not give fluids by mouth. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility. Note to Physician: No specific antidote is known. Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptoms.
Inhalation: If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.

* NFPA/HMIS Degree or Hazard: 4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant. *Continued On Back*

HMIS A. Safety Glasses B. Safety Glasses, Gloves C. Safety Glasses, Gloves, Apron D. Face Shield, Gloves, Apron E. Safety Glasses, Gloves, Dust Respirator F. Safety Glasses, Gloves, Apron, Dust Respirator G. Safety Glasses, Gloves, Vapor Respirator H. Splash Goggles, Gloves, Apron, Vapor Respirator I. Safety Glasses, Gloves, Vapor and Dust Respirator J. Splash Goggles, Gloves, Apron, Vapor and Dust Respirator K. Air Line, Hood or Mask, Gloves, Full Suit, Boots X. Ask your supervisor for guidance.

VI. REACTIVITY DATA

Stability - Unstable: ☐

Stable: ☒

Conditions To Avoid: None

Incompatibility: Strong acids, strong alkali, strong oxidizers.
(Materials To Avoid)

Hazardous

Decomposition Products: Oxides of carbon, oxides of nitrogen, and /or ammonia.

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Recover as much of the pure product as possible into appropriate containers. Clay, soil, or commercially available absorbents may be used to recover any material that can not readily be recovered as pure product. Flushing material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill /leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials.

Waste Disposal Method: Dispose of in accordance with local, state, and federal regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: Respiratory protection is not normally required. If mist level is high, wear NIOSH approved organic respirator.

Ventilation: Local exhaust should be maintained to control vapor level.

Protective Gloves: Rubber

Eye Protection: Goggles

Protective Clothing: Not needed for normal use. If splashing is anticipated, wear protective clothing.

IX. SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling And Storing:

Store in a cool, dry, well-ventilated place away from incompatible materials.

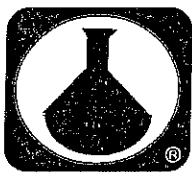
Other Precautions: Safety showers and eyewash stations should be provided in the areas where this product is handled.

X. REVISED INFORMATION

MSDS Status: pH change

MATERIAL SAFETY DATA SHEET

Manufactured by:



**Anderson
Chemical Company**

325 SOUTH DAVIS AVENUE
LITCHFIELD, MINNESOTA 55355
(320) 693-2477

Health	3	Health	0	Flammability
Flammability	0	Health	3	1
Reactivity	1	Special		Reactivity
Personal Protection	X	Hazard		* See Bottom
HMIS Rating System*				of Page
				NFPA Hazard Rating*

Product
Name: **CT-6180**

24-HOUR EMERGENCY PHONE #: 1-800-424-9300 (CHEMTREC)

Revised: 4/14/2010 Imt
Supersedes: 10/2/2003

I. IDENTIFICATION

Chemical Name And Synonyms:

Sulfuric Acid, Oil of Vitriol - Mixture

DOT Shipping Name

Sulfuric Acid, Solution

Chemical Family:

Mineral Acid - Mixture

DOT Hazard Class & I.D. Number

Corrosive Material UN2796

PG

8 II

II. HAZARDOUS INGREDIENTS

Component	CAS NO.	%	TLV	PEL	Toxic	Hazard
Sulfuric Acid	7664-93-9	50	1 mg/m ³	1 mg/m ³	NA	Corrosive to skin, eyes, respiratory tract.

**Toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR §372).

NA: Not applicable
NE: Not established

III. PHYSICAL DATA

Boiling Point: Not determined	Form: Liquid	pH, Neat: <1
Specific Gravity: 1.387	Solubility In Water: Complete	
Appearance: Clear, colorless liquid	Odor: Pungent	

IV. FIRE AND EXPLOSION HAZARD DATA

Flashpoint: Not Applicable

Extinguishing Media: For fires in area, use appropriate media. For example: water spray, dry chemical, carbon dioxide, alcohol foam.

Special Fire Evacuate area of unprotected personnel. Wear protective clothing, including NIOSH-Approved self-contained breathing apparatus.

Fighting Procedures: Cool fire-exposed containers with water spray. Product generates heat upon addition of water, with possible spattering. Run-off from fire control may cause pollution. Neutralize run-off with lime, soda ash, etc., to prevent corrosion of metals and formation of

Unusual Fire And Explosion Hazards: Product may react with some metals (ex.: aluminum, zinc, tin, etc.) to release flammable hydrogen gas.

V. HEALTH HAZARD DATA

Carcinogenic: The raw materials used in this product are not considered to be a carcinogen by ACGIH and OSHA.

Effects Of Over-exposure: EYE CONTACT: CORROSIVE - Causes severe burns and destruction of tissues. Small quantities can result in permanent damage and loss of vision. Contact may cause blindness. SKIN CONTACT: Corrosive to skin. May cause irritating and severe burns to the skin. INHALATION: CORROSIVE - Causes burns to respiratory tract. Inhalation of dust or mists can cause damage to the upper respiratory tract and to the lung tissue depending upon the extent of exposure. INGESTION: CORROSIVE - Ingestion can cause very serious damage to the mouth, esophagus, stomach, and other tissues with which contact is made, and may be fatal. Ingestion may cause death.

Emergency And First Aid Procedures: EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyes open during this flushing with water. CALL A PHYSICIAN IMMEDIATELY.

SKIN: Flush area with water while removing contaminated clothing and shoes. Follow by washing with soap and water.

Do not reuse clothing or shoes until cleaned. CALL A PHYSICIAN. Do not apply oils or ointment unless ordered by the physician.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferable mouth-to-mouth. If breathing is difficult, give oxygen. CALL A PHYSICIAN.

INGESTION: If conscious, rinse mouth with water and give 1-2 glasses of water to dilute. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim.

* NFPA/HMIS Degree or Hazard: 4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant.

Continued On Back

HMIS A. Safety Glasses B. Safety Glasses, Gloves C. Safety Glasses, Gloves, Apron D. Face Shield, Gloves, Apron E. Safety Glasses, Gloves, Apron, Dust Respirator F. Safety Glasses, Gloves, Apron, Dust Respirator G. Safety Glasses, Gloves, Vapor Respirator H. Splash Goggles, Gloves, Apron, Vapor Respirator I. Safety Glasses, Gloves, Vapor and Dust Respirator J. Splash Goggles, Gloves, Apron, Vapor and Dust Respirator K. Air Line, Hood or Mask, Gloves, Full Suit, Boots X. Ask your supervisor for guidance.

VI. REACTIVITY DATA

Stability - Unstable:

Stable: x

Conditions To Avoid: Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product.

Incompatibility: Water. Alkalis. Metals, metal powders such as aluminum, zinc, tin, etc. Strong oxidizing agents (hypochlorites). Reducing agents. Chlorates. Fulminates. Nitrates. Picrates. Cyanides. Sulfides. Carbides. Organic materials.

Hazardous Decomposition Products: Releases sulfur dioxide at extremely high temperatures. May react with certain metals to produce flammable hydrogen gas. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides, carbides, etc.

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Evacuate nonessential personnel. Wear appropriate personal protection equipment. Maintain adequate ventilation. Completely contain spilled material with dikes or sandbags, etc., and prevent run-off into ground or surface waters or sewers. Recover as much material as possible into containers for disposal. Remaining material may be diluted with water and neutralized with sodium bicarbonate or soda ash. Neutralization products, both solid and liquid, must be recovered for disposal.

Waste Disposal Method: Observe all local, state, and federal regulations. Dispose of at approved waste treatment facility. If approved, neutralize material and flush to sewer.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: If recommended exposure limits are exceeded wear: NIOSH-Approved respirator. Do not exceed limits established by the respirator manufacturer. Respiratory protection programs must comply with 29 CFR 1910.134.

Ventilation: Maintain adequate ventilation. Do not use in closed or confined space. Avoid mist formation.

Protective Gloves: Impervious gloves of natural latex or neoprene.

Eye Protection: Chemical safety goggles. Face shield. Do not wear contact lenses.

Protective Clothing: Wear as needed to minimize contact: Rubber apron. Chemical safety shoes. Rubber boots. Protective clothing. Full-rubber acid suit.

IX. SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling And Storing:

Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing vapors and mists. Use with adequate ventilation. Keep containers tightly closed. Do not add water to contents while in container because of violent reaction. Store in a cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Loosen closure carefully. Highly corrosive to most metals with evolution of hydrogen gas. Do not store in unlabeled or mislabeled containers. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do not rinse out container.

Other Precautions Eyewash station and safety shower should be maintained in work area.

X. REVISED INFORMATION

MSDS Status: Updated supplier MSDS

MATERIAL SAFETY DATA SHEET

Manufactured by:



**Anderson
Chemical Company**
325 SOUTH DAVIS AVENUE
LITCHFIELD, MINNESOTA 55355
(320) 693-2477

Health	2	Health	0	Flammability	0
Flammability	0	Health	2	Flammability	0
Reactivity	0	Special		Reactivity	0
Personal Protection	X	Hazard		* See Bottom	
HMIS Rating System*				of Page	
				NFPA Hazard Rating*	

Product
Name: **CT-6525**

24-HOUR EMERGENCY PHONE #: 1-800-424-9300 (CHEMTREC)

Revised: 04/28/2014 Int

Supersedes: 4/8/2010

Chemical Name And Synonyms:

Not applicable.

I. IDENTIFICATION

DOT Shipping Name

Not applicable.

Chemical Family:

Proprietary blend.

DOT Hazard Class & I.D. Number

Not applicable.

PG

II. HAZARDOUS INGREDIENTS

Component	CAS NO.	%	TLV	PEL	Toxic	Hazard
Potassium Hydroxide	1310-58-3	<1	2 mg/M3	2 mg/M3	NA	Corrosive
Trade Secret	TSRN 8500	<1	NE	NE	NA	Corrosive

**Toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR §372).

NA: Not applicable

NE: Not established

III. PHYSICAL DATA

Boiling Point: About 212° F

Specific Gravity: 1.096

Appearance: Clear, light yellow liquid

Form: Liquid

pH, Neat: 10.8-11.2

Solubility In Water: Complete

Odor: Slight azole odor

IV. FIRE AND EXPLOSION HAZARD DATA

Flashpoint: >200°F

Extinguishing Media: Use media appropriate to surrounding fire.

Special Fire Although this product is not combustible, if a fire occurs in the near vicinity, good fire-fighting practice dictates the use of self-

Fighting Procedures: contained breathing apparatus and other protective gear.

Unusual Fire And Spills are slippery. Water should be used to cool closed containers.

Explosion

Hazards:

V. HEALTH HAZARD DATA

Carcinogenic: The raw materials used in this product are *not* considered to be a carcinogen by ACGIH and OSHA.

Effects Of Causes skin and eye irritation and/or burns due to the pH of the concentrate. May be harmful if swallowed. May irritate respiratory

Over-exposure: tract.

Emergency And First Eyes: Immediately flush with water for at least 15 minutes, raising eyelids for complete rinsing. *Get immediate medical attention.*

Aid Procedures: **Skin:** Immediately flush with water for at least 15 minutes while removing contaminated clothing. Wash contaminated clothing before reuse. *Get prompt medical attention* if irritation occurs.

Inhalation: Remove victim to fresh air. If breathing is difficult, *Get immediate medical attention.*

Ingestion: Do NOT induce vomiting. Give large quantities of water or milk. *Get immediate medical attention.* Never give anything by mouth to an unconscious person.

* NFPA/HMIS Degree or Hazard: 4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant.

Continued On Back

HMIS A. Safety Glasses B. Safety Glasses, Gloves C. Safety Glasses, Gloves, Apron D. Face Shield, Gloves, Apron E. Safety Glasses, Gloves, Dust Respirator F. Safety Glasses, Gloves, Apron, Dust Respirator G. Safety Glasses, Gloves, Vapor Respirator H. Splash Goggles, Gloves, Apron, Vapor Respirator I. Safety Glasses, Gloves, Vapor and Dust Respirator J. Splash Goggles, Gloves, Apron, Vapor and Dust Respirator K. Air Line, Hood or Mask, Gloves, Full Suit, Boots X. Ask your supervisor for guidance.

VI. REACTIVITY DATA

Stability - Unstable:

Stable: x

Conditions To Avoid: None known.

Incompatibility: Reacts with strong acids. Avoid contact with aluminum, tin, zinc and their alloys.
(Materials to Avoid)

Hazardous None known.

Decomposition Products:

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Small spills can be diluted with a large amount of water and flushed to sewer. Larger spills, remove unnecessary personnel. Wear appropriate protective gear. Completely contain spilled material with dikes or sandbags, etc., and prevent run-off into ground or surface waters or sewers. Recover as much material as possible into containers for disposal. Neutralize alkalinity by adding a dilute acid (Dilute hydrochloric, dilute sulfuric, or dilute citric acid are acceptable neutralizing agents).

Waste Disposal Method: If material cannot be salvaged, neutralize and then discharge into a treatment system in accordance with local, state and federal regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: Not required for normal use. If mist levels are above TLV, wear an approved NIOSH self-contained breathing apparatus.

Ventilation: Adequate to meet exposure limit for alkaline mist.

Protective Gloves: Rubber or neoprene.

Eye Protection: Chemical goggles.

Protective Clothing: Use appropriate protective clothing to minimize skin contact where liquid splashing or contact is expected.

IX. SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling And Storing:

Store in cool area, avoid contamination. Keep container closed when not in use. Avoid contact with skin and eyes. Use goggles, rubber apron and boots where liquid splashing or contact is expected. Wash thoroughly after handling. Use with adequate ventilation.

Other Precautions Safety showers and eyewash stations should be provided in the areas where this product is handled.

X. REVISED INFORMATION

MSDS Status: Listed the two materials that contribute to the pH of this product. Not previously listed because OSHA does not require a component to be listed at <1% unless it is a carcinogen.

The opinions expressed herein are those of qualified experts within *ANDERSON* Chemical Company. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of *ANDERSON* Chemical Company, it is the user's obligation to determine the conditions of safe use of the product.



SAFETY DATA SHEET

Issue Date 27-Oct-2014

Revision Date 25-Nov-2014

Version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name REG 13

Other means of identification

Product Code 221
UN/ID No. UN1791
Synonyms None
Registration Number(s) 15-150

Recommended use of the chemical and restrictions on use

Recommended Use Liquid Chlorinated Sanitizer.
Uses advised against No information available

Manufacturer Address

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number

Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1
Oxidizing liquids	Category 2

Label elements

Emergency Overview

Danger

Hazard statements

Causes severe skin burns and eye damage
May be corrosive to metals
May intensify fire; oxidizer



Appearance aqueous solution

Physical state liquid

Odor Chlorine

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat
Keep/Store away from clothing/combustible materials
Take any precaution to avoid mixing with combustibles.
Keep only in original container

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
Specific treatment (see Section 4 on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction
Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up
Store in a corrosive resistant container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other Information**

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium hypochlorite	7681-52-9	12.5	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures**

General advice	Immediate medical attention is required.
Eye contact	Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.
Skin Contact	Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.
Inhalation	Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.
Ingestion	Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

Most important symptoms and effects, both acute and delayed**Symptoms**

Liquid and mists are severely irritating and may damage the eyes. The liquid will irritate the skin, causing redness and possible inflammation, or chemical burns to broken skin. Mists and liquid are extremely corrosive to the mouth and throat, mucous membranes and stomach. Swallowing burns the tissues, causes severe abdominal pain, nausea, vomiting, circulatory collapse, confusion, delirium, coma and collapse. Inhalation causes respiratory tract irritation and irritation of mucous membranes. Swallowing large quantities can cause death.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Containers of this material can explode as oxygen is liberated under high heat or fire conditions. Toxic fumes similar to chlorine gas are liberated by contact with acids, ammonia, some detergent cleaners, organic materials, oxidizing agents and some reducing agents. Highly exothermic reactions with organic or oxidizable materials may cause fires in adjacent, heat sensitive materials; Do not store where contact may result with organic or oxidizable materials, e.g., sawdust, paper waste or others. Reacts to form explosive products with amines, ammonia or ammonium salts, methanol, aziridine. Explosive reaction with formic acid (@ 55°C), phenyl acetonitrile, ethylene amine.

Hazardous combustion products At flame temperatures, toxic phosphoric oxide fumes may be emitted.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Evacuate personnel to safe areas. Use personal protective equipment as required.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

Methods for containment

Completely contain spilled material with dikes or sand bags, etc.

Methods for cleaning up

Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling**Advice on safe handling**

Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored.

Incompatible materials

Acids, ammonia, ether, halogenated compounds, oxidizing agents, reducing agents, oxidizable or combustible materials such as wood, cloth or organic materials, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys. Avoid contact with heavy metal such as iron, magnesium, aluminum, manganese, chromium, nickel and their alloys. Avoid contact with leather, wool, organic nitro compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines****Appropriate engineering controls**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin and body protection

If contact is anticipated, wear protective clothing appropriate to use conditions.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Physical state**

liquid

Appearance

aqueous solution

Color

clear light yellow

Odor

Chlorine

Odor threshold

No information available

Property**Values****Remarks • Method**

pH

11.4

1% Solution

Melting point/freezing point

No information available

Boiling point / boiling range

No information available

Flash point

No information available

Evaporation rate

No information available

Flammability (solid, gas)

No information available

Flammability Limit in Air

Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.211
Water solubility	completely soluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

No information available. Excessive heat, exposure to light, reduced alkalinity, contamination of any kind. Reduced alkalinity, contamination of any kind can result in evolution of chlorine (toxic) gas.

Incompatible materials

Acids, ammonia, ether, halogenated compounds, oxidizing agents, reducing agents, oxidizable or combustible materials such as wood, cloth or organic materials, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys. Avoid contact with heavy metal such as iron, magnesium, aluminum, manganese, chromium, nickel and their alloys. Avoid contact with leather, wool, organic nitro compounds.

Hazardous Decomposition Products

Toxic fumes of sodium oxide, HOCl, chlorine, HCl, NaCl, sodium chlorate and oxygen.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	No data available
Inhalation	May cause irritation of respiratory tract.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin Contact	Contact causes severe skin irritation and possible burns.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
---------------	-----------	-------------	-----------------

Sodium hypochlorite 7681-52-9	= 8200 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-
----------------------------------	----------------------	--------------------------	---

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 65600 mg/kg

ATEmix (dermal) 80080 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium hypochlorite 7681-52-9	0.095: 24 h <i>Skeletonema costatum</i> mg/L EC50	0.06 - 0.11: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.5 - 7.6: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.4 - 0.8: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.28 - 1: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.05 - 0.771: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 0.03 - 0.19: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.18 - 0.22: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	2.1: 96 h <i>Daphnia magna</i> mg/L EC50 0.033 - 0.044: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

14. TRANSPORT INFORMATION**DOT**

UN/ID No.	UN1791
Proper shipping name	Hypochlorite solutions
Hazardous ingredients	(sodium hypochlorite)
Hazard Class	8
Packing Group	III

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb	-	-	X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hypochlorite 7681-52-9	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	Health hazards 3	Flammability 0	Instability 1	Physical and Chemical Properties OX
HMIS	Health hazards 3	Flammability 0	Physical hazards 1	Personal protection X

Prepared By kcs
Issue Date 27-Oct-2014
Revision Date 25-Nov-2014

Revision Note

No information available

Disclaimer

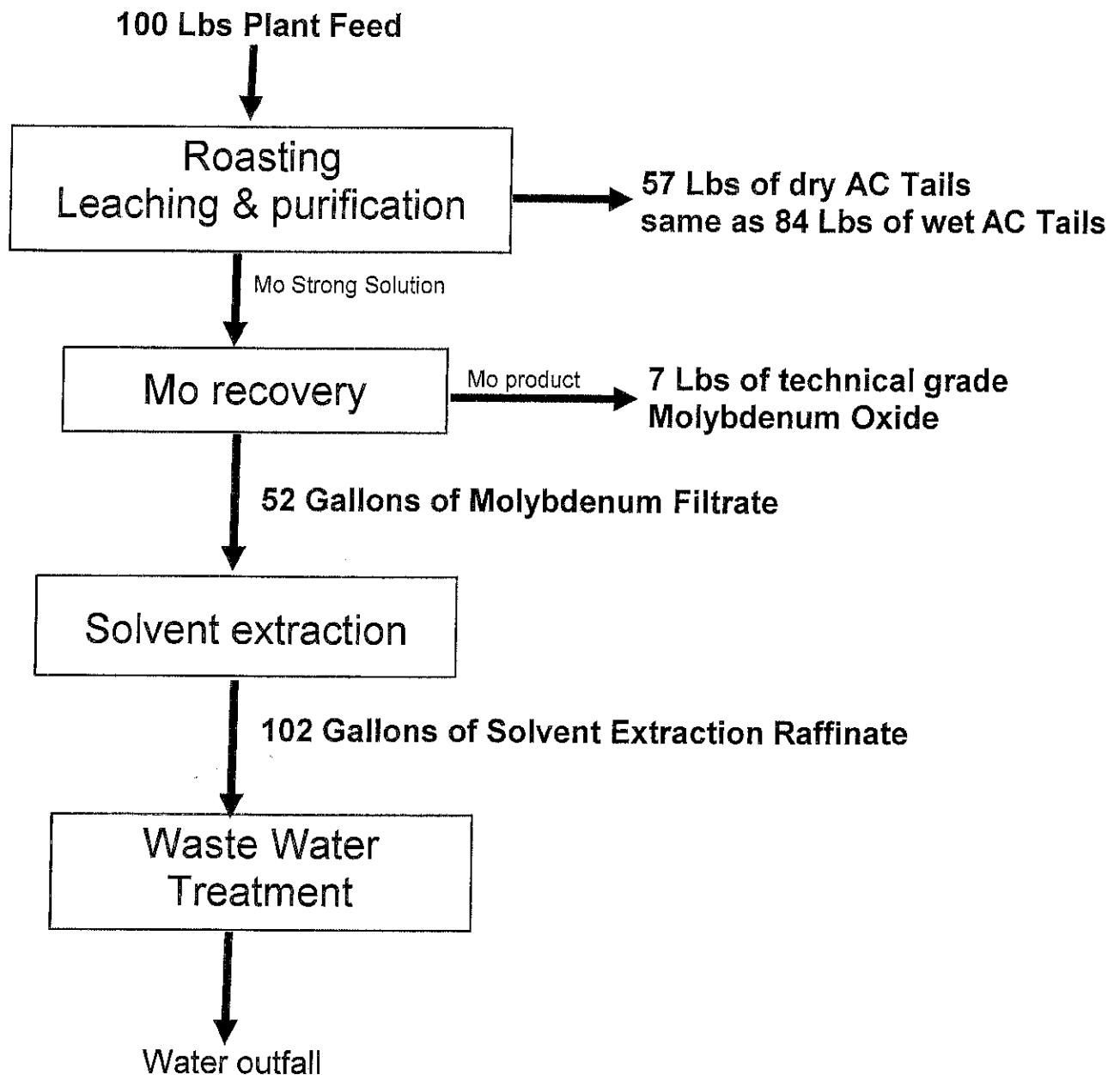
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SECTION 3 ATTACHMENT 7

Attachment 3

Production Breakdowns for Leach Tailings,
Molybdenum Filtrate Solvent Extraction Raffinate
and Technical Grade Molybdenum



SECTION 3 ATTACHMENT 8

Attachment 4

Analytical Laboratory Reports

Technical Report for

Gulf Chemical & Metallurgical Corp.

Permit

SGS Accutest Job Number: TD488

Sampling Date: 03/14/17


Report to:

Gulf Chemical & Metallurgical Corp.
P.O. Box 2290
Freeport, TX 77542
bobby.provence@eramet-gulf.com; robert.marsh@eramet-gulf.com
ATTN: Robert Marsh

Total number of pages in report: 68



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.


Richard Rodriguez
Laboratory Director

Client Service contact: Electa Brown 713-271-4700

Certifications: TX (T104704220-17-26) AR (14-016-0) AZ (AZ0769) FL (E87628)
KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-172) VA (7654)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: TD488-1: PERMIT RENEWEL	6
Section 4: Misc. Forms	15
4.1: Chain of Custody	16
Section 5: GC/MS Volatiles - QC Data Summaries	20
5.1: Method Blank Summary	21
5.2: Blank Spike Summary	23
5.3: Matrix Spike/Matrix Spike Duplicate Summary	25
Section 6: GC/MS Semi-volatiles - QC Data Summaries	27
6.1: Method Blank Summary	28
6.2: Blank Spike/Blank Spike Duplicate Summary	31
Section 7: General Chemistry - QC Data Summaries	34
7.1: Method Blank and Spike Results Summary	35
7.2: Blank Spike Duplicate Results Summary	36
7.3: Duplicate Results Summary	37
7.4: Matrix Spike Results Summary	38
Section 8: Misc. Forms (SGS Accutest New Jersey)	39
8.1: Chain of Custody	40
Section 9: GC Semi-volatiles - QC Data (SGS Accutest New Jersey)	44
9.1: Method Blank Summary	45
9.2: Blank Spike Summary	49
9.3: Blank Spike/Blank Spike Duplicate Summary	50
9.4: Matrix Spike/Matrix Spike Duplicate Summary	51
Section 10: Metals Analysis - QC Data (SGS Accutest New Jersey)	52
10.1: Prep QC MP99302: As,Ba,Cd,Cr,Pb,Se,Ag	53
10.2: Prep QC MP99331: Hg	57
Section 11: Misc. Forms (SGS Accutest Lafayette)	61
11.1: Chain of Custody	62
Section 12: General Chemistry - QC Data (SGS Accutest Lafayette)	65
12.1: Method Blank and Spike Results Summary	66
12.2: Blank Spike Duplicate Results Summary	67
12.3: Duplicate Results Summary	68



Sample Summary

Gulf Chemical & Metallurgical Corp.
Permit

Job No: TD488

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
TD488-1	03/14/17	10:00	03/14/17	AQ Water	PERMIT RENEWEL

Summary of Hits

Job Number: TD488
Account: Gulf Chemical & Metallurgical Corp.
Project: Permit
Collected: 03/14/17

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD488-1 PERMIT RENEWEL						
Acetone		0.119	0.050	0.010	mg/l	EPA 624
Bromoform		0.0016	0.0010	0.00030	mg/l	EPA 624
Chlorobenzene		0.00050 J	0.0010	0.00030	mg/l	EPA 624
Chloroform		0.00067 J	0.0010	0.00030	mg/l	EPA 624
2-Hexanone		0.0158	0.010	0.0012	mg/l	EPA 624
4-Methyl-2-pentanone		0.0100	0.010	0.0023	mg/l	EPA 624
Methyl chloride		0.00053 J	0.0010	0.00030	mg/l	EPA 624
Methyl ethyl ketone		0.0699	0.010	0.0026	mg/l	EPA 624
Arsenic ^a		0.171	0.010	0.00034	mg/l	EPA 200.8
Barium ^a		0.0130	0.010	0.00028	mg/l	EPA 200.8
Lead ^a		0.00027 B	0.0050	0.00011	mg/l	EPA 200.8
Mercury ^b		0.000055 B	0.00020	0.000055	mg/l	EPA 245.1
Selenium ^a		0.530	0.010	0.0012	mg/l	EPA 200.8
Silver ^a		0.00072 B	0.020	0.00041	mg/l	EPA 200.8
BOD, 5 Day		13.5	6.0	3.0	mg/l	SM 5210B-2000
Nitrogen, Ammonia		111	5.0	1.0	mg/l	EPA 350.1
Nitrogen, Nitrite ^c		125	10	5.4	mg/l	EPA 300
Phosphorus, Total		0.33	0.020	0.010	mg/l	SM 4500PE-2011
Surfactants, MBAS as LAS ^d		0.28	0.10	0.080	mg/l	SM5540 C-11

- (a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.
 (b) Analysis performed at SGS Accutest, Dayton, NJ.
 (c) Elevated reporting limit due to matrix interference.
 (d) Analysis performed at SGS Accutest, Lafayette, LA.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/14/17
Lab Sample ID:	TD488-1	Date Received:	03/14/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0058162.D	1	03/18/17	EM	n/a	n/a	VE2575
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.119	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00030	mg/l	
75-25-2	Bromoform	0.0016	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	0.00050	0.0010	0.00030	mg/l	J
75-00-3	Chloroethane	ND	0.0010	0.00033	mg/l	
67-66-3	Chloroform	0.00067	0.0010	0.00030	mg/l	J
75-15-0	Carbon disulfide	ND	0.0050	0.00075	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00054	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00030	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00030	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00030	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00030	mg/l	
591-78-6	2-Hexanone	0.0158	0.010	0.0012	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0100	0.010	0.0023	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00049	mg/l	
74-87-3	Methyl chloride	0.00053	0.0010	0.00030	mg/l	J
75-09-2	Methylene chloride	ND	0.0050	0.0013	mg/l	
78-93-3	Methyl ethyl ketone	0.0699	0.010	0.0026	mg/l	
100-42-5	Styrene	ND	0.0010	0.00030	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00030	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00030	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00030	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00030	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD488-1
Matrix: AQ - Water
Method: EPA 624
Project: Permit

Date Sampled: 03/14/17
Date Received: 03/14/17
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	0.0010	0.00030	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00065	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		72-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	97%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/14/17
Lab Sample ID:	TD488-1	Date Received:	03/14/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J186360.D	1	03/18/17	SC	03/17/17	OP43083	EJ2499
Run #2	J186361.D	10	03/18/17	SC	03/17/17	OP43083	EJ2499

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2	980 ml	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.020	0.0017	mg/l	
95-57-8	2-Chlorophenol	ND	0.0051	0.0014	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0051	0.0018	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	0.0020	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	0.0011	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.0012	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0039	mg/l	
95-48-7	2-Methylphenol	ND	0.0051	0.0014	mg/l	
	3&4-Methylphenol	ND	0.0051	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0051	0.0018	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.013	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.0033	mg/l	
108-95-2	Phenol	ND	0.0051	0.0012	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	0.0020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	0.0015	mg/l	
83-32-9	Acenaphthene	ND	0.0051	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0051	0.0017	mg/l	
120-12-7	Anthracene	ND	0.0051	0.0019	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0051	0.0018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0051	0.0021	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0051	0.0023	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0051	0.0020	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0051	0.0021	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0051	0.0019	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0051	0.0019	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0051	0.0017	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	0.0020	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	0.0017	mg/l	
86-74-8	Carbazole	ND	0.0051	0.0019	mg/l	
218-01-9	Chrysene	ND	0.0051	0.0018	mg/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0051	0.0019	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	0.0016	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD488-1
Matrix: AQ - Water
Method: EPA 625 EPA 625
Project: Permit

Date Sampled: 03/14/17
Date Received: 03/14/17
Percent Solids: n/a

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0051	0.0016	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0051	0.0019	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0051	0.0018	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0051	0.0016	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0051	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0051	0.0021	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	0.0019	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0020	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0051	0.0022	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	0.0018	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0051	0.0020	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0051	0.0026	mg/l	
84-66-2	Diethyl phthalate	ND	0.0051	0.0019	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0051	0.0020	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0051	0.0020	mg/l	
206-44-0	Fluoranthene	ND	0.0051	0.0022	mg/l	
86-73-7	Fluorene	ND	0.0051	0.0018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0051	0.0020	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0051	0.0020	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0017	mg/l	
67-72-1	Hexachloroethane	ND	0.0051	0.0018	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0051	0.0024	mg/l	
78-59-1	Isophorone	ND	0.0051	0.0019	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0051	0.0016	mg/l	
88-74-4	2-Nitroaniline	ND	0.0051	0.0019	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	0.0016	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	0.0025	mg/l	
91-20-3	Naphthalene	ND	0.0051	0.0018	mg/l	
98-95-3	Nitrobenzene	ND	0.0051	0.0017	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	0.0020	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	0.0019	mg/l	
85-01-8	Phenanthrene	ND	0.0051	0.0019	mg/l	
129-00-0	Pyrene	ND	0.0051	0.0018	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	0.0018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%	33%	10-66%
4165-62-2	Phenol-d5	39%	27%	10-63%
118-79-6	2,4,6-Tribromophenol	20% ^a	34%	32-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/14/17
Lab Sample ID:	TD488-1	Date Received:	03/14/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%	71%	29-115%
321-60-8	2-Fluorobiphenyl	65%	59%	34-113%
1718-51-0	Terphenyl-d14	54%	49%	23-138%

(a) Outside control limits biased low. Confirmed by reanalysis.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/14/17
Lab Sample ID:	TD488-1	Date Received:	03/14/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 608 EPA 608		
Project:	Permit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6G45118.D	1	03/21/17	ANJ	03/20/17	N:OP1248	N:G6G1288
Run #2 ^a	2G144055.D	1	03/21/17	ANJ	03/20/17	N:OP1247	N:G2G3968

	Initial Volume	Final Volume
Run #1	990 ml	5.0 ml
Run #2	990 ml	5.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0000100	0.000003	mg/l	
319-84-6	alpha-BHC	ND	0.0000100	0.000003	mg/l	
319-85-7	beta-BHC	ND	0.0000100	0.000002	mg/l	
319-86-8	delta-BHC	ND	0.0000100	0.000002	mg/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0000100	0.000001	mg/l	
12789-03-6	Chlordane	ND	0.00010	0.000057	mg/l	
60-57-1	Dieldrin	ND	0.0000100	0.000001	mg/l	
72-54-8	4,4' -DDD	ND	0.0000100	0.000001	mg/l	
72-55-9	4,4' -DDE	ND	0.0000100	0.000003	mg/l	
50-29-3	4,4' -DDT	ND	0.0000100	0.000002	mg/l	
72-20-8	Endrin	ND	0.0000100	0.000002	mg/l	
1031-07-8	Endosulfan sulfate	ND	0.0000100	0.000002	mg/l	
7421-93-4	Endrin aldehyde	ND	0.0000100	0.000002	mg/l	
959-98-8	Endosulfan-I	ND	0.0000100	0.000002	mg/l	
33213-65-9	Endosulfan-II	ND	0.0000100	0.000002	mg/l	
76-44-8	Heptachlor	ND	0.0000100	0.000001	mg/l	
1024-57-3	Heptachlor epoxide	ND	0.0000100	0.000003	mg/l	
72-43-5	Methoxychlor	ND	0.0000100	0.000002	mg/l	
8001-35-2	Toxaphene	ND	0.00013	0.000093	mg/l	
12674-11-2	Aroclor 1016	ND ^b	0.00025	0.00017	mg/l	
11104-28-2	Aroclor 1221	ND ^b	0.00025	0.00015	mg/l	
11141-16-5	Aroclor 1232	ND ^b	0.00025	0.00010	mg/l	
53469-21-9	Aroclor 1242	ND ^b	0.00025	0.00014	mg/l	
12672-29-6	Aroclor 1248	ND ^b	0.00025	0.00013	mg/l	
11097-69-1	Aroclor 1254	ND ^b	0.00025	0.00017	mg/l	
11096-82-5	Aroclor 1260	ND ^b	0.00025	0.00014	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%	74%	10-156%
877-09-8	Tetrachloro-m-xylene	92%	79%	10-156%
2051-24-3	Decachlorobiphenyl	81%	46%	10-143%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/14/17
Lab Sample ID:	TD488-1	Date Received:	03/14/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 608 EPA 608		
Project:	Permit		

PCB List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	68%	60%	10-143%

(a) Analysis performed at SGS Accutest, Dayton, NJ.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL

Lab Sample ID: TD488-1

Matrix: AQ - Water

Project: Permit

Date Sampled: 03/14/17

Date Received: 03/14/17

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Arsenic ^a	0.171	0.010	0.00034	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Barium ^a	0.0130	0.010	0.00028	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Cadmium ^a	0.0012 U	0.0050	0.0012	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Chromium ^a	0.0010 U	0.040	0.0010	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Lead ^a	0.00027 B	0.0050	0.00011	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Mercury ^b	0.000055 B	0.00020	0.000055	mg/l	1	03/20/17	03/20/17	ANJ	EPA 245.1 ²	EPA 245.1 ⁴
Selenium ^a	0.530	0.010	0.0012	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Silver ^a	0.00072 B	0.020	0.00041	mg/l	10	03/17/17	03/18/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³

(1) Instrument QC Batch: N:MA41590

(2) Instrument QC Batch: N:MA41595

(3) Prep QC Batch: N:MP99302

(4) Prep QC Batch: N:MP99331

(a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.

(b) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: PERMIT RENEWEL**Lab Sample ID:** TD488-1**Matrix:** AQ - Water**Project:** Permit**Date Sampled:** 03/14/17**Date Received:** 03/14/17**Percent Solids:** n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
BOD, 5 Day	13.5	6.0	3.0	mg/l	1	03/14/17 18:45 OZ	SM	5210B-2000
Nitrogen, Ammonia	111	5.0	1.0	mg/l	50	03/15/17 TH	EPA	350.1
Nitrogen, Nitrate ^a	5.4 U	10	5.4	mg/l	20	03/15/17 11:07 ES	EPA	300
Nitrogen, Nitrite ^a	125	10	5.4	mg/l	20	03/15/17 11:07 ES	EPA	300
Phosphorus, Total	0.33	0.020	0.010	mg/l	1	03/24/17 BG	SM	4500PE-2011
Sulfide	0.010 U	0.20	0.010	mg/l	1	03/16/17 TH	SM	4500S+ F-2000
Sulfite	0.77 U	3.0	0.77	mg/l	1	03/16/17 08:45 CV	SM	4500 SO32 B-2011
Surfactants, MBAS as LAS ^b	0.28	0.10	0.080	mg/l	1	03/16/17 08:45 ALAS	SM	5540 C-11

(a) Elevated reporting limit due to matrix interference.

(b) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

PAGE __ OF __

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # TD488	
Client / Reporting Information		Project Information	
Company Name Gulf Chemical & Metallurgical		Project Name	
302 Midway City State Zip		Permit Street	
Freeport Texas 77541		Billing Information (if different from Report to)	
Project Contact E-mail		Company Name	
Phone # Fax #		Gulf Chemical & Metallurgical	
979-415-1537		Street Address	
Sample(s) Name(s)		Project #	
Emanuel Alvarado		Client Purchase Order #	
Project Manager		City State Zip	
Attention:			
Collection		Number of preserved Bottles	
Field ID / Point of Collection			
Date Time			
Sampled By			
Matrix			
# of bottles			
HCl			
NaOH			
Zn(NO ₃) ₂			
HNO ₃			
H ₂ SO ₄			
NONE			
DI Water			
MEDIH			
TSP			
ENCORE			
OTHER			
VOC-624			
SVOC-625			
Pest/PCB-608			
200.8-Metals-NJ			
NO ₃ ,NO ₂ ,SO ₃			
MBAS-Lafayette			
Sulfide			
Ammonia/TP04			
BOD			
LAB USE ONLY			
Turnaround Time (Business days)			
Approved By (Accutest PM): / Date:		Data Deliverable Information	
<input type="checkbox"/> Standard		<input type="checkbox"/> Commercial "A" (Level 1)	
<input type="checkbox"/> 5 Day RUSH		<input type="checkbox"/> Commercial "B" (Level 2)	
<input type="checkbox"/> 4 Day RUSH		<input type="checkbox"/> FULT1 (Level 3+4)	
<input type="checkbox"/> 3 Day RUSH		<input type="checkbox"/> REDT1 (Level 3+4)	
<input type="checkbox"/> 2 Day RUSH		<input type="checkbox"/> Commercial "C"	
<input type="checkbox"/> 1 Day EMERGENCY			
Emergency & Rush T/A data available VIA Lablink		Commercial "A" = Results Only	
		Commercial "B" = Results + QC Summary	
		Commercial "C" = Results + QC & Surrogate Summary	
Relinquished by Sampler		Relinquished By	
Date Time		Date Time	
Relinquished by Sampler		Relinquished By	
Date Time		Date Time	
Relinquished by:		Relinquished By	
Date Time		Date Time	
Received By		Received By	
Date Time		Date Time	
Received By		Received By	
Date Time		Date Time	
Custody Seal #		Custody Seal #	
<input type="checkbox"/> Intact		<input type="checkbox"/> Intact	
<input type="checkbox"/> Not intact		<input type="checkbox"/> Not intact	
Preserved where applicable		Preserved where applicable	
On Ice		On Ice	
Cooler Temp.		Cooler Temp.	

TD488: Chain of Custody

Page 1 of 4





ACCUTEST

COOLER TEMP FORM

TC# TD488

Delivered by (circle one):

FedEx/UPS

ALGC Driver

Client

Date:

3-14-17

Client:

Gulf Chemical

Cooler Number:

IK-5

CF, °C

0.0

Corrected Temp, °C

3.9

SAMPLES CONTAINED IN COOLER

(2) AG NP
(2) AG SUB
(7) 100 NP (1100 SUB)
(1) 500 NP
(1) 500 H2SO4
(1) 500 SUB
(1) 250 NP/2d
(3) VULF



Client: Gulf Chemical

Project: Permit Containment

Attn: Bobby Proven

Cooler: 2 of 4

SGS Accutest Sample Receipt Summary

Page 1 of 2

Job Number: TD488 Client: GULF CHEMICAL Project: PERMIT
 Date / Time Received: _____ Delivery Method: _____ Airbill #s: _____
 No. Coolers: 1 Therm ID: IR-5; Temp Adjustment Factor: 0;
 Cooler Temps (Initial/Adjusted): #1: (3.9/3.9);

Cooler Security Y or N Y or N
 1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
 2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature Y or N
 1. Temp criteria achieved: ☒ ☐
 2. Cooler temp verification: _____
 3. Cooler media: Ice (Bag)

Quality Control Preservation Y or N N/A WTB STB
 1. Trip Blank present / cooler: ☐ ☐ ☒ ☐ ☐
 2. Trip Blank listed on COC: ☐ ☐ ☒
 3. Samples preserved properly: ☒ ☐
 4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles: ☒ ☐
 2. Container labeling complete: ☒ ☐
 3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
 1. Sample recvd within HT: ☒ ☐
 2. All containers accounted for: ☒ ☐
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear: ☒ ☐
 2. Bottles received for unspecified tests ☐ ☒
 3. Sufficient volume recvd for analysis: ☒ ☐
 4. Compositing instructions clear: ☐ ☐ ☒
 5. Filtering instructions clear: ☐ ☐ ☒

Comments Matrix is water.

TD488: Chain of Custody
 Page 3 of 4

Sample Receipt Log

Page 2 of 2

Job #: TD488

Date / Time Received: 3/14/2017 3:45:00 PM

Initials: DS

Client: GULF CHEMICAL

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD488-1	LAG	1	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	LAG	2	4V	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	LAG	3	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	LAG	4	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	1000ml	5	3N	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	1000ml	6	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	500ml	7	3N	N/P	Note #2 - Preservative check not applicable.	IR-5	3.9	0	3.9
1	TD488-1	500ml	8	1I	H2SO4	pH < 2	IR-5	3.9	0	3.9
1	TD488-1	500ml	9	SUB	HNO3	pH < 2	IR-5	3.9	0	3.9
1	TD488-1	250ml	10	1I	NaOH+ZnAc	pH > 12	IR-5	3.9	0	3.9
1	TD488-1	40ml	11	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3.9	0	3.9
1	TD488-1	40ml	12	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3.9	0	3.9
1	TD488-1	40ml	13	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3.9	0	3.9

TD488: Chain of Custody

Page 4 of 4

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: TD488

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2575-MB	E0058152.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples:

Method: EPA 624

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.30	ug/l	
75-25-2	Bromoform	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.33	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.75	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	1.2	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.3	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.49	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
100-42-5	Styrene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.30	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.65	ug/l	

Method Blank Summary

Job Number: TD488
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2575-MB	E0058152.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples: Method: EPA 624

TD488-1

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 72-122%
17060-07-0	1,2-Dichloroethane-D4	94% 68-124%
2037-26-5	Toluene-D8	89% 80-119%
460-00-4	4-Bromofluorobenzene	101% 72-126%

Blank Spike Summary

Page 1 of 2

Job Number: TD488**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2575-BS	E0058150.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples:**Method:** EPA 624

TD488-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	102	82	46-129
71-43-2	Benzene	25	25.9	104	68-119
75-27-4	Bromodichloromethane	25	23.9	96	72-118
75-25-2	Bromoform	25	22.3	89	54-123
108-90-7	Chlorobenzene	25	25.4	102	74-120
75-00-3	Chloroethane	25	22.1	88	61-132
67-66-3	Chloroform	25	24.6	98	73-122
75-15-0	Carbon disulfide	25	29.1	116	55-140
56-23-5	Carbon tetrachloride	25	26.0	104	68-133
75-34-3	1,1-Dichloroethane	25	27.8	111	72-121
75-35-4	1,1-Dichloroethylene	25	28.4	114	67-140
107-06-2	1,2-Dichloroethane	25	23.4	94	68-121
78-87-5	1,2-Dichloropropane	25	23.4	94	72-116
124-48-1	Dibromochloromethane	25	26.5	106	68-119
156-59-2	cis-1,2-Dichloroethylene	25	26.0	104	72-117
10061-01-5	cis-1,3-Dichloropropene	25	24.2	97	71-118
156-60-5	trans-1,2-Dichloroethylene	25	29.8	119	68-124
10061-02-6	trans-1,3-Dichloropropene	25	24.0	96	72-127
100-41-4	Ethylbenzene	25	26.5	106	71-117
591-78-6	2-Hexanone	125	117	94	49-124
108-10-1	4-Methyl-2-pentanone	125	109	87	54-122
74-83-9	Methyl bromide	25	21.7	87	53-138
74-87-3	Methyl chloride	25	20.7	83	50-145
75-09-2	Methylene chloride	25	25.8	103	60-125
78-93-3	Methyl ethyl ketone	125	119	95	51-129
100-42-5	Styrene	25	25.0	100	74-119
71-55-6	1,1,1-Trichloroethane	25	25.4	102	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	23.3	93	62-121
79-00-5	1,1,2-Trichloroethane	25	24.6	98	70-119
127-18-4	Tetrachloroethylene	25	26.5	106	72-132
108-88-3	Toluene	25	25.5	102	73-119
79-01-6	Trichloroethylene	25	26.0	104	73-121
75-01-4	Vinyl chloride	25	22.1	88	54-126
1330-20-7	Xylene (total)	75	81.6	109	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD488
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2575-BS	E0058150.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples: Method: EPA 624

TD488-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	72-122%
17060-07-0	1,2-Dichloroethane-D4	93%	68-124%
2037-26-5	Toluene-D8	100%	80-119%
460-00-4	4-Bromofluorobenzene	98%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: TD488
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD545-1MS	E0058154.D	1	03/18/17	EM	n/a	n/a	VE2575
TD545-1MSD	E0058155.D	1	03/18/17	EM	n/a	n/a	VE2575
TD545-1	E0058153.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples:

Method: EPA 624

TD488-1

CAS No.	Compound	TD545-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	84.6		125	81	125	185	80	1	46-129/25
71-43-2	Benzene	1.3		25	96	25	27.6	105	9	68-119/12
75-27-4	Bromodichloromethane	ND		25	85	25	23.7	95	11	72-118/16
75-25-2	Bromoform	ND		25	78	25	21.7	87	10	54-123/17
108-90-7	Chlorobenzene	89.8		25	81	25	121	125* a	10	74-120/12
75-00-3	Chloroethane	ND		25	84	25	21.7	87	4	61-132/16
67-66-3	Chloroform	3.8		25	88	25	28.3	98	9	73-122/13
75-15-0	Carbon disulfide	ND		25	99	25	27.8	111	11	55-140/24
56-23-5	Carbon tetrachloride	ND		25	92	25	25.7	103	11	68-133/20
75-34-3	1,1-Dichloroethane	ND		25	99	25	27.4	110	10	72-121/14
75-35-4	1,1-Dichloroethylene	ND		25	102	25	28.2	113	10	67-140/18
107-06-2	1,2-Dichloroethane	ND		25	85	25	23.3	93	9	68-121/12
78-87-5	1,2-Dichloropropane	ND		25	83	25	23.2	93	11	72-116/12
124-48-1	Dibromochloromethane	ND		25	93	25	26.0	104	11	68-119/15
156-59-2	cis-1,2-Dichloroethylene	ND		25	94	25	26.0	104	11	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	84	25	23.2	93	10	71-118/18
156-60-5	trans-1,2-Dichloroethylene	ND		25	107	25	29.3	117	9	68-124/15
10061-02-6	trans-1,3-Dichloropropene	ND		25	84	25	23.3	93	11	72-127/17
100-41-4	Ethylbenzene	ND		25	94	25	25.9	104	10	71-117/12
591-78-6	2-Hexanone	ND		125	94	125	121	97	3	49-124/21
108-10-1	4-Methyl-2-pentanone	ND		125	86	125	112	90	5	54-122/20
74-83-9	Methyl bromide	ND		25	79	25	21.2	85	7	53-138/16
74-87-3	Methyl chloride	0.98	J	25	76	25	21.2	81	6	50-145/17
75-09-2	Methylene chloride	1.4	J	25	91	25	26.6	101	10	60-125/16
78-93-3	Methyl ethyl ketone	ND		125	98	125	124	99	1	51-129/22
100-42-5	Styrene	ND		25	84	25	23.3	93	10	74-119/19
71-55-6	1,1,1-Trichloroethane	ND		25	92	25	25.4	102	10	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	86	25	23.0	92	7	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		25	88	25	24.3	97	10	70-119/13
127-18-4	Tetrachloroethylene	ND		25	92	25	25.3	101	9	72-132/14
108-88-3	Toluene	ND		25	92	25	25.1	100	9	73-119/13
79-01-6	Trichloroethylene	ND		25	93	25	25.6	102	10	73-121/13
75-01-4	Vinyl chloride	ND		25	83	25	21.8	87	5	54-126/17
1330-20-7	Xylene (total)	ND		75	96	75	79.8	106	10	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD488
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD545-1MS	E0058154.D	1	03/18/17	EM	n/a	n/a	VE2575
TD545-1MSD	E0058155.D	1	03/18/17	EM	n/a	n/a	VE2575
TD545-1	E0058153.D	1	03/18/17	EM	n/a	n/a	VE2575

The QC reported here applies to the following samples: Method: EPA 624

TD488-1

CAS No.	Surrogate Recoveries	MS	MSD	TD545-1	Limits
1868-53-7	Dibromofluoromethane	99%	99%	99%	72-122%
17060-07-0	1,2-Dichloroethane-D4	94%	94%	95%	68-124%
2037-26-5	Toluene-D8	100%	100%	89%	80-119%
460-00-4	4-Bromofluorobenzene	98%	96%	101%	72-126%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: TD488

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-MB	J186336A.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples:

Method: EPA 625

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	0.86	ug/l	
95-57-8	2-Chlorophenol	ND	2.5	0.69	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	2.5	0.88	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.5	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	2.5	0.52	ug/l	
51-28-5	2,4-Dinitrophenol	ND	13	0.61	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.9	ug/l	
95-48-7	2-Methylphenol	ND	2.5	0.71	ug/l	
	3&4-Methylphenol	ND	2.5	0.77	ug/l	
88-75-5	2-Nitrophenol	ND	2.5	0.90	ug/l	
100-02-7	4-Nitrophenol	ND	13	6.3	ug/l	
87-86-5	Pentachlorophenol	ND	13	1.6	ug/l	
108-95-2	Phenol	ND	2.5	0.60	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	2.5	0.97	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.5	0.75	ug/l	
83-32-9	Acenaphthene	ND	2.5	0.83	ug/l	
208-96-8	Acenaphthylene	ND	2.5	0.84	ug/l	
120-12-7	Anthracene	ND	2.5	0.93	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.5	0.89	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.5	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.5	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.5	1.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.5	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.5	0.95	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.5	0.92	ug/l	
100-51-6	Benzyl Alcohol	ND	2.5	0.82	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.5	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	2.5	0.85	ug/l	
86-74-8	Carbazole	ND	2.5	0.95	ug/l	
218-01-9	Chrysene	ND	2.5	0.87	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.5	0.93	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.5	0.78	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.5	0.80	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.5	0.92	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.88	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.79	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: TD488**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-MB	J186336A.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples:**Method:** EPA 625

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.82	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.5	1.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.5	0.93	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.5	1.1	ug/l	
132-64-9	Dibenzofuran	ND	2.5	0.89	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.5	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.5	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	2.5	0.93	ug/l	
131-11-3	Dimethyl phthalate	ND	2.5	0.98	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.5	0.96	ug/l	
206-44-0	Fluoranthene	ND	2.5	1.1	ug/l	
86-73-7	Fluorene	ND	2.5	0.89	ug/l	
118-74-1	Hexachlorobenzene	ND	2.5	0.99	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.5	0.97	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	0.81	ug/l	
67-72-1	Hexachloroethane	ND	2.5	0.87	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.5	1.2	ug/l	
78-59-1	Isophorone	ND	2.5	0.91	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.5	0.80	ug/l	
88-74-4	2-Nitroaniline	ND	2.5	0.94	ug/l	
99-09-2	3-Nitroaniline	ND	2.5	0.80	ug/l	
100-01-6	4-Nitroaniline	ND	2.5	1.2	ug/l	
91-20-3	Naphthalene	ND	2.5	0.88	ug/l	
98-95-3	Nitrobenzene	ND	2.5	0.84	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.5	0.97	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	2.5	0.91	ug/l	
85-01-8	Phenanthrene	ND	2.5	0.94	ug/l	
129-00-0	Pyrene	ND	2.5	0.90	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.90	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	26% 10-66%
4165-62-2	Phenol-d5	18% 10-63%

Method Blank Summary

Job Number: TD488
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-MB	J186336A.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples: Method: EPA 625

TD488-1

CAS No.	Surrogate Recoveries	Limits
118-79-6	2,4,6-Tribromophenol	80% 32-128%
4165-60-0	Nitrobenzene-d5	82% 29-115%
321-60-8	2-Fluorobiphenyl	70% 34-113%
1718-51-0	Terphenyl-d14	112% 23-138%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: TD488

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-BS	J186338.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499
OP43083-BSD ^a	J186339.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples:

Method: EPA 625

TD488-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	34.3	34	35.1	35	2	10-91/30
95-57-8	2-Chlorophenol	50	31.9	64	33.1	66	4	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	39.6	79	39.7	79	0	30-110/30
120-83-2	2,4-Dichlorophenol	50	43.7	87	43.1	86	1	41-107/30
105-67-9	2,4-Dimethylphenol	50	37.4	75	38.5	77	3	39-107/30
51-28-5	2,4-Dinitrophenol	50	44.1	88	45.1	90	2	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	57.7	115	55.9	112	3	40-121/30
95-48-7	2-Methylphenol	50	27.7	55	27.4	55	1	33-93/30
	3&4-Methylphenol	50	30.0	60	30.7	61	2	28-99/30
88-75-5	2-Nitrophenol	50	46.3	93	46.3	93	0	38-107/30
100-02-7	4-Nitrophenol	50	20.7	41	20.5	41	1	10-78/30
87-86-5	Pentachlorophenol	50	41.7	83	40.4	81	3	28-116/30
108-95-2	Phenol	50	16.4	33	16.2	32	1	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	46.8	94	44.6	89	5	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	49.7	99	48.6	97	2	44-112/30
83-32-9	Acenaphthene	50	49.5	99	48.0	96	3	44-106/30
208-96-8	Acenaphthylene	50	51.0	102	49.4	99	3	46-111/30
120-12-7	Anthracene	50	49.1	98	47.7	95	3	53-114/30
56-55-3	Benzo(a)anthracene	50	49.4	99	49.9	100	1	57-113/30
50-32-8	Benzo(a)pyrene	50	50.5	101	49.4	99	2	50-109/30
205-99-2	Benzo(b)fluoranthene	50	54.0	108	53.3	107	1	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	52.8	106	51.5	103	2	43-127/30
207-08-9	Benzo(k)fluoranthene	50	51.4	103	50.7	101	1	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	52.3	105	50.7	101	3	48-113/30
85-68-7	Butyl benzyl phthalate	50	54.8	110	54.1	108	1	42-120/30
100-51-6	Benzyl Alcohol	50	34.8	70	35.3	71	1	31-97/30
91-58-7	2-Chloronaphthalene	50	51.1	102	50.5	101	1	35-123/30
106-47-8	4-Chloroaniline	50	42.6	85	43.3	87	2	36-104/30
86-74-8	Carbazole	50	49.7	99	49.2	98	1	50-113/30
218-01-9	Chrysene	50	48.9	98	49.2	98	1	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	47.0	94	47.6	95	1	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	45.3	91	45.7	91	1	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	47.9	96	47.9	96	0	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	55.3	111	53.7	107	3	45-112/30
95-50-1	1,2-Dichlorobenzene	50	46.2	92	45.2	90	2	37-100/30
541-73-1	1,3-Dichlorobenzene	50	44.2	88	43.4	87	2	34-99/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: TD488

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-BS	J186338.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499
OP43083-BSD ^a	J186339.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples:

Method: EPA 625

TD488-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	50	44.4	89	44.2	88	0	36-99/30
121-14-2	2,4-Dinitrotoluene	50	62.2	124* ^b	59.3	119* ^b	5	52-115/30
606-20-2	2,6-Dinitrotoluene	50	58.3	117* ^b	57.4	115* ^b	2	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	48.0	96	47.2	94	2	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	52.3	105	52.3	105	0	47-125/30
132-64-9	Dibenzofuran	50	53.1	106	52.0	104	2	45-108/30
84-74-2	Di-n-butyl phthalate	50	54.6	109	53.5	107	2	47-118/30
117-84-0	Di-n-octyl phthalate	50	54.6	109	53.9	108	1	41-124/30
84-66-2	Diethyl phthalate	50	53.4	107	53.5	107	0	38-121/30
131-11-3	Dimethyl phthalate	50	52.6	105	50.6	101	4	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.8	106	51.6	103	2	50-123/30
206-44-0	Fluoranthene	50	49.6	99	49.0	98	1	50-118/30
86-73-7	Fluorene	50	53.9	108	52.4	105	3	47-113/30
118-74-1	Hexachlorobenzene	50	55.9	112	54.3	109	3	49-114/30
87-68-3	Hexachlorobutadiene	100	94.2	94	95.9	96	2	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	18.4	37	19.0	38	3	10-97/30
67-72-1	Hexachloroethane	50	45.1	90	45.1	90	0	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	52.9	106	52.1	104	2	45-127/30
78-59-1	Isophorone	50	50.7	101	50.9	102	0	40-103/30
91-57-6	2-Methylnaphthalene	50	46.5	93	47.3	95	2	36-104/30
88-74-4	2-Nitroaniline	50	52.4	105	51.0	102	3	41-117/30
99-09-2	3-Nitroaniline	50	46.1	92	45.8	92	1	37-117/30
100-01-6	4-Nitroaniline	50	46.4	93	45.0	90	3	47-121/30
91-20-3	Naphthalene	50	46.4	93	46.6	93	0	40-104/30
98-95-3	Nitrobenzene	50	54.0	108* ^b	54.1	108* ^b	0	40-103/30
621-64-7	N-Nitroso-di-n-propylamine	50	52.9	106	53.7	107	2	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	99.7	100	98.2	98	2	39-109/30
85-01-8	Phenanthrene	50	49.9	100	48.4	97	3	53-114/30
129-00-0	Pyrene	50	52.0	104	52.2	104	0	51-117/30
120-82-1	1,2,4-Trichlorobenzene	50	47.6	95	46.5	93	2	32-103/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	38%	37%	10-66%
4165-62-2	Phenol-d5	28%	29%	10-63%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: TD488

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43083-BS	J186338.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499
OP43083-BSD ^a	J186339.D	1	03/17/17	SC	03/17/17	OP43083	EJ2499

The QC reported here applies to the following samples:

Method: EPA 625

TD488-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
118-79-6	2,4,6-Tribromophenol	99%	98%	32-128%
4165-60-0	Nitrobenzene-d5	104%	104%	29-115%
321-60-8	2-Fluorobiphenyl	98%	95%	34-113%
1718-51-0	Terphenyl-d14	102%	103%	23-138%

(a) Insufficient sample for MS/MSD.

(b) Outside control limits biased high. Analyte not detected in associated samples.

* = Outside of Control Limits.

General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
BOD, 5 Day	GP41175/GN80260	2.0	0.0	mg/l	198	200	101.0	82-114%
Bromide	GP41177/GN80268	0.50	0.0	mg/l	10	9.96	99.6	90-110%
Chloride	GP41177/GN80268	0.50	0.0	mg/l	10	9.57	95.7	90-110%
Fluoride	GP41177/GN80268	0.50	0.0	mg/l	10	9.45	94.5	90-110%
Nitrogen, Ammonia	GP41180/GN80280	0.10	0.0	mg/l	2	1.96	98.0	90-110%
Nitrogen, Nitrate	GP41177/GN80268	0.50	0.0	mg/l	10	9.45	94.5	90-110%
Nitrogen, Nitrite	GP41177/GN80268	0.50	0.0	mg/l	10	9.17	91.7	90-110%
Phosphorus, Total	GP41359/GN80523	0.020	0.0	mg/l	0.4	0.41	102.5	91-108%
Sulfate	GP41177/GN80268	0.60	0.0	mg/l	10	9.78	97.8	90-110%
Sulfide	GN80295	0.20	0.0	mg/l	1600	1600	100.0	90-105%
Sulfite	GN80302	3.0	0.0	mg/l	50	50.5	101.0	97-102%

Associated Samples:

Batch GN80295: TD488-1
Batch GN80302: TD488-1
Batch GP41175: TD488-1
Batch GP41177: TD488-1
Batch GP41180: TD488-1
Batch GP41359: TD488-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN80295	mg/l	1600	1600	0.0	

Associated Samples:
Batch GN80295: TD488-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
BOD, 5 Day	GP41175/GN80260	TD431-2A	mg/l	2.7	2.9	7.1	0-15%
Bromide	GP41177/GN80268	TD454-1	mg/l	0.0	0.0	0.0	0-20%
Chloride	GP41177/GN80268	TD454-1	mg/l	37.0	38.3	3.5	0-20%
Fluoride	GP41177/GN80268	TD454-1	mg/l	0.89	0.67	28.2(a)	0-20%
Nitrogen, Ammonia	GP41180/GN80280	TD416-2A	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrate	GP41177/GN80268	TD454-1	mg/l	0.91	0.93	2.2	0-20%
Nitrogen, Nitrite	GP41177/GN80268	TD454-1	mg/l	0.0	0.0	0.0	0-20%
Phosphorus, Total	GP41359/GN80523	TD641-1	mg/l	0.19	0.19	0.0	0-20%
Sulfate	GP41177/GN80268	TD454-1	mg/l	54.6	55.2	1.1	0-20%
Sulfite	GN80302	TD488-1	mg/l	0.77 U	0.0	0.0	0-10%

Associated Samples:

Batch GN80302: TD488-1

Batch GP41175: TD488-1

Batch GP41177: TD488-1

Batch GP41180: TD488-1

Batch GP41359: TD488-1

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP41177/GN80268	TD454-1	mg/l	0.0	10	10	100.0	80-120%
Chloride	GP41177/GN80268	TD454-1	mg/l	37.0	10	48.5	115.0	80-120%
Fluoride	GP41177/GN80268	TD454-1	mg/l	0.89	10	10.6	97.1	80-120%
Nitrogen, Ammonia	GP41180/GN80280	TD416-2A	mg/l	0.0	2	2.0	100.0	90-110%
Nitrogen, Nitrate	GP41177/GN80268	TD454-1	mg/l	0.91	10	10.4	94.9	80-120%
Nitrogen, Nitrite	GP41177/GN80268	TD454-1	mg/l	0.0	10	9.3	93.0	80-130%
Phosphorus, Total	GP41359/GN80523	TD641-1	mg/l	0.19	0.8	0.97	97.5	83-110%
Sulfate	GP41177/GN80268	TD454-1	mg/l	54.6	10	63.0	84.0	80-120%
Sulfite	GN80302	TD488-1	mg/l	0.77 U	50	50.5	101.0	95-102%

Associated Samples:

Batch GN80302: TD488-1

Batch GP41177: TD488-1

Batch GP41180: TD488-1

Batch GP41359: TD488-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.4

7

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

FED-EX Tracking # 5682 4620 5087
SGS Accutest Quote #
Bottle Order Control #
SGS Accutest Job # **TD488**

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name: SGS Accutest				Project Name: Permit																DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address: 10165 Harwin Drive				Street																	
City State Zip: Houston TX 77036				City State																	
Project Contact E-mail: Tramessha.Brown@sgs.com				Project #																	
Phone #: 713-271-4700				Fax #																	
Sampler(s) Name(s)				Project Manager				Attention:												LAB USE ONLY	
Field ID / Point of Collection				MEOH/DI Vial #				Collection				Number of preserved Bottles				X					
1 PERMIT RENEWEL				3/14/17 10:00:00 AM				AQ 1				X				A39					
Turnaround Time (Business days)				Data Deliverable Information				Comments / Special Instructions													
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input checked="" type="checkbox"/> other Due 3/21/2017 Emergency & Rush T/A data available VIA Lablink				Approved By (SGS Accutest PM): / Date: _____ _____ _____ _____ _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> Other COMMB				INITIAL ASESSMENT <u>RP 3B</u> LABEL VERIFICATION <u>Am</u>					
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Relinquished by Sampler:				Received By: 1				Relinquished By: 2				Received By: 3									
Date Time: 3/14/17				Date Time: 3/14/17				Date Time: 3/14/17				Date Time: 3/14/17									
Relinquished by Sampler:				Received By: 3				Relinquished By: 4				Received By: 5									
Date Time: 3/14/17				Date Time: 3/14/17				Date Time: 3/14/17				Date Time: 3/14/17									
Relinquished by:				Received By: 5				Custody Seal: CLIENT				On Ice: <input checked="" type="checkbox"/> Cooler Temp. 2.1 1.7 3.2									

TD488: Chain of Custody
Page 1 of 4
SGS Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: TD488

Client: _____

Project: _____

Date / Time Received: 3/16/2017 11:10:00 AM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1); Cooler 2: (1.7); Cooler 3: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.5); Cooler 2: (3.1); Cooler 3: (4.6);

Cooler Security

Y or N

Y or N

- | | |
|--|---|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> | IR Gun |
| 2. Cooler temp verification: _____ | |
| 3. Cooler media: _____ | Ice (Bag) |
| 4. No. Coolers: _____ | 3 |

Quality Control Preservation

Y or N

N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Sample Integrity - Documentation

Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Condition

Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Condition of sample: _____ | Intact |

Sample Integrity - Instructions

Y or N N/A

- | | |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Comments

SM089-02
Rev. Date 12/1/16

TD488: Chain of Custody

Page 2 of 4

SGS Accutest Sample Receipt Summary

Job Number: TD488

Client: _____

Project: _____

Date / Time Received: 3/17/2017 10:50:00 AM

Delivery Method: _____

Airbill #'s: _____

Cooler Temps (Raw Measured) °C: Cooler 4: (2.1);

Cooler Temps (Corrected) °C: Cooler 4: (3.5);

Cooler Security

Y or N

Y or N

- | | |
|--|---|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> | IR Gun |
| 2. Cooler temp verification: _____ | |
| 3. Cooler media: _____ | Ice (Bag) |
| 4. No. Coolers: _____ | 1 |

Quality Control Preservation

Y or N

N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Sample Integrity - Documentation

Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Condition

Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Condition of sample: _____ | Intact |

Sample Integrity - Instructions

Y or N N/A

- | | |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Comments

SM089-02
Rev. Date 12/1/16

TD488: Chain of Custody

Page 3 of 4



ACCUTEST

CHAIN OF CUSTODY

Page 1 of 2

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.comFED-EX Tracking #
5442 4620 5190
SGS Accutest Quote #

Bottle Order Control #

SGS Accutest Job
TD488

Client / Reporting Information				Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Company Name: SGS Accutest				Project Name:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Street Address: 10165 Harwin Drive				Street:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
City: Houston State: TX Zip: 77035				City: State:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Project Contact: E-mail: elecia.brown@sgs.com				Project #:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Phone #: 713-271-4700				Client Purchase Order #:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sampler(s) Name(s):				Project Manager:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SGS Accutest Sample #				Field ID / Point of Collection				MEQNDI Vial #				Collection				Number of preserved bottles																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
												Date				Time				Sampled by				Matrix				# of bottles				F03				F04				F05				F06				F07				F08				F09				F10				F11				F12				F13				F14				F15				F16				F17				F18				F19				F20				F21				F22				F23				F24				F25				F26				F27				F28				F29				F30				F31				F32				F33				F34				F35				F36				F37				F38				F39				F40				F41				F42				F43				F44				F45				F46				F47				F48				F49				F50				F51				F52				F53				F54				F55				F56				F57				F58				F59				F60				F61				F62				F63				F64				F65				F66				F67				F68				F69				F70				F71				F72				F73				F74				F75				F76				F77				F78				F79				F80				F81				F82				F83				F84				F85				F86				F87				F88				F89				F90				F91				F92				F93				F94				F95				F96				F97				F98				F99				F100				F101				F102				F103				F104				F105				F106				F107				F108				F109				F110				F111				F112				F113				F114				F115				F116				F117				F118				F119				F120				F121				F122				F123				F124				F125				F126				F127				F128				F129				F130				F131				F132				F133				F134				F135				F136				F137				F138				F139				F140				F141				F142				F143				F144				F145				F146				F147				F148				F149				F150				F151				F152				F153				F154				F155				F156				F157				F158				F159				F160				F161				F162				F163				F164				F165				F166				F167				F168				F169				F170				F171				F172				F173				F174				F175				F176				F177				F178				F179				F180				F181				F182				F183				F184				F185				F186				F187				F188				F189				F190				F191				F192				F193				F194				F195				F196				F197				F198				F199				F200				F201				F202				F203				F204				F205				F206				F207				F208				F209				F210				F211				F212				F213				F214				F215				F216				F217				F218				F219				F220				F221				F222				F223				F224				F225				F226				F227				F228				F229				F230				F231				F232				F233				F234				F235				F236				F237				F238				F239				F240				F241				F242				F243				F244				F245				F246				F247				F248				F249				F250				F251				F252				F253				F254				F255				F256				F257				F258				F259				F260				F261				F262				F263				F264				F265				F266				F267				F268				F269				F270				F271				F272				F273				F274				F275				F276				F277				F278				F279				F280				F281				F282				F283				F284				F285				F286				F287				F288				F289				F290				F291				F292				F293				F294				F295				F296				F297				F298				F299				F300				F301				F302				F303				F304				F305				F306				F307				F308				F309				F310				F311				F312				F313				F314				F315				F316				F317				F318				F319				F320				F321				F322				F323				F324				F325				F326				F327				F328				F329				F330				F331				F332				F333				F334				F335				F336				F337				F338				F339				F340				F341				F342				F343				F344				F345				F346				F347				F348				F349				F350				F351				F352				F353				F354				F355				F356				F357				F358				F359				F360				F361				F362				F363				F364				F365				F366				F367				F368				F369				F370				F371				F372				F373				F374				F375				F376				F377				F378				F379				F380				F381				F382				F383				F384				F385				F386				F387				F388				F389				F390				F391				F392				F393				F394				F395				F396				F397				F398				F399				F400				F401				F402				F403				F404				F405				F406				F407				F408				F409				F410				F411				F412				F413				F414				F415				F416				F417				F418				F419				F420				F421				F422				F423				F424				F425				F426				F427				F428				F429				F430				F431				F432				F433				F434				F435				F436				F437				F438				F439				F440				F441				F442				F443				F444				F445				F446				F447				F448				F449				F450				F451				F452				F453				F454				F455				F456				F457				F458				F459				F460				F461				F462				F463				F464				F465				F466				F467				F468				F469				F470				F471				F472				F473				F474				F475				F476				F477				F478				F479				F480				F481				F482				F483				F484				F485				F486				F487				F488				F489				F490				F491				F492				F493				F494				F495				F496				F497				F498				F499				F500				F501				F502				F503				F504				F505				F506				F507				F508				F509				F510				F511				F512				F513				F514				F515				F516				F517				F518				F519				F520				F521				F522				F523				F524				F525				F526				F527				F528				F529				F530				F531				F532				F533				F534				F535				F536				F537				F538				F539				F540				F541				F542				F543				F544				F545				F546				F547				F548				F549				F550				F551				F552				F553				F554				F555				F556				F557				F558				F559				F560				F561				F562				F563				F564				F565				F566				F567				F568				F569				F570				F571				F572				F573				F574				F575				F576				F577				F578				F579				F580				F581				F582				F583				F584				F585				F586				F587				F588				F589				F590				F591				F592				F593				F594				F595				F596				F597				F598				F599				F600				F601				F602				F603				F604				F605				F606				F607				F608				F609				F610				F611				F612				F613				F614				F615				F616				F617				F618				F619				F620				F621				F622				F623				F624				F625				F626				F627				F628				F629				F630				F631				F632				F633				F634				F635				F636				F637				F638				F639				F640				F641				F642				F643				F644				F645				F646				F647				F648				F649				F650				F651				F652				F653				F654				F655				F656				F657				F658				F659				F660				F661				F662				F663				F664				F665				F666				F667				F668				F669				F670				F671				F672				F673				F674				F675				F676				F677				F678				F679				F680				F681				F682				F683				F684				F685				F686				F687				F688				F689				F690				F691				F692				F693				F694				F695				F696				F697				F698				F699				F700				F701				F702				F703				F704				F705				F706				F707				F708				F709				F710				F711				F712				F713				F714				F715				F716				F717				F718				F719				F720				F721				F722				F723				F724				F725				F726				F727				F728				F729				F730				F731				F732				F733				F734				F735				F736				F737				F738				F739				F740				F741				F742				F743				F744				F745				F746				F747				F748				F749				F750				F751				F752				F753				F754				F755				F756				F757				F758				F759				F760				F761				F762				F763				F764				F765				F766				F767				F768				F769				F770				F771				F772				F773				F774				F775				F776				F777				F778				F779				F780				F781				F782				F783				F784				F785				F786				F787				F788				F789				F790				F791				F792				F793				F794				F795				F796				F797				F798				F799				F800				F801				F802				F803				F804				F805				F806				F807				F808				F809				F810				F811				F812				F813				F814				F815				F816				F817				F818				F819				F820				F821				F822				F823				F824				F825				F826				F827				F828				F829				F830				F831				F832				F833				F834				F835				F836				F837				F838				F839				F840				F841				F842				F843				F844				F845				F846				F847				F848				F849				F850				F851				F852				F853				F854				F855				F856				F857				F858				F859				F860				F861				F862				F863				F864				F865				F866				F867				F868				F869				F870				F871				F872				F873				F874				F875				F876				F877				F878				F879				F880				F881				F882				F883				F884				F885				F886				F887				F888				F889				F890				F891				F892				F893				F894				F895				F896				F897				F898				F899				F900				F901				F902				F903				F904				F905				F906				F907				F908				F909				F910				F911				F912				F913				F914				F915				F916				F917				F918				F919				F920				F921				F922				F923				F924				F925				F926				F927				F928				F929				F930				F931				F932				F933				F934				F935				F936				F937				F938				F939				F940				F941				F942				F943				F944				F945				F946				F947				F948				F949				F950				F951				F952				F953				F954				F955				F956				F957				F958				F959				F960				F961				F962				F963				F964				F965				F966				F967				F968				F969			

GC Semi-volatiles

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD488
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1247-MB11	2G144051.D	1	03/21/17	HB	03/20/17	OP1247	G2G3968

The QC reported here applies to the following samples: Method: EPA 608

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.050	0.034	ug/l	
11104-28-2	Aroclor 1221	ND	0.050	0.029	ug/l	
11141-16-5	Aroclor 1232	ND	0.050	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.050	0.027	ug/l	
12672-29-6	Aroclor 1248	ND	0.050	0.025	ug/l	
11097-69-1	Aroclor 1254	ND	0.050	0.034	ug/l	
11096-82-5	Aroclor 1260	ND	0.050	0.027	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	71% 10-156%
877-09-8	Tetrachloro-m-xylene	80% 10-156%
2051-24-3	Decachlorobiphenyl	25% 10-143%
2051-24-3	Decachlorobiphenyl	33% 10-143%

Method Blank Summary

Job Number: TD488
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1247-MB1	2G144052.D	1	03/21/17	HB	03/20/17	OP1247	G2G3968

The QC reported here applies to the following samples: Method: EPA 608

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.17	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.15	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.14	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.13	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.17	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.14	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	77% 10-156%
877-09-8	Tetrachloro-m-xylene	86% 10-156%
2051-24-3	Decachlorobiphenyl	26% 10-143%
2051-24-3	Decachlorobiphenyl	34% 10-143%

Method Blank Summary

Page 1 of 1

Job Number: TD488

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1248-MB1	6G45115.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288

The QC reported here applies to the following samples:

Method: EPA 608

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0030	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0030	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0028	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0023	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0014	ug/l	
12789-03-6	Chlordane	ND	0.10	0.057	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0018	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0019	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0031	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0026	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0021	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0019	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0033	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0028	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.092	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	66% 10-156%
877-09-8	Tetrachloro-m-xylene	64% 10-156%
2051-24-3	Decachlorobiphenyl	44% 10-143%
2051-24-3	Decachlorobiphenyl	51% 10-143%

9.1.3
9

Method Blank Summary

Page 1 of 1

Job Number: TD488

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1248-MB11	6G45116.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288

The QC reported here applies to the following samples:

Method: EPA 608

TD488-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0020	0.00060	ug/l	
319-84-6	alpha-BHC	ND	0.0020	0.00060	ug/l	
319-85-7	beta-BHC	ND	0.0020	0.00057	ug/l	
319-86-8	delta-BHC	ND	0.0020	0.00046	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0020	0.00028	ug/l	
12789-03-6	Chlordane	ND	0.020	0.011	ug/l	
60-57-1	Dieldrin	ND	0.0020	0.00036	ug/l	
72-54-8	4,4'-DDD	ND	0.0020	0.00038	ug/l	
72-55-9	4,4'-DDE	ND	0.0020	0.00062	ug/l	
50-29-3	4,4'-DDT	ND	0.0020	0.00050	ug/l	
72-20-8	Endrin	ND	0.0020	0.00050	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.0020	0.00053	ug/l	
7421-93-4	Endrin aldehyde	ND	0.0020	0.00051	ug/l	
959-98-8	Endosulfan-I	ND	0.0020	0.00050	ug/l	
33213-65-9	Endosulfan-II	ND	0.0020	0.00043	ug/l	
76-44-8	Heptachlor	ND	0.0020	0.00038	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.0020	0.00065	ug/l	
72-43-5	Methoxychlor	ND	0.0020	0.00057	ug/l	
8001-35-2	Toxaphene	ND	0.025	0.018	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	69% 10-156%
877-09-8	Tetrachloro-m-xylene	68% 10-156%
2051-24-3	Decachlorobiphenyl	26% 10-143%
2051-24-3	Decachlorobiphenyl	28% 10-143%

9.1.4
9

Blank Spike Summary

Page 1 of 1

Job Number: TD488

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1248-BS1	6G45117.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288

The QC reported here applies to the following samples:

Method: EPA 608

TD488-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.098	39	18-142
319-84-6	alpha-BHC	0.25	0.18	72	40-149
319-85-7	beta-BHC	0.25	0.19	76	41-141
319-86-8	delta-BHC	0.25	0.19	76	34-160
58-89-9	gamma-BHC (Lindane)	0.25	0.18	72	40-148
60-57-1	Dieldrin	0.25	0.18	72	41-152
72-54-8	4,4' -DDD	0.25	0.21	84	38-153
72-55-9	4,4' -DDE	0.25	0.17	68	35-146
50-29-3	4,4' -DDT	0.25	0.19	76	36-158
72-20-8	Endrin	0.25	0.19	76	45-161
1031-07-8	Endosulfan sulfate	0.25	0.18	72	41-154
7421-93-4	Endrin aldehyde	0.25	0.19	76	41-153
959-98-8	Endosulfan-I	0.25	0.17	68	38-146
33213-65-9	Endosulfan-II	0.25	0.18	72	40-149
76-44-8	Heptachlor	0.25	0.11	44	27-141
1024-57-3	Heptachlor epoxide	0.25	0.16	64	39-148
72-43-5	Methoxychlor	0.25	0.18	72	38-153

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	53%	10-156%
877-09-8	Tetrachloro-m-xylene	52%	10-156%
2051-24-3	Decachlorobiphenyl	38%	10-143%
2051-24-3	Decachlorobiphenyl	43%	10-143%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: TD488

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1247-BS1	2G144053.D	1	03/21/17	HB	03/20/17	OP1247	G2G3968
OP1247-BSD	2G144054.D	1	03/21/17	HB	03/20/17	OP1247	G2G3968

The QC reported here applies to the following samples:

Method: EPA 608

TD488-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	2.1	105 ^a	2.0	100 ^a	5 ^a	42-160/37
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/30
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/30
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/30
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/30
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/30
11096-82-5	Aroclor 1260	2	1.8	90 ^a	1.8	90 ^a	0 ^a	41-158/40

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	85%	84%	10-156%
877-09-8	Tetrachloro-m-xylene	94%	90%	10-156%
2051-24-3	Decachlorobiphenyl	31%	36%	10-143%
2051-24-3	Decachlorobiphenyl	40%	46%	10-143%

(a) Reported from 2nd signal. %D of check calibration on 1st signal exceed method criteria (15%) so using for confirmation only.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: TD488

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1248-MS	6G45120.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288
OP1248-MSD	6G45121.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288
JC38915-1	6G45119.D	1	03/21/17	KD	03/20/17	OP1248	G6G1288

The QC reported here applies to the following samples:

Method: EPA 608

TD488-1

CAS No.	Compound	JC38915-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.505	0.14	28	0.505	0.15	30	7	22-159/42
319-84-6	alpha-BHC	ND		0.505	0.57	113	0.505	0.62	123	8	34-168/37
319-85-7	beta-BHC	ND		0.505	0.52	103	0.505	0.48	95	8	31-165/42
319-86-8	delta-BHC	ND		0.505	0.64	127	0.505	0.62	123	3	42-170/41
58-89-9	gamma-BHC (Lindane)	ND		0.505	0.46	91	0.505	0.51	101	10	34-169/43
12789-03-6	Chlordane	ND			ND			ND		nc	50-150/30
60-57-1	Dieldrin	ND		0.505	0.49	97	0.505	0.51	101	4	32-170/41
72-54-8	4,4'-DDD	ND		0.505	0.57	113	0.505	0.56	111	2	37-164/37
72-55-9	4,4'-DDE	ND		0.505	0.41	81	0.505	0.41	81	0	35-159/40
50-29-3	4,4'-DDT	ND		0.505	0.50	99	0.505	0.50	99	0	24-175/35
72-20-8	Endrin	ND		0.505	0.53	105	0.505	0.54	107	2	42-177/38
1031-07-8	Endosulfan sulfate	ND		0.505	0.54	107	0.505	0.54	107	0	35-167/43
7421-93-4	Endrin aldehyde	ND		0.505	0.57	113	0.505	0.57	113	0	26-169/48
959-98-8	Endosulfan-I	ND		0.505	0.41	81	0.505	0.44	87	7	27-167/40
33213-65-9	Endosulfan-II	ND		0.505	0.52	103	0.505	0.52	103	0	30-165/39
76-44-8	Heptachlor	ND		0.505	0.22	44	0.505	0.21	42	5	29-158/39
1024-57-3	Heptachlor epoxide	ND		0.505	0.41	81	0.505	0.45	89	9	38-160/40
72-43-5	Methoxychlor	ND		0.505	0.48	95	0.505	0.47	93	2	33-163/43
8001-35-2	Toxaphene	ND			ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC38915-1	Limits
877-09-8	Tetrachloro-m-xylene	75%	72%	105%	10-156%
877-09-8	Tetrachloro-m-xylene	66%	65%	92%	10-156%
2051-24-3	Decachlorobiphenyl	65%	62%	58%	10-143%
2051-24-3	Decachlorobiphenyl	69%	71%	64%	10-143%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99302
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/17/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.23	1.3		
Antimony	2.0	.22	.26		
Arsenic	1.0	.017	.034	0.0085	<1.0
Barium	1.0	.0085	.028	0.012	<1.0
Beryllium	0.50	.0022	.013		
Boron	50	2.3			
Cadmium	0.50	.0032	.12	0.0030	<0.50
Calcium	250	1.4	3.7		
Chromium	4.0	.012	.1	0.027	<4.0
Cobalt	0.50	.0018	.018		
Copper	4.0	.035	.14		
Iron	50	.19	2		
Lead	0.50	.0079	.011	-0.012	<0.50
Magnesium	250	.21	3.6		
Manganese	1.0	.0078	.095		
Molybdenum	1.0	.023	.23		
Nickel	4.0	.018	.11		
Potassium	250	.77	8.8		
Selenium	1.0	.012	.12	-0.021	<1.0
Silver	2.0	.0058	.041	0.0028	<2.0
Sodium	250	.89	2.5		
Strontium	5.0	.006	.015		
Thallium	0.50	.002	.013		
Tin	5.0	.044	.38		
Titanium	1.0	.031	.56		
Vanadium	4.0	.03	.2		
Zinc	10	.067	1.2		

Associated samples MP99302: TD488-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99302
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/17/17

Metal	JC38604-10 Original MS	Spikelot MPX200.8 % Rec	QC Limits
Aluminum	anr		
Antimony			
Arsenic	0.089 101	100	100.9 70-130
Barium	1.9 102	100	100.1 70-130
Beryllium			
Boron			
Cadmium	0.011 101	100	101.0 70-130
Calcium			
Chromium	0.28 102	100	101.7 70-130
Cobalt			
Copper			
Iron	anr		
Lead	0.18 100	100	99.8 70-130
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium	0.063 196	200	98.0 70-130
Silver	0.025 77.3	76.5	101.0 70-130
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc	anr		

Associated samples MP99302: TD488-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99302
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/17/17

Metal	JC38604-10 Original	MSD	Spikelot MPX200.8	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	0.089	102	100	101.9	1.0	10
Barium	1.9	102	100	100.1	0.0	20
Beryllium						
Boron						
Cadmium	0.011	102	100	102.0	1.0	10
Calcium						
Chromium	0.28	104	100	103.7	1.9	10
Cobalt						
Copper						
Iron	anr					
Lead	0.18	102	100	101.8	2.0	10
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.063	198	200	99.0	1.0	10
Silver	0.025	76.9	76.5	100.5	0.5	10
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP99302: TD488-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99302
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/17/17

Metal	BSP Result	Spikelot MPX200.8	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic	101	100	101.0	85-115
Barium	99.1	100	99.1	85-115
Beryllium				
Boron				
Cadmium	102	100	102.0	85-115
Calcium				
Chromium	101	100	101.0	85-115
Cobalt				
Copper				
Iron	anr			
Lead	99.8	100	99.8	85-115
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	199	200	99.5	85-115
Silver	76.2	76.5	99.6	85-115
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP99302: TD488-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99331
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 03/20/17

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.023	.055	0.065	<0.20

Associated samples MP99331: TD488-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD488
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99331
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/20/17

Metal	JC38818-1		SpikeLot		QC
	Original	MS	HGPW3	% Rec	Limits
Mercury	0.0	2.1	2	105.0	70-130

Associated samples MP99331: TD488-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD488
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99331
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/20/17

Metal	JC38818-1 Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.1	2	105.0	0.0 19

Associated samples MP99331: TD488-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD488
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99331
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/20/17

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.2	2	110.0	85-115

Associated samples MP99331: TD488-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested



Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Lafayette)

Includes the following where applicable:

- Chain of Custody



10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sps.com

FED-EX Tracking #	Bottle Order Control #					
SGS Account Quote #	SGS Account Job TD488					
Requested Analysis (see TEST CODE sheet)						Matrix Codes
MEAS						DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquids AIR - Air SOL - Other Solids WP - Wipe FB-Field Blank EQ-Equipment Blank RB - Rinse Blank TB-Trip Blank
	X					LAB USE ONLY
Comments / Special Instructions						
<div style="text-align: center;">(P4)</div>						
Category A						
Category B						
at _____						
MMMB						
Rail Raw data						
on, including courier delivery.						
Date Time:	3-15-17	Received By:	[Signature]			
Date Time:		Received By:	4			
On Ice	3:4 PM	Cooler Temp.	41°F			

11

TD488: Chain of Custody
Page 1 of 3
SGS Accutest Lafayette

Date / Time: 3/14/2017 5:36:14 PM
CSR: TRAMESHB
Job #: TD488
Client Project: Permit
Deliverable: COMMB
TAT: Due 3/21/2017

Sub Lab: Accutest Gulf Coast Louisiana
Address: 500 Ambassador Caffery Prkway
City: Scott
State: LA Zip: 70583
Contact: Sample Receiving
Phone: 800-304-5227

SGS Accutest Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
TD488-1	PERMIT RENEWEL	MBAS	1L 3N 4V SUB VR		3/14/2017	10:00:00 AM	

Comments:

Sample Management Receipt: _____

Date: _____

1 = 1 liter cap
14

TD488: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Job Number: TD488

Client: SGS (TX)

Project: PERMIT RENEWAL

Date / Time Received: 3/15/2017 10:15:00 AM

Delivery Method: Accutest Courier

Airbill #s: _____

Cooler Temps (Initial/Adjusted): #1: (3.4/3.4):

Cooler Security

	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Thermometer ID:	_____ ; _____		
3. Cooler media:	<u>Ice (direct contact)</u>		
4. No. Coolers:	<u>1</u>		

Quality Control Preservation

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>		

Sample Integrity - Instructions

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

TD488: Chain of Custody

Page 3 of 3

General Chemistry

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Surfactants, MBAS as LAS	GN10183	0.10	0.0	mg/l	.75	0.72	96.0	80-120%

Associated Samples:
Batch GN10183: TD488-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Surfactants, MBAS as LAS	GN10183	mg/l	.75	0.72	0.7	

Associated Samples:
Batch GN10183: TD488-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD488
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Surfactants, MBAS as LAS	GN10183	TD488-1	mg/l	0.28	0.27	1.8	0-20%

Associated Samples:
Batch GN10183: TD488-1
(*) Outside of QC limits

Technical Report for

Gulf Chemical & Metallurgical Corp.

Permit

SGS Accutest Job Number: TD801

Sampling Date: 03/21/17


Report to:

Gulf Chemical & Metallurgical Corp.
P.O. Box 2290
Freeport, TX 77542
bobby.provence@eramet-gulf.com; robert.marsh@eramet-gulf.com
ATTN: Robert Marsh

Total number of pages in report: **64**



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.


Richard Rodriguez
Laboratory Director

Client Service contact: Electa Brown 713-271-4700

Certifications: TX (T104704220-17-26) AR (14-016-0) AZ (AZ0769) FL (E87628)
KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-172) VA (7654)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: TD801-1: PERMIT RENEWEL	6
Section 4: Misc. Forms	15
4.1: Chain of Custody	16
Section 5: GC/MS Volatiles - QC Data Summaries	20
5.1: Method Blank Summary	21
5.2: Blank Spike Summary	23
5.3: Matrix Spike/Matrix Spike Duplicate Summary	25
Section 6: GC/MS Semi-volatiles - QC Data Summaries	27
6.1: Method Blank Summary	28
6.2: Blank Spike/Blank Spike Duplicate Summary	31
Section 7: General Chemistry - QC Data Summaries	34
7.1: Method Blank and Spike Results Summary	35
7.2: Blank Spike Duplicate Results Summary	36
7.3: Duplicate Results Summary	37
7.4: Matrix Spike Results Summary	38
Section 8: Misc. Forms (SGS Accutest New Jersey)	39
8.1: Chain of Custody	40
Section 9: GC Semi-volatiles - QC Data (SGS Accutest New Jersey)	42
9.1: Method Blank Summary	43
9.2: Blank Spike Summary	45
9.3: Matrix Spike/Matrix Spike Duplicate Summary	47
Section 10: Metals Analysis - QC Data (SGS Accutest New Jersey)	48
10.1: Prep QC MP99436: As,Ba,Cd,Cr,Pb,Se,Ag	49
10.2: Prep QC MP99469: Hg	53
Section 11: Misc. Forms (SGS Accutest Lafayette)	57
11.1: Chain of Custody	58
Section 12: General Chemistry - QC Data (SGS Accutest Lafayette)	61
12.1: Method Blank and Spike Results Summary	62
12.2: Matrix Spike Results Summary	63
12.3: Matrix Spike Duplicate Results Summary	64



Sample Summary

Gulf Chemical & Metallurgical Corp.
Permit

Job No: TD801

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
TD801-1	03/21/17	10:00	03/21/17	AQ	Water	PERMIT RENEWEL

Summary of Hits

Job Number: TD801
Account: Gulf Chemical & Metallurgical Corp.
Project: Permit
Collected: 03/21/17

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

TD801-1 PERMIT RENEWEL

Acetone		0.193	0.050	0.010	mg/l	EPA 624
Chlorobenzene		0.00035 J	0.0010	0.00030	mg/l	EPA 624
Chloroform		0.00084 J	0.0010	0.00030	mg/l	EPA 624
2-Hexanone		0.0093 J	0.010	0.0012	mg/l	EPA 624
4-Methyl-2-pentanone		0.0098 J	0.010	0.0023	mg/l	EPA 624
Methyl ethyl ketone		0.0560	0.010	0.0026	mg/l	EPA 624
Arsenic ^a		0.312	0.020	0.00068	mg/l	EPA 200.8
Barium ^a		0.0131 B	0.020	0.00056	mg/l	EPA 200.8
Cadmium ^a		0.0032 B	0.010	0.0024	mg/l	EPA 200.8
Lead ^a		0.0012 B	0.010	0.00021	mg/l	EPA 200.8
Selenium ^a		0.544	0.020	0.0023	mg/l	EPA 200.8
BOD, 5 Day		8.9	6.0	3.0	mg/l	SM 5210B-2000
Nitrogen, Ammonia		83.4	5.0	1.0	mg/l	EPA 350.1
Phosphorus, Total		0.55	0.040	0.020	mg/l	SM 4500PE-2011
Surfactants, MBAS as LAS ^b		0.21	0.10	0.080	mg/l	SM5540 C-11

(a) Elevated sample detection limit due to difficult sample matrix. Analysis performed at SGS Accutest, Dayton, NJ.

(b) Analysis performed at SGS Accutest, Lafayette, LA.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/21/17
Lab Sample ID:	TD801-1	Date Received:	03/21/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z55300.D	1	03/29/17	EM	n/a	n/a	VZ5269
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.193	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00030	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	0.00035	0.0010	0.00030	mg/l	J
75-00-3	Chloroethane	ND	0.0010	0.00033	mg/l	
67-66-3	Chloroform	0.00084	0.0010	0.00030	mg/l	J
75-15-0	Carbon disulfide	ND	0.0050	0.00075	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00054	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00030	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00030	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00030	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00030	mg/l	
591-78-6	2-Hexanone	0.0093	0.010	0.0012	mg/l	J
108-10-1	4-Methyl-2-pentanone	0.0098	0.010	0.0023	mg/l	J
74-83-9	Methyl bromide	ND	0.0010	0.00049	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0013	mg/l	
78-93-3	Methyl ethyl ketone	0.0560	0.010	0.0026	mg/l	
100-42-5	Styrene	ND	0.0010	0.00030	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00030	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00030	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00030	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00030	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD801-1
Matrix: AQ - Water
Method: EPA 624
Project: Permit

Date Sampled: 03/21/17
Date Received: 03/21/17
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	0.0010	0.00030	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00065	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		72-122%
17060-07-0	1,2-Dichloroethane-D4	108%		68-124%
2037-26-5	Toluene-D8	101%		80-119%
460-00-4	4-Bromofluorobenzene	101%		72-126%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/21/17
Lab Sample ID:	TD801-1	Date Received:	03/21/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J186422.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.021	0.0018	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0015	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0018	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0021	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0011	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.0013	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0040	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.0015	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0019	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.013	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.0034	mg/l	
108-95-2	Phenol	ND	0.0053	0.0013	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0016	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0018	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0020	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0019	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0021	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.0023	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0021	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0021	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0020	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0019	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0017	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0020	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0018	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0020	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0018	mg/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0019	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0016	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD801-1
Matrix: AQ - Water
Method: EPA 625 EPA 625
Project: Permit

Date Sampled: 03/21/17
Date Received: 03/21/17
Percent Solids: n/a

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0017	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0019	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0019	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0022	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0019	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0021	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0022	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0019	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0021	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0027	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0019	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0021	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0053	0.0020	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0022	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0019	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0021	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0020	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0017	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0018	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0025	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0019	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0017	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0020	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0017	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0026	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0018	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0053	0.0020	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0019	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0020	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0019	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0019	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		10-66%
4165-62-2	Phenol-d5	47%		10-63%
118-79-6	2,4,6-Tribromophenol	130% ^a		32-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/21/17
Lab Sample ID:	TD801-1	Date Received:	03/21/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		29-115%
321-60-8	2-Fluorobiphenyl	85%		34-113%
1718-51-0	Terphenyl-d14	116%		23-138%

(a) Outside control limits biased high. There are no detects associated with this surrogate.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/21/17
Lab Sample ID:	TD801-1	Date Received:	03/21/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 608 EPA 608		
Project:	Permit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6G45330.D	1	03/29/17	ANJ	03/26/17	N:OP1400	N:G6G1295
Run #2 ^a	2G144362.D	1	03/28/17	ANJ	03/26/17	N:OP1399	N:G2G3973
Run #3 ^b	6G45351.D	1	03/29/17	ANJ	03/26/17	N:OP1400	N:G6G1296

	Initial Volume	Final Volume
Run #1	990 ml	5.0 ml
Run #2	990 ml	5.0 ml
Run #3	990 ml	5.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND		0.0000100.000003	mg/l	
319-84-6	alpha-BHC	ND		0.0000100.000003	mg/l	
319-85-7	beta-BHC	ND		0.0000100.000002	mg/l	
319-86-8	delta-BHC	ND		0.0000100.000002	mg/l	
58-89-9	gamma-BHC (Lindane)	ND		0.0000100.000001	mg/l	
12789-03-6	Chlordane	ND		0.00010 0.000057	mg/l	
60-57-1	Dieldrin	ND		0.0000100.000001	mg/l	
72-54-8	4,4'-DDD	ND		0.0000100.000001	mg/l	
72-55-9	4,4'-DDE	ND		0.0000100.000003	mg/l	
50-29-3	4,4'-DDT	ND		0.0000100.000002	mg/l	
72-20-8	Endrin	ND		0.0000100.000002	mg/l	
1031-07-8	Endosulfan sulfate	ND		0.0000100.000002	mg/l	
7421-93-4	Endrin aldehyde	ND		0.0000100.000002	mg/l	
959-98-8	Endosulfan-I	ND		0.0000100.000002	mg/l	
33213-65-9	Endosulfan-II	ND		0.0000100.000002	mg/l	
76-44-8	Heptachlor	ND		0.0000100.000001	mg/l	
1024-57-3	Heptachlor epoxide	ND		0.0000100.000003	mg/l	
72-43-5	Methoxychlor	ND		0.0000100.000002	mg/l	
8001-35-2	Toxaphene	ND		0.00013 0.000093	mg/l	
12674-11-2	Aroclor 1016	ND ^c		0.00025 0.00017	mg/l	
11104-28-2	Aroclor 1221	ND ^c		0.00025 0.00015	mg/l	
11141-16-5	Aroclor 1232	ND ^c		0.00025 0.00010	mg/l	
53469-21-9	Aroclor 1242	ND ^c		0.00025 0.00014	mg/l	
12672-29-6	Aroclor 1248	ND ^c		0.00025 0.00013	mg/l	
11097-69-1	Aroclor 1254	ND ^c		0.00025 0.00017	mg/l	
11096-82-5	Aroclor 1260	ND ^c		0.00025 0.00014	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
877-09-8	Tetrachloro-m-xylene	129%	101%	126%	10-156%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD801-1
Matrix: AQ - Water
Method: EPA 608 EPA 608
Project: Permit

Date Sampled: 03/21/17
Date Received: 03/21/17
Percent Solids: n/a

PCB List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
877-09-8	Tetrachloro-m-xylene	106%	97%	104%	10-156%
2051-24-3	Decachlorobiphenyl	135%	63%	107%	10-143%
2051-24-3	Decachlorobiphenyl	109%	68%	86%	10-143%

(a) Analysis performed at SGS Accutest, Dayton, NJ.

(b) Confirmation run. Analysis performed at SGS Accutest, Dayton, NJ.

(c) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL

Lab Sample ID: TD801-1

Matrix: AQ - Water

Project: Permit

Date Sampled: 03/21/17

Date Received: 03/21/17

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Arsenic ^a	0.312	0.020	0.00068	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Barium ^a	0.0131 B	0.020	0.00056	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Cadmium ^a	0.0032 B	0.010	0.0024	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Chromium ^a	0.0021 U	0.080	0.0021	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Lead ^a	0.0012 B	0.010	0.00021	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Mercury ^b	0.000055 U	0.00020	0.000055	mg/l	1	03/25/17	03/25/17	ANJ	EPA 245.1 ²	EPA 245.1 ⁴
Selenium ^a	0.544	0.020	0.0023	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³
Silver ^a	0.00083 U	0.040	0.00083	mg/l	20	03/23/17	03/24/17	ANJ	EPA 200.8 ¹	EPA 200.8 ³

(1) Instrument QC Batch: N:MA41634

(2) Instrument QC Batch: N:MA41639

(3) Prep QC Batch: N:MP99436

(4) Prep QC Batch: N:MP99469

(a) Elevated sample detection limit due to difficult sample matrix. Analysis performed at SGS Accutest, Dayton, NJ.

(b) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result < MDL

B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: PERMIT RENEWEL**Lab Sample ID:** TD801-1**Matrix:** AQ - Water**Project:** Permit**Date Sampled:** 03/21/17**Date Received:** 03/21/17**Percent Solids:** n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
BOD, 5 Day	8.9	6.0	3.0	mg/l	1	03/21/17 19:30 OZ	SM	5210B-2000
Nitrogen, Ammonia	83.4	5.0	1.0	mg/l	50	03/22/17	TH	EPA 350.1
Nitrogen, Nitrate ^a	14 U	25	14	mg/l	50	03/22/17 14:33 SM	EPA	300
Nitrogen, Nitrite ^a	14 U	25	14	mg/l	50	03/22/17 14:33 SM	EPA	300
Phosphorus, Total	0.55	0.040	0.020	mg/l	2	03/24/17	BG	SM 4500PE-2011
Sulfide	0.010 U	0.20	0.010	mg/l	1	03/27/17	TH	SM 4500S+ F-2000
Sulfite	0.77 U	3.0	0.77	mg/l	1	03/21/17 16:40 CV	SM	4500 SO32 B-2011
Surfactants, MBAS as LAS ^b	0.21	0.10	0.080	mg/l	1	03/23/17 09:45 ALAS	SM5540	C-11

(a) Elevated reporting limit due to matrix interference.

(b) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



PAGE OF

[illegible]

4.1

TD801: Chain of Custody

Page 1 of 4

COOLER TEMP FORM

FD 301

Delivered by (circle one):

FedEx/UPS

ALGC Driver

Client

Date:

5.21.17

7

Client: _____

Gb/f chemicals

Left: upper

Cooler Number:

1

Thermometer ID: _____

✓ TL CF, °C 0

CF, °C 0

Corrected Temp. °C 1.4

SAMPLES CONTAINED IN COOLER

[illegible]

Form: SM027-06 Rev 10/24/2016

SGS Accutest Sample Receipt Summary

Page 1 of 2

Job Number: TD801 Client: GULF CHEMICAL & METALLURGICAL Project: PERMIT
 Date / Time Received: 3/21/2017 2:50:00 PM Delivery Method: Airbill #s:
 No. Coolers: 1 Therm ID: IR9; Temp Adjustment Factor: 0;
 Cooler Temps (Initial/Adjusted): #1: (1.4/1.4);

Cooler Security		<u>Y or N</u>		<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Temperature		<u>Y or N</u>			
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
2. Cooler temp verification:					
3. Cooler media:	Ice (Bag)				
Quality Control Preservation	<u>Y or N</u>	<u>N/A</u>	<u>WTB</u>	<u>STB</u>	
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4. VOCs headspace free:	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Sample Integrity - Documentation	<u>Y or N</u>		
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sample Integrity - Condition	<u>Y or N</u>		
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:	Intact		
Sample Integrity - Instructions	<u>Y or N</u>	<u>N/A</u>	
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

TD801: Chain of Custody
 Page 3 of 4

Sample Receipt Log

Page 2 of 2

Job #: TD801

Date / Time Received: 3/21/2017 2:50:00 PM 2:50:0

Initials: EC

Client: GULF CHEMICAL & METALLURGICAL

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD801-1	1000ml	1	SUB	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	1000ml	2	3P	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	500ml	3	3P	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	500ml	4	1M	H2SO4	pH < 2	IR9	1.4	0	1.4
1	TD801-1	250ml	5	1M	NaOH+ZnAc	pH > 12	IR9	1.4	0	1.4
1	TD801-1	LAG	6	4AA	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	LAG	7	4AA	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	LAG	8	4AA	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	LAG	9	4AA	N/P	Note #2 - Preservative check not applicable.	IR9	1.4	0	1.4
1	TD801-1	500ml	10	SUB	HNO3	pH < 2	IR9	1.4	0	1.4
1	TD801-1	40ml	11	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	1.4	0	1.4
1	TD801-1	40ml	12	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	1.4	0	1.4
1	TD801-1	40ml	13	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR9	1.4	0	1.4

TD801: Chain of Custody

Page 4 of 4

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: TD801

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ5269-MB	Z55290.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples:

Method: EPA 624

TD801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.30	ug/l	
75-25-2	Bromoform	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.33	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.75	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	1.2	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.3	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.49	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
100-42-5	Styrene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.30	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.65	ug/l	

Method Blank Summary

Job Number: TD801
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ5269-MB	Z55290.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples: Method: EPA 624

TD801-1

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 72-122%
17060-07-0	1,2-Dichloroethane-D4	104% 68-124%
2037-26-5	Toluene-D8	101% 80-119%
460-00-4	4-Bromofluorobenzene	99% 72-126%

Blank Spike Summary

Page 1 of 2

Job Number: TD801**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ5269-BS	Z55288.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples:**Method:** EPA 624

TD801-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	134	107	46-129
71-43-2	Benzene	25	24.9	100	68-119
75-27-4	Bromodichloromethane	25	25.2	101	72-118
75-25-2	Bromoform	25	24.3	97	54-123
108-90-7	Chlorobenzene	25	25.4	102	74-120
75-00-3	Chloroethane	25	25.2	101	61-132
67-66-3	Chloroform	25	24.9	100	73-122
75-15-0	Carbon disulfide	25	19.9	80	55-140
56-23-5	Carbon tetrachloride	25	26.0	104	68-133
75-34-3	1,1-Dichloroethane	25	24.5	98	72-121
75-35-4	1,1-Dichloroethylene	25	28.2	113	67-140
107-06-2	1,2-Dichloroethane	25	25.9	104	68-121
78-87-5	1,2-Dichloropropane	25	24.3	97	72-116
124-48-1	Dibromochloromethane	25	25.5	102	68-119
156-59-2	cis-1,2-Dichloroethylene	25	23.9	96	72-117
10061-01-5	cis-1,3-Dichloropropene	25	25.1	100	71-118
156-60-5	trans-1,2-Dichloroethylene	25	26.3	105	68-124
10061-02-6	trans-1,3-Dichloropropene	25	27.0	108	72-127
100-41-4	Ethylbenzene	25	26.1	104	71-117
591-78-6	2-Hexanone	125	126	101	49-124
108-10-1	4-Methyl-2-pentanone	125	122	98	54-122
74-83-9	Methyl bromide	25	24.9	100	53-138
74-87-3	Methyl chloride	25	31.0	124	50-145
75-09-2	Methylene chloride	25	25.2	101	60-125
78-93-3	Methyl ethyl ketone	125	134	107	51-129
100-42-5	Styrene	25	27.0	108	74-119
71-55-6	1,1,1-Trichloroethane	25	24.9	100	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	23.6	94	62-121
79-00-5	1,1,2-Trichloroethane	25	25.0	100	70-119
127-18-4	Tetrachloroethylene	25	26.3	105	72-132
108-88-3	Toluene	25	25.4	102	73-119
79-01-6	Trichloroethylene	25	26.2	105	73-121
75-01-4	Vinyl chloride	25	25.6	102	54-126
1330-20-7	Xylene (total)	75	79.2	106	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD801
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ5269-BS	Z55288.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples: Method: EPA 624

TD801-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	72-122%
17060-07-0	1,2-Dichloroethane-D4	102%	68-124%
2037-26-5	Toluene-D8	100%	80-119%
460-00-4	4-Bromofluorobenzene	97%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: TD801

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1032-1MS	Z55292.D	1	03/28/17	EM	n/a	n/a	VZ5269
TD1032-1MSD	Z55293.D	1	03/28/17	EM	n/a	n/a	VZ5269
TD1032-1	Z55291.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples:

Method: EPA 624

TD801-1

CAS No.	Compound	TD1032-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	16.2	J	125	166	120	125	150	107	10	46-129/25
71-43-2	Benzene	ND		25	25.2	101	25	24.7	99	2	68-119/12
75-27-4	Bromodichloromethane	6.3		25	32.6	105	25	31.8	102	2	72-118/16
75-25-2	Bromoform	ND		25	23.4	94	25	23.2	93	1	54-123/17
108-90-7	Chlorobenzene	ND		25	25.4	102	25	25.0	100	2	74-120/12
75-00-3	Chloroethane	ND		25	25.9	104	25	28.6	114	10	61-132/16
67-66-3	Chloroform	20.4		25	44.5	96	25	44.3	96	0	73-122/13
75-15-0	Carbon disulfide	ND		25	19.2	77	25	19.3	77	1	55-140/24
56-23-5	Carbon tetrachloride	ND		25	25.6	102	25	26.3	105	3	68-133/20
75-34-3	1,1-Dichloroethane	ND		25	25.0	100	25	24.0	96	4	72-121/14
75-35-4	1,1-Dichloroethylene	ND		25	27.5	110	25	27.6	110	0	67-140/18
107-06-2	1,2-Dichloroethane	ND		25	26.0	104	25	25.4	102	2	68-121/12
78-87-5	1,2-Dichloropropane	ND		25	24.4	98	25	23.5	94	4	72-116/12
124-48-1	Dibromochloromethane	ND		25	26.7	107	25	26.3	105	2	68-119/15
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.6	94	25	22.8	91	3	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	24.9	100	25	24.2	97	3	71-118/18
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.6	102	25	24.7	99	4	68-124/15
10061-02-6	trans-1,3-Dichloropropene	ND		25	26.6	106	25	26.1	104	2	72-127/17
100-41-4	Ethylbenzene	ND		25	26.0	104	25	25.6	102	2	71-117/12
591-78-6	2-Hexanone	ND		125	130	104	125	124	99	5	49-124/21
108-10-1	4-Methyl-2-pentanone	ND		125	126	101	125	120	96	5	54-122/20
74-83-9	Methyl bromide	ND		25	26.0	104	25	27.1	108	4	53-138/16
74-87-3	Methyl chloride	ND		25	32.2	129	25	32.4	130	1	50-145/17
75-09-2	Methylene chloride	ND		25	26.0	104	25	25.7	103	1	60-125/16
78-93-3	Methyl ethyl ketone	ND		125	140	112	125	132	106	6	51-129/22
100-42-5	Styrene	ND		25	26.9	108	25	26.2	105	3	74-119/19
71-55-6	1,1,1-Trichloroethane	ND		25	25.4	102	25	24.3	97	4	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.5	98	25	23.3	93	5	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		25	25.2	101	25	24.7	99	2	70-119/13
127-18-4	Tetrachloroethylene	ND		25	25.9	104	25	25.4	102	2	72-132/14
108-88-3	Toluene	ND		25	25.2	101	25	24.6	98	2	73-119/13
79-01-6	Trichloroethylene	ND		25	25.7	103	25	25.6	102	0	73-121/13
75-01-4	Vinyl chloride	ND		25	25.8	103	25	25.8	103	0	54-126/17
1330-20-7	Xylene (total)	ND		75	78.7	105	75	76.5	102	3	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD801
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1032-1MS	Z55292.D	1	03/28/17	EM	n/a	n/a	VZ5269
TD1032-1MSD	Z55293.D	1	03/28/17	EM	n/a	n/a	VZ5269
TD1032-1	Z55291.D	1	03/28/17	EM	n/a	n/a	VZ5269

The QC reported here applies to the following samples: Method: EPA 624

TD801-1

CAS No.	Surrogate Recoveries	MS	MSD	TD1032-1	Limits
1868-53-7	Dibromofluoromethane	100%	101%	101%	72-122%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	105%	68-124%
2037-26-5	Toluene-D8	99%	99%	101%	80-119%
460-00-4	4-Bromofluorobenzene	97%	96%	97%	72-126%

* = Outside of Control Limits.

5.3.1
5

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: TD801**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-MB	J186413A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples:**Method:** EPA 625

TD801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	1.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.4	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.8	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	3.8	ug/l	
95-48-7	2-Methylphenol	ND	5.0	1.4	ug/l	
	3&4-Methylphenol	ND	5.0	1.5	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.8	ug/l	
100-02-7	4-Nitrophenol	ND	25	13	ug/l	
87-86-5	Pentachlorophenol	ND	25	3.2	ug/l	
108-95-2	Phenol	ND	5.0	1.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.5	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.7	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.7	ug/l	
120-12-7	Anthracene	ND	5.0	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.8	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.8	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.6	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.9	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	1.7	ug/l	
86-74-8	Carbazole	ND	5.0	1.9	ug/l	
218-01-9	Chrysene	ND	5.0	1.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.9	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.6	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.6	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.8	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.8	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.6	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: TD801**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-MB	J186413A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples:**Method:** EPA 625

TD801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.6	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.1	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.9	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.1	ug/l	
86-73-7	Fluorene	ND	5.0	1.8	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.6	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.7	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.4	ug/l	
78-59-1	Isophorone	ND	5.0	1.8	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.6	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.9	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.6	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.5	ug/l	
91-20-3	Naphthalene	ND	5.0	1.8	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.8	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.9	ug/l	
129-00-0	Pyrene	ND	5.0	1.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	30% 10-66%
4165-62-2	Phenol-d5	20% 10-63%

Method Blank Summary

Job Number: TD801
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-MB	J186413A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples: Method: EPA 625

TD801-1

CAS No.	Surrogate Recoveries	Limits
118-79-6	2,4,6-Tribromophenol	76% 32-128%
4165-60-0	Nitrobenzene-d5	79% 29-115%
321-60-8	2-Fluorobiphenyl	72% 34-113%
1718-51-0	Terphenyl-d14	79% 23-138%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: TD801

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-BS	J186414A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502
OP43129-BSD ^a	J186415.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples:

Method: EPA 625

TD801-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	26.5	26	26.8	27	1	10-91/30
95-57-8	2-Chlorophenol	50	23.9	48	23.4	47	2	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	34.0	68	33.8	68	1	30-110/30
120-83-2	2,4-Dichlorophenol	50	35.5	71	34.7	69	2	41-107/30
105-67-9	2,4-Dimethylphenol	50	31.3	63	30.9	62	1	39-107/30
51-28-5	2,4-Dinitrophenol	50	42.0	84	41.6	83	1	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	49.2	98	49.1	98	0	40-121/30
95-48-7	2-Methylphenol	50	20.3	41	20.3	41	0	33-93/30
	3&4-Methylphenol	50	19.9	40	18.7	37	6	28-99/30
88-75-5	2-Nitrophenol	50	33.4	67	32.9	66	2	38-107/30
100-02-7	4-Nitrophenol	50	18.4	37	18.2	36	1	10-78/30
87-86-5	Pentachlorophenol	50	38.8	78	40.2	80	4	28-116/30
108-95-2	Phenol	50	10.5	21	10.4	21	1	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	39.9	80	38.4	77	4	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	38.6	77	39.1	78	1	44-112/30
83-32-9	Acenaphthene	50	33.6	67	34.6	69	3	44-106/30
208-96-8	Acenaphthylene	50	35.4	71	36.2	72	2	46-111/30
120-12-7	Anthracene	50	39.4	79	39.2	78	1	53-114/30
56-55-3	Benzo(a)anthracene	50	39.8	80	39.6	79	1	57-113/30
50-32-8	Benzo(a)pyrene	50	40.2	80	39.6	79	2	50-109/30
205-99-2	Benzo(b)fluoranthene	50	41.6	83	41.1	82	1	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	43.9	88	42.9	86	2	43-127/30
207-08-9	Benzo(k)fluoranthene	50	41.8	84	40.4	81	3	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	44.0	88	40.5	81	8	48-113/30
85-68-7	Butyl benzyl phthalate	50	40.6	81	40.4	81	0	42-120/30
100-51-6	Benzyl Alcohol	50	21.5	43	21.5	43	0	31-97/30
91-58-7	2-Chloronaphthalene	50	33.4	67	34.3	69	3	35-123/30
106-47-8	4-Chloroaniline	50	30.8	62	30.2	60	2	36-104/30
86-74-8	Carbazole	50	42.2	84	42.0	84	0	50-113/30
218-01-9	Chrysene	50	39.7	79	40.3	81	1	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	31.0	62	30.5	61	2	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	30.1	60	28.3	57	6	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	28.5	57	27.6	55	3	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	42.0	84	42.0	84	0	45-112/30
95-50-1	1,2-Dichlorobenzene	50	27.5	55	26.8	54	3	37-100/30
541-73-1	1,3-Dichlorobenzene	50	27.3	55	26.6	53	3	34-99/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: TD801

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-BS	J186414A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502
OP43129-BSD ^a	J186415.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples:

Method: EPA 625

TD801-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	50	27.7	55	27.2	54	2	36-99/30
121-14-2	2,4-Dinitrotoluene	50	46.6	93	49.8	100	7	52-115/30
606-20-2	2,6-Dinitrotoluene	50	43.4	87	46.1	92	6	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	40.3	81	40.4	81	0	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	44.2	88	43.5	87	2	47-125/30
132-64-9	Dibenzofuran	50	37.0	74	38.7	77	4	45-108/30
84-74-2	Di-n-butyl phthalate	50	43.3	87	43.3	87	0	47-118/30
117-84-0	Di-n-octyl phthalate	50	39.2	78	38.6	77	2	41-124/30
84-66-2	Diethyl phthalate	50	40.7	81	41.7	83	2	38-121/30
131-11-3	Dimethyl phthalate	50	39.2	78	41.1	82	5	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	40.2	80	39.8	80	1	50-123/30
206-44-0	Fluoranthene	50	43.9	88	44.3	89	1	50-118/30
86-73-7	Fluorene	50	39.3	79	39.8	80	1	47-113/30
118-74-1	Hexachlorobenzene	50	47.6	95	48.1	96	1	49-114/30
87-68-3	Hexachlorobutadiene	100	61.6	62	62.2	62	1	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	10.3	21	10.7	21	4	10-97/30
67-72-1	Hexachloroethane	50	25.8	52	24.9	50	4	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	45.0	90	44.5	89	1	45-127/30
78-59-1	Isophorone	50	33.8	68	33.2	66	2	40-103/30
91-57-6	2-Methylnaphthalene	50	30.8	62	30.1	60	2	36-104/30
88-74-4	2-Nitroaniline	50	35.2	70	36.9	74	5	41-117/30
99-09-2	3-Nitroaniline	50	35.6	71	36.3	73	2	37-117/30
100-01-6	4-Nitroaniline	50	35.6	71	39.3	79	10	47-121/30
91-20-3	Naphthalene	50	30.4	61	30.4	61	0	40-104/30
98-95-3	Nitrobenzene	50	35.6	71	36.3	73	2	40-103/30
621-64-7	N-Nitroso-di-n-propylamine	50	32.9	66	32.1	64	2	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	80.4	80	77.0	77	4	39-109/30
85-01-8	Phenanthrene	50	39.5	79	39.7	79	1	53-114/30
129-00-0	Pyrene	50	40.9	82	39.6	79	3	51-117/30
120-82-1	1,2,4-Trichlorobenzene	50	30.2	60	30.9	62	2	32-103/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	27%	26%	10-66%
4165-62-2	Phenol-d5	19%	17%	10-63%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: TD801

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43129-BS	J186414A.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502
OP43129-BSD ^a	J186415.D	1	03/22/17	SC	03/22/17	OP43129	EJ2502

The QC reported here applies to the following samples:

Method: EPA 625

TD801-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
118-79-6	2,4,6-Tribromophenol	91%	87%	32-128%
4165-60-0	Nitrobenzene-d5	69%	67%	29-115%
321-60-8	2-Fluorobiphenyl	62%	65%	34-113%
1718-51-0	Terphenyl-d14	83%	80%	23-138%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
BOD, 5 Day	GP41291/GN80428	2.0	0.0	mg/l	198	197	99.5	82-114%
Chloride	GP41315/GN80465	0.50	0.0	mg/l	10	9.79	97.9	90-110%
Nitrogen, Ammonia	GP41310/GN80448	0.10	0.0	mg/l	2	1.93	96.5	90-110%
Nitrogen, Nitrate	GP41315/GN80465	0.50	0.0	mg/l	10	9.64	96.4	90-110%
Nitrogen, Nitrite	GP41315/GN80465	0.50	0.0	mg/l	10	9.97	99.7	90-110%
Phosphorus, Total	GP41359/GN80523	0.020	0.0	mg/l	0.4	0.41	102.5	91-108%
Sulfate	GP41315/GN80465	0.60	0.0	mg/l	10	9.86	98.6	90-110%
Sulfide	GN80491	0.20	0.0	mg/l	1600	1600	100.0	90-105%
Sulfite	GN80441	3.0	0.0	mg/l	50	50.5	101.0	97-102%

Associated Samples:

Batch GN80441: TD801-1
Batch GN80491: TD801-1
Batch GP41291: TD801-1
Batch GP41310: TD801-1
Batch GP41315: TD801-1
Batch GP41359: TD801-1
(*) Outside of QC limits

7.1
7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN80491	mg/l	1600	1600	0.0	

Associated Samples:
Batch GN80491: TD801-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
BOD, 5 Day	GP41291/GN80428	TD769-2A	mg/l	3.4	3.8	11.1	0-15%
Chloride	GP41315/GN80465	TD800-3	mg/l	345	386	11.2	0-20%
Nitrogen, Ammonia	GP41310/GN80448	TD812-1A	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrate	GP41315/GN80465	TD800-3	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrite	GP41315/GN80465	TD800-3	mg/l	0.0	0.0	0.0	0-20%
Phosphorus, Total	GP41359/GN80523	TD641-1	mg/l	0.19	0.19	0.0	0-20%
Sulfate	GP41315/GN80465	TD800-3	mg/l	61.7	61.5	0.3	0-20%
Sulfite	GN80441	TD801-1	mg/l	0.77 U	0.0	0.0	0-10%

Associated Samples:

Batch GN80441: TD801-1
Batch GP41291: TD801-1
Batch GP41310: TD801-1
Batch GP41315: TD801-1
Batch GP41359: TD801-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP41315/GN80465	TD800-3	mg/l	345	500	1020	135.0N(a)	80-120%
Nitrogen, Ammonia	GP41310/GN80448	TD812-1A	mg/l	0.0	2	2.0	100.0	90-110%
Nitrogen, Nitrate	GP41315/GN80465	TD800-3	mg/l	0.0	500	547	109.4	80-120%
Nitrogen, Nitrite	GP41315/GN80465	TD800-3	mg/l	0.0	500	574	114.8	80-130%
Phosphorus, Total	GP41359/GN80523	TD641-1	mg/l	0.19	0.8	0.97	97.5	83-110%
Sulfate	GP41315/GN80465	TD800-3	mg/l	61.7	500	638	115.3	80-120%
Sulfite	GN80441	TD801-1	mg/l	0.77 U	50	50.0	100.0	95-102%

Associated Samples:

Batch GN80441: TD801-1

Batch GP41310: TD801-1

Batch GP41315: TD801-1

Batch GP41359: TD801-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Outside control limits due to matrix interference.

7.4

7

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody



ACCUTEST

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

[illegible]

8.1

TD801: Chain of Custody

Page 1 of 2

SGS Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: TD801

Client: _____

Project: _____

Date / Time Received: 3/22/2017 9:15:00 AM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (0.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.1);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

SM089-02
Rev. Date 12/1/16

TD801: Chain of Custody

Page 2 of 2

GC Semi-volatiles

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD801
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1399-MB1	2G144360.D	1	03/28/17	SP	03/26/17	OP1399	G2G3973

The QC reported here applies to the following samples: Method: EPA 608

TD801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.17	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.15	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.14	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.13	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.17	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.14	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	111% 10-156%
877-09-8	Tetrachloro-m-xylene	115% 10-156%
2051-24-3	Decachlorobiphenyl	33% 10-143%
2051-24-3	Decachlorobiphenyl	41% 10-143%

Method Blank Summary

Page 1 of 1

Job Number: TD801

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1400-MB1	6G45319.D	1	03/28/17	KD	03/26/17	OP1400	G6G1295

The QC reported here applies to the following samples:

Method: EPA 608

TD801-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0030	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0030	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0028	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0023	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0014	ug/l	
12789-03-6	Chlordane	ND	0.10	0.057	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0018	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0019	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0031	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0026	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0021	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0019	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0033	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0028	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.092	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	96% 10-156%
877-09-8	Tetrachloro-m-xylene	100% 10-156%
2051-24-3	Decachlorobiphenyl	25% 10-143%
2051-24-3	Decachlorobiphenyl	23% 10-143%

9.1.2
9

Blank Spike Summary

Page 1 of 1

Job Number: TD801

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1399-BS1	2G144361.D	1	03/28/17	SP	03/26/17	OP1399	G2G3973

The QC reported here applies to the following samples:

Method: EPA 608

TD801-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.5	125 ^a	42-160
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	2	2.1	105	41-158

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	116%	10-156%
877-09-8	Tetrachloro-m-xylene	119%	10-156%
2051-24-3	Decachlorobiphenyl	28%	10-143%
2051-24-3	Decachlorobiphenyl	31%	10-143%

(a) Reported from 2nd signal. %D of check calibration on 1st signal exceed method criteria (15%) so using for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: TD801

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1400-BS1	6G45320.D	1	03/28/17	KD	03/26/17	OP1400	G6G1295

The QC reported here applies to the following samples:

Method: EPA 608

TD801-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.22	88	18-142
319-84-6	alpha-BHC	0.25	0.26	104	40-149
319-85-7	beta-BHC	0.25	0.26	104	41-141
319-86-8	delta-BHC	0.25	0.28	112	34-160
58-89-9	gamma-BHC (Lindane)	0.25	0.26	104	40-148
60-57-1	Dieldrin	0.25	0.27	108	41-152
72-54-8	4,4'-DDD	0.25	0.27	108	38-153
72-55-9	4,4'-DDE	0.25	0.27	108	35-146
50-29-3	4,4'-DDT	0.25	0.28	112	36-158
72-20-8	Endrin	0.25	0.28	112	45-161
1031-07-8	Endosulfan sulfate	0.25	0.27	108	41-154
7421-93-4	Endrin aldehyde	0.25	0.28	112	41-153
959-98-8	Endosulfan-I	0.25	0.26	104	38-146
33213-65-9	Endosulfan-II	0.25	0.27	108	40-149
76-44-8	Heptachlor	0.25	0.23	92	27-141
1024-57-3	Heptachlor epoxide	0.25	0.26	104	39-148
72-43-5	Methoxychlor	0.25	0.26	104	38-153

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	87%	10-156%
877-09-8	Tetrachloro-m-xylene	92%	10-156%
2051-24-3	Decachlorobiphenyl	66%	10-143%
2051-24-3	Decachlorobiphenyl	62%	10-143%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD801
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1399-MS	2G144324.D	1	03/27/17	SP	03/26/17	OP1399	G2G3972
OP1399-MSD	2G144325.D	1	03/27/17	SP	03/26/17	OP1399	G2G3972
JC39468-3	2G144323.D	1	03/27/17	SP	03/26/17	OP1399	G2G3972

The QC reported here applies to the following samples: Method: EPA 608

TD801-1

CAS No.	Compound	JC39468-3 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	4.94	6.4	130	4.94	6.6	134	3	27-180/37
11104-28-2	Aroclor 1221	ND		ND			ND		nc	70-130/30
11141-16-5	Aroclor 1232	ND		ND			ND		nc	70-130/30
53469-21-9	Aroclor 1242	ND		ND			ND		nc	70-130/30
12672-29-6	Aroclor 1248	ND		ND			ND		nc	70-130/30
11097-69-1	Aroclor 1254	ND		ND			ND		nc	70-130/2
11096-82-5	Aroclor 1260	ND	4.94	5.2	105	4.94	5.1	103	2	10-177/41

CAS No.	Surrogate Recoveries	MS	MSD	JC39468-3	Limits
877-09-8	Tetrachloro-m-xylene	116%	120%	106%	10-156%
877-09-8	Tetrachloro-m-xylene	119%	125%	105%	10-156%
2051-24-3	Decachlorobiphenyl	79%	83%	55%	10-143%
2051-24-3	Decachlorobiphenyl	103%	100%	65%	10-143%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99436
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/23/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.19	1.3		
Antimony	2.0	.062	.26		
Arsenic	1.0	.0096	.034	-0.0053	<1.0
Barium	1.0	.0023	.028	0.0054	<1.0
Beryllium	0.50	.0026	.013		
Boron	50	.53			
Cadmium	0.50	.003	.12	-0.0049	<0.50
Calcium	250	1.4	3.7		
Chromium	4.0	.016	.1	-0.0021	<4.0
Cobalt	0.50	.002	.018		
Copper	4.0	.016	.14		
Iron	50	.13	2		
Lead	0.50	.0043	.011	0.016	<0.50
Magnesium	250	.14	3.6		
Manganese	1.0	.011	.095		
Molybdenum	1.0	.021	.23		
Nickel	4.0	.017	.11		
Potassium	250	1.5	8.8		
Selenium	1.0	.011	.12	0.038	<1.0
Silver	2.0	.0044	.041	0.0036	<2.0
Sodium	250	.89	2.5		
Strontium	5.0	.004	.015		
Thallium	0.50	.002	.013		
Tin	5.0	.038	.38		
Titanium	1.0	.022	.56		
Vanadium	4.0	.015	.2		
Zinc	10	.06	1.2		

Associated samples MP99436: TD801-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99436
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/23/17

Metal	MC49905-1 Original MS		SpikeLot MPX200.8 % Rec		QC Limits
Aluminum	anr				
Antimony					
Arsenic	0.93	105	100	104.1	70-130
Barium	27.7	137	100	109.3	70-130
Beryllium					
Boron					
Cadmium	0.025	103	100	103.0	70-130
Calcium					
Chromium	1.5	106	100	104.5	70-130
Cobalt					
Copper	anr				
Iron	anr				
Lead	5.9	116	100	110.1	70-130
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.15	211	200	105.4	70-130
Silver	0.015	78.7	76.5	102.9	70-130
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP99436: TD801-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99436
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/23/17

Metal	MC49905-1 Original MSD		SpikeLot MPX200.8 % Rec		MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	0.93	105	100	104.1	0.0	10
Barium	27.7	134	100	106.3	2.2	20
Beryllium						
Boron						
Cadmium	0.025	103	100	103.0	0.0	10
Calcium						
Chromium	1.5	105	100	103.5	0.9	10
Cobalt						
Copper	anr					
Iron	anr					
Lead	5.9	113	100	107.1	2.6	10
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.15	211	200	105.4	0.0	10
Silver	0.015	77.2	76.5	100.9	1.9	10
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP99436: TD801-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

10.1.2
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99436
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 03/23/17

Metal	BSP Result	Spikelot MPX200.8	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic	107	100	107.0	85-115
Barium	105	100	105.0	85-115
Beryllium				
Boron				
Cadmium	107	100	107.0	85-115
Calcium				
Chromium	106	100	106.0	85-115
Cobalt				
Copper	anr			
Iron	anr			
Lead	105	100	105.0	85-115
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	219	200	109.5	85-115
Silver	79.0	76.5	103.3	85-115
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP99436: TD801-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99469
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 03/25/17

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.012	.055	0.030	<0.20

Associated samples MP99469: TD801-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD801
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99469
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/25/17

Metal	TD801-1 Original MS		Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	1.9	2	95.0	70-130

Associated samples MP99469: TD801-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.2.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD801
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99469
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/25/17

Metal	TD801-1 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	1.9	2	95.0	0.0	19

Associated samples MP99469: TD801-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD801
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99469
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/25/17

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.2	2	110.0	85-115

Associated samples MP99469: TD801-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Lafayette)

Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

Page 1 of 2

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

FED-EX Tracking #		Bottle Order Control #	
SGS Accutest Quote #		SGS Accutest Job	
		TD801	
Client / Reporting Information		Project Information	
Company Name: SGS Accutest		Project Name: Permit	
Street Address: 10165 Harwin Drive		Street: Billing Information (if different from Report to)	
City State Zip: Houston TX 77036		City State Zip: Company Name	
Project Contact: E-mail: long.nguyen2@sgs.com		Project #: Street Address	
Phone #: 713-271-4700		Client Purchase Order #: City State Zip	
Sampler(s) Name(s):		Project Manager: Attention:	
Field ID / Point of Collection		MEOH/DI Val #	
Date		Time	
Sampled by		Matrix	
# of bottles		Number of preserved bottles	
HCl		NaOH	
HNO3		H2SO4	
NONE		NONE	
DI Water		EDD Form	
MEOH		ENCORE	
MBAS			
LAB USE ONLY			
Turnaround Time (Business days)		Data Deliverable Information	
Approved By (SGS Accutest PM): / Date:		Comments / Special Instructions	
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input checked="" type="checkbox"/> other Due 3/28/2017		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> Other COMMB	
Emergency & Rush T/A data available via Lablink		Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler: S. Jones		Received By: 1. S. Jones	
Date Time: 3-21-17 18:00		Date Time: 3-22-17 18:00	
Relinquished by Sampler: Johnny Hossain		Received By: 2. Johnny Hossain	
Date Time: 3-22-17 18:00		Date Time: 3-22-17 18:00	
Relinquished by:		Received By:	
Date Time:		Date Time:	
5		5	
Custody Seal		Intact	
Not Intact		Preserved where applicable	
On Ice		Cooler Temp.	
1.8		4.8	

TD801: Chain of Custody
Page 1 of 3
SGS Accutest Lafayette

Date / Time: 3/21/2017 5:37:42 PM
CSR: LONGN
Job #: TD801
Client Project: Permit
Deliverable: COMMB
TAT: Due 3/28/2017

Sub Lab: Accutest Gulf Coast Louisiana
Address: 500 Ambassador Caffery Prkway
City: Scott
State: LA Zip: 70583
Contact: Sample Receiving
Phone: 800-304-5227

SGS Accutest Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
TD801-1	PERMIT RENEWEL	AGMS,ASMS,BAMS,CDMS,CRMS,HG, MBAS,P608PCBAO,P608PESTPPL, PBMS,SEMS	1M,3P,4AA,SUB,VR		3/21/2017	10:00:00 AM	

Comments:

Sample Management Receipt: _____

Date: _____

1 = 1 liter cup
(14) 1/1

TD801: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Job Number: TD801

Client: SGS (TX)

Project: PERMIT RENEWAL

Date / Time Received: 3/22/2017 10:15:00 AM

Delivery Method: Accutest Courier

Airbill #s: _____

Cooler Temps (Initial/Adjusted): #1: (1.8/1.8):

Cooler Security

	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Thermometer ID:	_____ ; _____		
3. Cooler media:	<u>Ice (direct contact)</u>		
4. No. Coolers:	<u>1</u>		

Quality Control Preservation

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>		

Sample Integrity - Instructions

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

TD801: Chain of Custody

Page 3 of 3



General Chemistry

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Surfactants, MBAS as LAS	GN10215	0.10	0.0	mg/l	.75	0.70	94.0	80-120%

Associated Samples:
Batch GN10215: TD801-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Surfactants, MBAS as LAS	GN10215	TD801-1	mg/l	0.21	.75	0.42	27.0(a)	80-120%

Associated Samples:

Batch GN10215: TD801-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Outside control limits due to matrix interference and/or sample nonhomogeneity.

12.2
12

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD801
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Surfactants, MBAS as LAS	GN10215	TD801-1	mg/l	0.21	.75	0.42	1.2	

Associated Samples:
Batch GN10215: TD801-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Technical Report for

Gulf Chemical & Metallurgical Corp.

Permit

SGS Accutest Job Number: TD1123

Sampling Date: 03/28/17


Report to:

Gulf Chemical & Metallurgical Corp.
P.O. Box 2290
Freeport, TX 77542
bobby.provence@eramet-gulf.com; robert.marsh@eramet-gulf.com
ATTN: Robert Marsh

Total number of pages in report: 71



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.


Richard Rodriguez
Laboratory Director

Client Service contact: Electa Brown 713-271-4700

Certifications: TX (T104704220-17-26) AR (14-016-0) AZ (AZ0769) FL (E87628)
KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-172) VA (7654)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: TD1123-1: PERMIT RENEWEL	6
Section 4: Misc. Forms	15
4.1: Chain of Custody	16
Section 5: GC/MS Volatiles - QC Data Summaries	21
5.1: Method Blank Summary	22
5.2: Blank Spike Summary	24
5.3: Matrix Spike/Matrix Spike Duplicate Summary	26
Section 6: GC/MS Semi-volatiles - QC Data Summaries	28
6.1: Method Blank Summary	29
6.2: Blank Spike/Blank Spike Duplicate Summary	32
Section 7: General Chemistry - QC Data Summaries	35
7.1: Method Blank and Spike Results Summary	36
7.2: Blank Spike Duplicate Results Summary	37
7.3: Duplicate Results Summary	38
7.4: Matrix Spike Results Summary	39
Section 8: Misc. Forms (SGS Accutest New Jersey)	40
8.1: Chain of Custody	41
Section 9: GC Semi-volatiles - QC Data (SGS Accutest New Jersey)	45
9.1: Method Blank Summary	46
9.2: Blank Spike Summary	50
9.3: Matrix Spike/Matrix Spike Duplicate Summary	53
Section 10: Metals Analysis - QC Data (SGS Accutest New Jersey)	55
10.1: Prep QC MP99643: As,Ba,Cd,Cr,Pb,Se,Ag	56
10.2: Prep QC MP99659: Hg	60
Section 11: Misc. Forms (SGS Accutest Lafayette)	64
11.1: Chain of Custody	65
Section 12: General Chemistry - QC Data (SGS Accutest Lafayette)	68
12.1: Method Blank and Spike Results Summary	69
12.2: Blank Spike Duplicate Results Summary	70
12.3: Duplicate Results Summary	71



Sample Summary

Gulf Chemical & Metallurgical Corp.
Permit

Job No: TD1123

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
TD1123-1	03/28/17	10:00	03/28/17	AQ Water	PERMIT RENEWEL

Summary of Hits

Job Number: TD1123
Account: Gulf Chemical & Metallurgical Corp.
Project: Permit
Collected: 03/28/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

TD1123-1 PERMIT RENEWEL

Acetone	0.140	0.050	0.010	mg/l	EPA 624
Chloroform	0.00083 J	0.0010	0.00030	mg/l	EPA 624
2-Hexanone	0.0046 J	0.010	0.0012	mg/l	EPA 624
4-Methyl-2-pentanone	0.0044 J	0.010	0.0023	mg/l	EPA 624
Methyl chloride	0.0011	0.0010	0.00030	mg/l	EPA 624
Methyl ethyl ketone	0.0241	0.010	0.0026	mg/l	EPA 624
gamma-BHC (Lindane) ^a	0.000012	0.000010	0.0000014	mg/l	EPA 608
Arsenic ^b	0.649	0.25	0.0085	mg/l	EPA 200.8
Barium ^b	0.0231 B	0.25	0.0070	mg/l	EPA 200.8
Lead ^b	0.0194 B	0.13	0.0026	mg/l	EPA 200.8
Mercury ^c	0.00034 B	0.00060	0.00017	mg/l	EPA 245.1
Selenium ^b	0.596	0.25	0.029	mg/l	EPA 200.8
Silver ^b	0.0138 B	0.50	0.010	mg/l	EPA 200.8
BOD, 5 Day	9.6	6.0	3.0	mg/l	SM 5210B-2000
Nitrogen, Ammonia	177	4.0	0.80	mg/l	EPA 350.1
Phosphorus, Total	1.3	0.10	0.050	mg/l	SM 4500PE-2011
Surfactants, MBAS as LAS ^d	0.26	0.10	0.080	mg/l	SM5540 C-11

(a) Analysis performed at SGS Accutest, Dayton, NJ.

(b) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.

(c) Elevated sample detection limit due to difficult sample matrix. Analysis performed at SGS Accutest, Dayton, NJ.

(d) Analysis performed at SGS Accutest, Lafayette, LA.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/28/17
Lab Sample ID:	TD1123-1	Date Received:	03/28/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0058665.D	1	04/01/17	ZQ	n/a	n/a	VE2599
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.140	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00030	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00030	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00033	mg/l	
67-66-3	Chloroform	0.00083	0.0010	0.00030	mg/l	J
75-15-0	Carbon disulfide	ND	0.0050	0.00075	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00054	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00030	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00030	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00030	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00030	mg/l	
591-78-6	2-Hexanone	0.0046	0.010	0.0012	mg/l	J
108-10-1	4-Methyl-2-pentanone	0.0044	0.010	0.0023	mg/l	J
74-83-9	Methyl bromide	ND	0.0010	0.00049	mg/l	
74-87-3	Methyl chloride	0.0011	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0013	mg/l	
78-93-3	Methyl ethyl ketone	0.0241	0.010	0.0026	mg/l	
100-42-5	Styrene	ND	0.0010	0.00030	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00030	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00030	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00030	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00030	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1123-1
Matrix: AQ - Water
Method: EPA 624
Project: Permit

Date Sampled: 03/28/17
Date Received: 03/28/17
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	0.0010	0.00030	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00065	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-122%
17060-07-0	1,2-Dichloroethane-D4	109%		68-124%
2037-26-5	Toluene-D8	100%		80-119%
460-00-4	4-Bromofluorobenzene	103%		72-126%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/28/17
Lab Sample ID:	TD1123-1	Date Received:	03/28/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J186547.D	1	03/30/17	SC	03/29/17	OP43183	EJ2507
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.021	0.0018	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0015	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0018	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0021	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0011	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.0013	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0040	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.0015	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0019	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.013	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.0034	mg/l	
108-95-2	Phenol	ND	0.0053	0.0013	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0016	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0018	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0020	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0019	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0021	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.0023	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0021	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0021	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0020	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0019	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0017	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0020	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0018	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0020	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0018	mg/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0019	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0016	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1123-1
Matrix: AQ - Water
Method: EPA 625 EPA 625
Project: Permit

Date Sampled: 03/28/17
Date Received: 03/28/17
Percent Solids: n/a

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0017	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0019	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0019	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0022	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0019	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0021	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0022	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0019	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0021	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0027	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0019	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0021	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0053	0.0020	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0022	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0019	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0021	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0020	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0017	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0018	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0025	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0019	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0017	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0020	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0017	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0026	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0018	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0053	0.0020	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0019	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0020	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0019	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0019	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		10-66%
4165-62-2	Phenol-d5	25%		10-63%
118-79-6	2,4,6-Tribromophenol	93%		32-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/28/17
Lab Sample ID:	TD1123-1	Date Received:	03/28/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		29-115%
321-60-8	2-Fluorobiphenyl	52%		34-113%
1718-51-0	Terphenyl-d14	81%		23-138%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	03/28/17
Lab Sample ID:	TD1123-1	Date Received:	03/28/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 608 EPA 608		
Project:	Permit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	6G45515.D	1	04/03/17	ANJ	03/31/17	N:OP1541	N:G6G1299
Run #2 ^a	XX207432.D	1	04/01/17	ANJ	03/31/17	N:OP1540	N:GXX5980

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2	1000 ml	5.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0000100	0.0000030	mg/l	
319-84-6	alpha-BHC	ND	0.0000100	0.0000030	mg/l	
319-85-7	beta-BHC	ND	0.0000100	0.0000028	mg/l	
319-86-8	delta-BHC	ND	0.0000100	0.0000023	mg/l	
58-89-9	gamma-BHC (Lindane)	0.000012	0.0000100	0.0000014	mg/l	
12789-03-6	Chlordane	ND	0.00010	0.000057	mg/l	
60-57-1	Dieldrin	ND	0.0000100	0.0000018	mg/l	
72-54-8	4,4' -DDD	ND	0.0000100	0.0000019	mg/l	
72-55-9	4,4' -DDE	ND	0.0000100	0.000003	mg/l	
50-29-3	4,4' -DDT	ND	0.0000100	0.0000025	mg/l	
72-20-8	Endrin	ND	0.0000100	0.0000025	mg/l	
1031-07-8	Endosulfan sulfate	ND	0.0000100	0.0000026	mg/l	
7421-93-4	Endrin aldehyde	ND	0.0000100	0.0000026	mg/l	
959-98-8	Endosulfan-I	ND	0.0000100	0.0000025	mg/l	
33213-65-9	Endosulfan-II	ND	0.0000100	0.000002	mg/l	
76-44-8	Heptachlor	ND	0.0000100	0.0000019	mg/l	
1024-57-3	Heptachlor epoxide	ND	0.0000100	0.000003	mg/l	
72-43-5	Methoxychlor	ND	0.0000100	0.0000028	mg/l	
8001-35-2	Toxaphene	ND	0.00013	0.000092	mg/l	
12674-11-2	Aroclor 1016	ND ^b	0.00025	0.00017	mg/l	
11104-28-2	Aroclor 1221	ND ^b	0.00025	0.00015	mg/l	
11141-16-5	Aroclor 1232	ND ^b	0.00025	0.00010	mg/l	
53469-21-9	Aroclor 1242	ND ^b	0.00025	0.00014	mg/l	
12672-29-6	Aroclor 1248	ND ^b	0.00025	0.00013	mg/l	
11097-69-1	Aroclor 1254	ND ^b	0.00025	0.00017	mg/l	
11096-82-5	Aroclor 1260	ND ^b	0.00025	0.00014	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%	94%	10-156%
877-09-8	Tetrachloro-m-xylene	74%	76%	10-156%
2051-24-3	Decachlorobiphenyl	50%	35%	10-143%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1123-1
Matrix: AQ - Water
Method: EPA 608 EPA 608
Project: Permit

Date Sampled: 03/28/17
Date Received: 03/28/17
Percent Solids: n/a

PCB List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	40%	36%	10-143%

(a) Analysis performed at SGS Accutest, Dayton, NJ.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL

Lab Sample ID: TD1123-1

Matrix: AQ - Water

Project: Permit

Date Sampled: 03/28/17

Date Received: 03/28/17

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	0.649	0.25	0.0085	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Barium ^a	0.0231 B	0.25	0.0070	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Cadmium ^a	0.030 U	0.13	0.030	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Chromium ^a	0.026 U	1.0	0.026	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Lead ^a	0.0194 B	0.13	0.0026	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Mercury ^b	0.00034 B	0.00060	0.00017	mg/l	1	04/03/17	04/03/17 ANJ	EPA 245.1 ¹	EPA 245.1 ⁴
Selenium ^a	0.596	0.25	0.029	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³
Silver ^a	0.0138 B	0.50	0.010	mg/l	250	04/02/17	04/03/17 ANJ	EPA 200.8 ²	EPA 200.8 ³

(1) Instrument QC Batch: N:MA41696

(2) Instrument QC Batch: N:MA41704

(3) Prep QC Batch: N:MP99643

(4) Prep QC Batch: N:MP99659

(a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.

(b) Elevated sample detection limit due to difficult sample matrix. Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: PERMIT RENEWEL**Lab Sample ID:** TD1123-1**Matrix:** AQ - Water**Project:** Permit**Date Sampled:** 03/28/17**Date Received:** 03/28/17**Percent Solids:** n/a**General Chemistry**

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
BOD, 5 Day	9.6	6.0	3.0	mg/l	1	03/28/17 18:39 OZ	SM	5210B-2000
Nitrogen, Ammonia	177	4.0	0.80	mg/l	40	03/30/17	TH	EPA 350.1
Nitrogen, Nitrate ^a	2.7 U	5.0	2.7	mg/l	10	03/29/17 01:26 ES	EPA	300
Nitrogen, Nitrite ^a	2.7 U	5.0	2.7	mg/l	10	03/29/17 01:26 ES	EPA	300
Phosphorus, Total	1.3	0.10	0.050	mg/l	5	03/31/17	BG	SM 4500PE-2011
Sulfide	0.010 U	0.20	0.010	mg/l	1	04/04/17	TH	SM 4500S+ F-2000
Sulfite	0.77 U	3.0	0.77	mg/l	1	03/28/17 16:10 CV	SM	4500 SO32 B-2011
Surfactants, MBAS as LAS ^b	0.26	0.10	0.080	mg/l	1	03/29/17 13:40 ALAS	SM5540	C-11

(a) Elevated reporting limit due to matrix interference.

(b) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

PAGE 1 OF 1

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.com

[illegible]

TD1123: Chain of Custody

Page 1 of 5

SGS

ACCUTEST

COOLER TEMP FORM

TC#

TD1123

Delivered by (circle one):

FedEx/UPS

ALGC Driver

Client

Date:

3/28/17

Client:

GULF CHEMICAL

Cooler Number:

1

Thermometer ID:

1705

cf, °C

0.0

Corrected Temp, °C

3.0

SAMPLES CONTAINED IN COOLER

TD1123: Chain of Custody
Page 2 of 5

Form: SN027-05 Rev 10/24/2016

SGS Accutest Sample Receipt Summary

Page 1 of 3

Job Number: TD1123

Client: GULF CHEMICAL & METALLURGICAL

Project: PERMIT

Date / Time Received:

Delivery Method:

Airbill #'s:

No. Coolers: 1

Therm ID: IR-5;

Temp Adjustment Factor: 0;

Cooler Temps (Initial/Adjusted): #1: (3/3);

Cooler Security

Y or N

Y or N

1. Custody Seals Present: ☒ ☐

3. COC Present: ☒ ☐

2. Custody Seals Intact: ☒ ☐

4. Smpl Dates/Time OK: ☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐

2. Cooler temp verification:

3. Cooler media:

Ice (Bag)

Quality Control Preservation

Y or N

N/A

WTB

STB

1. Trip Blank present / cooler: ☐ ☐ ☒ ☐ ☐

2. Trip Blank listed on COC: ☐ ☐ ☒

3. Samples preserved properly: ☒ ☐

4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐

2. Container labeling complete: ☒ ☐

3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐

2. All containers accounted for: ☒ ☐

3. Condition of sample:

Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear: ☒ ☐

2. Bottles received for unspecified tests: ☐ ☒

3. Sufficient volume recvd for analysis: ☒ ☐

4. Compositing instructions clear: ☐ ☐ ☒

5. Filtering instructions clear: ☐ ☐ ☒

Comments matrix is water.

Problem Resolution

Page 2 of 3

Accutest Job Number: TD1123

CSR: _____

Response Date: _____

Response:

4.1

4

TD1123: Chain of Custody
Page 4 of 5

Sample Receipt Log

Page 3 of 3

Job #: TD1123 Date / Time Received: 3/28/2017 Initials: BG
 Client: GULF CHEMICAL & METALLURGICAL

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD1123-1	1000ml	1	3A	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	1000ml	2	3A	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	1000ml	3	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	500ml	4	SUB	HNO3	pH < 2	IR-5	3	0	3
1	TD1123-1	LAG	5	4GG	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	LAG	6	4GG	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	LAG	7	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	LAG	8	SUB	N/P	Note #2 - Preservative check not applicable.	IR-5	3	0	3
1	TD1123-1	500ml	9	1P	H2SO4	pH < 2	IR-5	3	0	3
1	TD1123-1	250ml	10	1P	NaOH+ZnAc	pH > 12	IR-5	3	0	3
1	TD1123-1	40ml	11	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3	0	3
1	TD1123-1	40ml	12	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3	0	3
1	TD1123-1	40ml	13	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-5	3	0	3

TD1123: Chain of Custody

Page 5 of 5

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: TD1123**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2599-MB	E0058653.D	1	03/31/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples:**Method:** EPA 624

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.30	ug/l	
75-25-2	Bromoform	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.33	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.75	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	1.2	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.3	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.49	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
100-42-5	Styrene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.30	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.65	ug/l	

Method Blank Summary

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2599-MB	E0058653.D	1	03/31/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples: Method: EPA 624

TD1123-1

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 72-122%
17060-07-0	1,2-Dichloroethane-D4	106% 68-124%
2037-26-5	Toluene-D8	101% 80-119%
460-00-4	4-Bromofluorobenzene	102% 72-126%

Blank Spike Summary

Page 1 of 2

Job Number: TD1123**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2599-BS	E0058651.D	1	03/31/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples:**Method:** EPA 624

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	159	127	46-129
71-43-2	Benzene	25	21.8	87	68-119
75-27-4	Bromodichloromethane	25	22.1	88	72-118
75-25-2	Bromoform	25	19.2	77	54-123
108-90-7	Chlorobenzene	25	21.5	86	74-120
75-00-3	Chloroethane	25	23.5	94	61-132
67-66-3	Chloroform	25	21.2	85	73-122
75-15-0	Carbon disulfide	25	22.9	92	55-140
56-23-5	Carbon tetrachloride	25	22.6	90	68-133
75-34-3	1,1-Dichloroethane	25	23.4	94	72-121
75-35-4	1,1-Dichloroethylene	25	23.6	94	67-140
107-06-2	1,2-Dichloroethane	25	22.0	88	68-121
78-87-5	1,2-Dichloropropane	25	22.2	89	72-116
124-48-1	Dibromochloromethane	25	20.4	82	68-119
156-59-2	cis-1,2-Dichloroethylene	25	22.1	88	72-117
10061-01-5	cis-1,3-Dichloropropene	25	19.3	77	71-118
156-60-5	trans-1,2-Dichloroethylene	25	25.8	103	68-124
10061-02-6	trans-1,3-Dichloropropene	25	19.9	80	72-127
100-41-4	Ethylbenzene	25	23.1	92	71-117
591-78-6	2-Hexanone	125	124	99	49-124
108-10-1	4-Methyl-2-pentanone	125	122	98	54-122
74-83-9	Methyl bromide	25	24.1	96	53-138
74-87-3	Methyl chloride	25	22.7	91	50-145
75-09-2	Methylene chloride	25	21.7	87	60-125
78-93-3	Methyl ethyl ketone	125	134	107	51-129
100-42-5	Styrene	25	25.2	101	74-119
71-55-6	1,1,1-Trichloroethane	25	22.4	90	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	21.0	84	62-121
79-00-5	1,1,2-Trichloroethane	25	21.9	88	70-119
127-18-4	Tetrachloroethylene	25	21.4	86	72-132
108-88-3	Toluene	25	21.3	85	73-119
79-01-6	Trichloroethylene	25	22.7	91	73-121
75-01-4	Vinyl chloride	25	25.7	103	54-126
1330-20-7	Xylene (total)	75	72.1	96	74-119

* = Outside of Control Limits.

Blank Spike Summary

Page 2 of 2

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE2599-BS	E0058651.D	1	03/31/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples:

Method: EPA 624

TD1123-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	72-122%
17060-07-0	1,2-Dichloroethane-D4	102%	68-124%
2037-26-5	Toluene-D8	101%	80-119%
460-00-4	4-Bromofluorobenzene	102%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1057-1MS	E0058659.D	5000	04/01/17	ZQ	n/a	n/a	VE2599
TD1057-1MSD	E0058660.D	5000	04/01/17	ZQ	n/a	n/a	VE2599
TD1057-1 ^a	E0058655.D	5000	04/01/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples:

Method: EPA 624

TD1123-1

CAS No.	Compound	TD1057-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		625000	777000	124	625000	763000	122	46-129/25
71-43-2	Benzene	1600	J	125000	121000	96	125000	119000	94	68-119/12
75-27-4	Bromodichloromethane	ND		125000	113000	90	125000	107000	86	72-118/16
75-25-2	Bromoform	ND		125000	89500	72	125000	83800	67	54-123/17
108-90-7	Chlorobenzene	ND		125000	117000	94	125000	116000	93	74-120/12
75-00-3	Chloroethane	ND		125000	153000	122	125000	148000	118	61-132/16
67-66-3	Chloroform	ND		125000	117000	94	125000	115000	92	73-122/13
75-15-0	Carbon disulfide	ND		125000	126000	101	125000	125000	100	55-140/24
56-23-5	Carbon tetrachloride	ND		125000	128000	102	125000	125000	100	68-133/20
75-34-3	1,1-Dichloroethane	ND		125000	129000	103	125000	128000	102	72-121/14
75-35-4	1,1-Dichloroethylene	ND		125000	135000	108	125000	135000	108	67-140/18
107-06-2	1,2-Dichloroethane	ND		125000	120000	96	125000	116000	93	68-121/12
78-87-5	1,2-Dichloropropane	ND		125000	122000	98	125000	120000	96	72-116/12
124-48-1	Dibromochloromethane	ND		125000	96600	77	125000	89500	72	68-119/15
156-59-2	cis-1,2-Dichloroethylene	ND		125000	123000	98	125000	122000	98	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		125000	101000	81	125000	98800	79	71-118/18
156-60-5	trans-1,2-Dichloroethylene	ND		125000	144000	115	125000	142000	114	68-124/15
10061-02-6	trans-1,3-Dichloropropene	ND		125000	102000	82	125000	100000	80	72-127/17
100-41-4	Ethylbenzene	ND		125000	128000	102	125000	126000	101	71-117/12
591-78-6	2-Hexanone	ND		625000	635000	102	625000	621000	99	49-124/21
108-10-1	4-Methyl-2-pentanone	ND		625000	625000	100	625000	611000	98	54-122/20
74-83-9	Methyl bromide	ND		125000	156000	125	125000	154000	123	53-138/16
74-87-3	Methyl chloride	ND		125000	147000	118	125000	147000	118	50-145/17
75-09-2	Methylene chloride	ND		125000	113000	90	125000	113000	90	60-125/16
78-93-3	Methyl ethyl ketone	ND		625000	674000	108	625000	652000	104	51-129/22
100-42-5	Styrene	ND		125000	137000	110	125000	135000	108	74-119/19
71-55-6	1,1,1-Trichloroethane	ND		125000	125000	100	125000	124000	99	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		125000	2490	2*	125000	2630	2*	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		125000	114000	91	125000	111000	89	70-119/13
127-18-4	Tetrachloroethylene	ND		125000	212000	170*	125000	215000	172*	72-132/14
108-88-3	Toluene	ND		125000	117000	94	125000	116000	93	73-119/13
79-01-6	Trichloroethylene	ND		125000	218000	174*	125000	215000	172*	73-121/13
75-01-4	Vinyl chloride	ND		125000	159000	127*	125000	158000	126	54-126/17
1330-20-7	Xylene (total)	ND		375000	395000	105	375000	391000	104	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: TD1123

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1057-1MS	E0058659.D	5000	04/01/17	ZQ	n/a	n/a	VE2599
TD1057-1MSD	E0058660.D	5000	04/01/17	ZQ	n/a	n/a	VE2599
TD1057-1 ^a	E0058655.D	5000	04/01/17	ZQ	n/a	n/a	VE2599

The QC reported here applies to the following samples:

Method: EPA 624

TD1123-1

CAS No.	Surrogate Recoveries	MS	MSD	TD1057-1	Limits
1868-53-7	Dibromofluoromethane	101%	100%		72-122%
17060-07-0	1,2-Dichloroethane-D4	102%	101%		68-124%
2037-26-5	Toluene-D8	100%	100%		80-119%
460-00-4	4-Bromofluorobenzene	102%	103%		72-126%

(a) Sample used for QC purposes only.

* = Outside of Control Limits.



GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Page 1 of 3

Job Number: TD1123

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-MB	P47954A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples:

Method: EPA 625

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	1.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.4	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.8	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	3.8	ug/l	
95-48-7	2-Methylphenol	ND	5.0	1.4	ug/l	
	3&4-Methylphenol	ND	5.0	1.5	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.8	ug/l	
100-02-7	4-Nitrophenol	ND	25	13	ug/l	
87-86-5	Pentachlorophenol	ND	25	3.2	ug/l	
108-95-2	Phenol	ND	5.0	1.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.5	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.7	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.7	ug/l	
120-12-7	Anthracene	ND	5.0	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.8	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.8	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.6	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.9	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	1.7	ug/l	
86-74-8	Carbazole	ND	5.0	1.9	ug/l	
218-01-9	Chrysene	ND	5.0	1.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.9	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.6	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.6	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.8	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.8	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.6	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-MB	P47954A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples:

Method: EPA 625

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.6	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.1	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.9	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.1	ug/l	
86-73-7	Fluorene	ND	5.0	1.8	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.6	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.7	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.4	ug/l	
78-59-1	Isophorone	ND	5.0	1.8	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.6	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.9	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.6	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.5	ug/l	
91-20-3	Naphthalene	ND	5.0	1.8	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.8	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.9	ug/l	
129-00-0	Pyrene	ND	5.0	1.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	55% 10-66%
4165-62-2	Phenol-d5	42% 10-63%

Method Blank Summary

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-MB	P47954A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples: Method: EPA 625

TD1123-1

CAS No.	Surrogate Recoveries	Limits
118-79-6	2,4,6-Tribromophenol	79% 32-128%
4165-60-0	Nitrobenzene-d5	89% 29-115%
321-60-8	2-Fluorobiphenyl	85% 34-113%
1718-51-0	Terphenyl-d14	93% 23-138%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: TD1123

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-BS	P47955A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314
OP43183-BSD ^a	P47956A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples:

Method: EPA 625

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	50	24.4	49	26.4	53	8	10-91/30
95-57-8	2-Chlorophenol	50	29.5	59	30.7	61	4	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	35.2	70	36.9	74	5	30-110/30
120-83-2	2,4-Dichlorophenol	50	36.7	73	38.2	76	4	41-107/30
105-67-9	2,4-Dimethylphenol	50	34.9	70	35.7	71	2	39-107/30
51-28-5	2,4-Dinitrophenol	50	24.4	49	30.0	60	21	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	34.1	68	37.0	74	8	40-121/30
95-48-7	2-Methylphenol	50	24.7	49	26.3	53	6	33-93/30
	3&4-Methylphenol	50	22.5	45	24.4	49	8	28-99/30
88-75-5	2-Nitrophenol	50	36.2	72	36.9	74	2	38-107/30
100-02-7	4-Nitrophenol	50	12	24	13	25	3	10-78/30
87-86-5	Pentachlorophenol	50	33.7	67	35.4	71	5	28-116/30
108-95-2	Phenol	50	10.7	21	11.3	23	5	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	38.3	77	39.1	78	2	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	40.1	80	39.4	79	2	44-112/30
83-32-9	Acenaphthene	50	37.8	76	36.9	74	2	44-106/30
208-96-8	Acenaphthylene	50	40.5	81	39.6	79	2	46-111/30
120-12-7	Anthracene	50	40.4	81	38.9	78	4	53-114/30
56-55-3	Benzo(a)anthracene	50	40.1	80	39.2	78	2	57-113/30
50-32-8	Benzo(a)pyrene	50	42.5	85	40.9	82	4	50-109/30
205-99-2	Benzo(b)fluoranthene	50	43.5	87	42.2	84	3	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	43.4	87	42.2	84	3	43-127/30
207-08-9	Benzo(k)fluoranthene	50	46.5	93	44.9	90	4	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	42.3	85	40.6	81	4	48-113/30
85-68-7	Butyl benzyl phthalate	50	38.9	78	42.0	84	8	42-120/30
100-51-6	Benzyl Alcohol	50	26.3	53	28.4	57	8	31-97/30
91-58-7	2-Chloronaphthalene	50	39.8	80	37.6	75	6	35-123/30
106-47-8	4-Chloroaniline	50	34.7	69	36.7	73	6	36-104/30
86-74-8	Carbazole	50	37.9	76	37.1	74	2	50-113/30
218-01-9	Chrysene	50	41.1	82	39.8	80	3	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	38.6	77	39.3	79	2	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	37.3	75	37.7	75	1	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	34.5	69	35.6	71	3	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	38.8	78	39.5	79	2	45-112/30
95-50-1	1,2-Dichlorobenzene	50	33.4	67	33.7	67	1	37-100/30
541-73-1	1,3-Dichlorobenzene	50	32.6	65	32.7	65	0	34-99/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: TD1123
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-BS	P47955A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314
OP43183-BSD ^a	P47956A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples:

Method: EPA 625

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	50	33.2	66	33.3	67	0	36-99/30
121-14-2	2,4-Dinitrotoluene	50	40.1	80	43.1	86	7	52-115/30
606-20-2	2,6-Dinitrotoluene	50	42.3	85	43.6	87	3	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	36.6	73	32.5	65	12	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	41.7	83	41.2	82	1	47-125/30
132-64-9	Dibenzofuran	50	39.0	78	38.6	77	1	45-108/30
84-74-2	Di-n-butyl phthalate	50	40.0	80	42.1	84	5	47-118/30
117-84-0	Di-n-octyl phthalate	50	46.0	92	45.8	92	0	41-124/30
84-66-2	Diethyl phthalate	50	40.1	80	43.0	86	7	38-121/30
131-11-3	Dimethyl phthalate	50	41.3	83	42.5	85	3	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.7	79	38.9	78	2	50-123/30
206-44-0	Fluoranthene	50	36.4	73	35.5	71	3	50-118/30
86-73-7	Fluorene	50	38.7	77	38.3	77	1	47-113/30
118-74-1	Hexachlorobenzene	50	43.4	87	41.8	84	4	49-114/30
87-68-3	Hexachlorobutadiene	50	66.6	133*	65.6	131*	2	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	14.9	30	13.8	28	8	10-97/30
67-72-1	Hexachloroethane	50	31.2	62	32.1	64	3	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.4	79	39.0	78	1	45-127/30
78-59-1	Isophorone	50	40.8	82	41.5	83	2	40-103/30
91-57-6	2-Methylnaphthalene	50	33.3	67	33.9	68	2	36-104/30
88-74-4	2-Nitroaniline	50	39.9	80	40.7	81	2	41-117/30
99-09-2	3-Nitroaniline	50	34.2	68	36.5	73	7	37-117/30
100-01-6	4-Nitroaniline	50	31.4	63	34.4	69	9	47-121/30
91-20-3	Naphthalene	50	34.3	69	34.0	68	1	40-104/30
98-95-3	Nitrobenzene	50	38.7	77	38.4	77	1	40-103/30
621-64-7	N-Nitroso-di-n-propylamine	50	40.4	81	43.0	86	6	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	79.7	80	75.6	76	5	39-109/30
85-01-8	Phenanthrene	50	40.9	82	39.0	78	5	53-114/30
129-00-0	Pyrene	50	40.6	81	47.5	95	16	51-117/30
120-82-1	1,2,4-Trichlorobenzene	50	32.4	65	31.5	63	3	32-103/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	35%	35%	10-66%
4165-62-2	Phenol-d5	23%	24%	10-63%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: TD1123

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43183-BS	P47955A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314
OP43183-BSD ^a	P47956A.D	1	03/29/17	SC	03/29/17	OP43183	EP2314

The QC reported here applies to the following samples:

Method: EPA 625

TD1123-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
118-79-6	2,4,6-Tribromophenol	80%	79%	32-128%
4165-60-0	Nitrobenzene-d5	78%	77%	29-115%
321-60-8	2-Fluorobiphenyl	81%	77%	34-113%
1718-51-0	Terphenyl-d14	84%	98%	23-138%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
BOD, 5 Day	GP41397/GN80593	2.0	0.0	mg/l	198	196	99.0	82-114%
Nitrogen, Ammonia	GP41419/GN80626	0.10	0.0	mg/l	2	1.98	99.0	90-110%
Nitrogen, Nitrate	GP41406/GN80590	0.50	0.0	mg/l	10	9.89	98.9	90-110%
Nitrogen, Nitrite	GP41406/GN80590	0.50	0.0	mg/l	10	10.3	103.0	90-110%
Phosphorus, Total	GP41463/GN80687	0.020	0.0	mg/l	0.4	0.42	105.0	91-108%
Sulfide	GN80716	0.20	0.0	mg/l	1600	1600	100.0	90-105%
Sulfite	GN80588	3.0	0.0	mg/l	50	50.0	100.0	97-102%

Associated Samples:

Batch GN80588: TD1123-1
Batch GN80716: TD1123-1
Batch GP41397: TD1123-1
Batch GP41406: TD1123-1
Batch GP41419: TD1123-1
Batch GP41463: TD1123-1
(*) Outside of QC limits

7.1

7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN80716	mg/l	1600	1600	0.0	

Associated Samples:
Batch GN80716: TD1123-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
BOD, 5 Day	GP41397/GN80593	TD1098-2A	mg/l	3.9	4.0	2.5	0-15%
Nitrogen, Ammonia	GP41419/GN80626	TD1137-1A	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrate	GP41406/GN80590	TD1103-1	mg/l	2.6	2.8	7.4	0-20%
Nitrogen, Nitrite	GP41406/GN80590	TD1103-1	mg/l	0.71	0.73	2.8	0-20%
Phosphorus, Total	GP41463/GN80687	LA31706-2	mg/l	0.094	0.094	0.0	0-20%
Sulfite	GN80588	TD1123-1	mg/l	0.77 U	0.0	0.0	0-10%

Associated Samples:

Batch GN80588: TD1123-1
Batch GP41397: TD1123-1
Batch GP41406: TD1123-1
Batch GP41419: TD1123-1
Batch GP41463: TD1123-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Ammonia	GP41419/GN80626	TD1137-1A	mg/l	0.0	2	2.0	100.0	90-110%
Nitrogen, Nitrate	GP41406/GN80590	TD1103-1	mg/l	2.6	10	11.9	93.0	80-120%
Nitrogen, Nitrite	GP41406/GN80590	TD1103-1	mg/l	0.71	10	10.2	94.9	80-130%
Phosphorus, Total	GP41463/GN80687	LA31706-2	mg/l	0.094	0.4	0.47	94.0	83-110%
Sulfite	GN80588	TD1123-1	mg/l	0.77 U	50	50.5	101.0	95-102%

Associated Samples:

Batch GN80588: TD1123-1

Batch GP41406: TD1123-1

Batch GP41419: TD1123-1

Batch GP41463: TD1123-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.4

7

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

Page 1 of 2

P2

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name: SGS Accutest		Project Name: Permit					
Street Address: 10165 Harwin Drive		Street:					
City State Zip: Houston TX 77036		Billing Information (if different from Report to) Company Name:					
Project Contact E-mail: electa.brown@sgs.com		Project #:					
Phone #: 713-271-4700		Client Purchase Order #:					
Sampler(s) Name(s):		Project Manager:					
Field ID / Point of Collection:		MEQ/MDI Vial #:					
Date:		Time:					
Matrix:		# of bottles:					
Number of preserved Bottles:							
HCl		HNO3					
H2SO4		H2O2					
DI Water		MEQ					
ENCORE							
LAB USE ONLY							
Turnaround Time (Business days)		Data Deliverable Information					
Approved By (SGS Accutest PM): / Date:		Commercial "A" (Level 1)					
5 Day RUSH		Commercial "B" (Level 2)					
3 Day EMERGENCY		FULLT1 (Level 3+4)					
2 Day EMERGENCY		NJ Reduced					
1 Day EMERGENCY		Commercial "C"					
[X] other Due 4/4/2017							
Emergency & Rush T/A data available VIA Lablink		Commercial "A" = Results Only					
		Commercial "B" = Results + QC Summary					
		NJ Reduced = Results + QC Summary + Partial Raw data					
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished By Sampler:		Received By:					
Date Time:		Date Time:					
Relinquished by:		Received By:					
Date Time:		Date Time:					
Custody Seal #							
Intact		Preserved where applicable					
Not Intact							
On Ice		Cooler Temp.					

TD1123: Chain of Custody

Page 1 of 4

SGS Accutest New Jersey



10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.ses.com

[illegible]

8.1

TD1123: Chain of Custody
Page 2 of 4

SGS Accutest Sample Receipt Summary

Job Number: TD1123

Client: SGS Houston

Project: Permit

Date / Time Received: 3/30/2017 10:00:00 AM

Delivery Method: FedEx

Airbill #s: 564246205834

Cooler Temps (Raw Measured) °C: Cooler 1: (1.5);

Cooler Temps (Corrected) °C: Cooler 1: (2.9);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments -1 Also rec'd Metals volume, Metals is not requested.

SM089-02
Rev. Date 12/1/16

TD1123: Chain of Custody

Page 3 of 4

Responded to by: Michelle

Response Date: 3/31

Response:

please run metals for -1 per Electa

8.1
8

GC Semi-volatiles

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD1123
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1540-MB1	XX207423.D	1	03/31/17	JR	03/31/17	OP1540	GXX5980

The QC reported here applies to the following samples: Method: EPA 608

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.17	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.15	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.14	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.13	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.17	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.14	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	106% 10-156%
877-09-8	Tetrachloro-m-xylene	110% 10-156%
2051-24-3	Decachlorobiphenyl	47% 10-143%
2051-24-3	Decachlorobiphenyl	57% 10-143%

Method Blank Summary

Job Number: TD1123
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1540-MB11	XX207425.D	1	04/01/17	JR	03/31/17	OP1540	GXX5980

The QC reported here applies to the following samples: Method: EPA 608

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.050	0.034	ug/l	
11104-28-2	Aroclor 1221	ND	0.050	0.029	ug/l	
11141-16-5	Aroclor 1232	ND	0.050	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.050	0.027	ug/l	
12672-29-6	Aroclor 1248	ND	0.050	0.025	ug/l	
11097-69-1	Aroclor 1254	ND	0.050	0.034	ug/l	
11096-82-5	Aroclor 1260	ND	0.050	0.027	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	93% 10-156%
877-09-8	Tetrachloro-m-xylene	102% 10-156%
2051-24-3	Decachlorobiphenyl	59% 10-143%
2051-24-3	Decachlorobiphenyl	64% 10-143%

Method Blank Summary

Page 1 of 1

Job Number: TD1123

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1541-MB2	6G45499.D	1	04/03/17	CP	03/31/17	OP1541	G6G1299

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0030	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0030	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0028	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0023	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0014	ug/l	
12789-03-6	Chlordane	ND	0.10	0.057	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0018	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0019	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0031	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0026	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0021	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0019	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0033	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0028	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.092	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	68% 10-156%
877-09-8	Tetrachloro-m-xylene	69% 10-156%
2051-24-3	Decachlorobiphenyl	44% 10-143%
2051-24-3	Decachlorobiphenyl	42% 10-143%

9.1.3
9

Method Blank Summary

Page 1 of 1

Job Number: TD1123

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1541-MB1	6G45508.D	1	04/03/17	CP	03/31/17	OP1541	G6G1299

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0030	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0030	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0028	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0023	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0014	ug/l	
12789-03-6	Chlordane	ND	0.10	0.057	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0018	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0019	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0031	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0026	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0021	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0019	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0033	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0028	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.092	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	83% 10-156%
877-09-8	Tetrachloro-m-xylene	87% 10-156%
2051-24-3	Decachlorobiphenyl	54% 10-143%
2051-24-3	Decachlorobiphenyl	53% 10-143%

9.1.4
9

Blank Spike Summary

Page 1 of 1

Job Number: TD1123

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1540-BS1	XX207424.D	1	03/31/17	JR	03/31/17	OP1540	GXX5980

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.1	105	42-160
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	2	1.6	80	41-158

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	107%	10-156%
877-09-8	Tetrachloro-m-xylene	119%	10-156%
2051-24-3	Decachlorobiphenyl	52%	10-143%
2051-24-3	Decachlorobiphenyl	58%	10-143%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: TD1123

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1541-BS2	6G45500.D	1	04/03/17	CP	03/31/17	OP1541	G6G1299

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.21	84	18-142
319-84-6	alpha-BHC	0.25	0.22	88	40-149
319-85-7	beta-BHC	0.25	0.20	80	41-141
319-86-8	delta-BHC	0.25	0.21	84	34-160
58-89-9	gamma-BHC (Lindane)	0.25	0.21	84	40-148
60-57-1	Dieldrin	0.25	0.22	88	41-152
72-54-8	4,4'-DDD	0.25	0.21	84	38-153
72-55-9	4,4'-DDE	0.25	0.22	88	35-146
50-29-3	4,4'-DDT	0.25	0.21	84	36-158
72-20-8	Endrin	0.25	0.23	92	45-161
1031-07-8	Endosulfan sulfate	0.25	0.20	80	41-154
7421-93-4	Endrin aldehyde	0.25	0.20	80	41-153
959-98-8	Endosulfan-I	0.25	0.21	84	38-146
33213-65-9	Endosulfan-II	0.25	0.21	84	40-149
76-44-8	Heptachlor	0.25	0.21	84	27-141
1024-57-3	Heptachlor epoxide	0.25	0.19	76	39-148
72-43-5	Methoxychlor	0.25	0.20	80	38-153

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	80%	10-156%
877-09-8	Tetrachloro-m-xylene	84%	10-156%
2051-24-3	Decachlorobiphenyl	80%	10-143%
2051-24-3	Decachlorobiphenyl	80%	10-143%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: TD1123

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1541-BS1	6G45646.D	1	04/06/17	CP	03/31/17	OP1541	G6G1302

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.26	104	18-142
319-84-6	alpha-BHC	0.25	0.27	108	40-149
319-85-7	beta-BHC	0.25	0.24	96	41-141
319-86-8	delta-BHC	0.25	0.26	104	34-160
58-89-9	gamma-BHC (Lindane)	0.25	0.26	104	40-148
60-57-1	Dieldrin	0.25	0.26	104	41-152
72-54-8	4,4'-DDD	0.25	0.25	100	38-153
72-55-9	4,4'-DDE	0.25	0.26	104	35-146
50-29-3	4,4'-DDT	0.25	0.23	92	36-158
72-20-8	Endrin	0.25	0.27	108	45-161
1031-07-8	Endosulfan sulfate	0.25	0.24	96	41-154
7421-93-4	Endrin aldehyde	0.25	0.24	96	41-153
959-98-8	Endosulfan-I	0.25	0.25	100	38-146
33213-65-9	Endosulfan-II	0.25	0.25	100	40-149
76-44-8	Heptachlor	0.25	0.25	100	27-141
1024-57-3	Heptachlor epoxide	0.25	0.24	96	39-148
72-43-5	Methoxychlor	0.25	0.21	84	38-153

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	99%	10-156%
877-09-8	Tetrachloro-m-xylene	103%	10-156%
2051-24-3	Decachlorobiphenyl	84%	10-143%
2051-24-3	Decachlorobiphenyl	79%	10-143%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: TD1123
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1540-MS	XX207430.D	1	04/01/17	JR	03/31/17	OP1540	GXX5980
OP1540-MSD	XX207431.D	1	04/01/17	JR	03/31/17	OP1540	GXX5980
JC39886-1	XX207429.D	1	04/01/17	JR	03/31/17	OP1540	GXX5980

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	JC39886-1 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	4	2.6	65	4	2.7	68	4	4	27-180/37
11104-28-2	Aroclor 1221	ND		ND			ND			nc	70-130/30
11141-16-5	Aroclor 1232	ND		ND			ND			nc	70-130/30
53469-21-9	Aroclor 1242	ND		ND			ND			nc	70-130/30
12672-29-6	Aroclor 1248	ND		ND			ND			nc	70-130/30
11097-69-1	Aroclor 1254	ND		ND			ND			nc	70-130/2
11096-82-5	Aroclor 1260	ND	4	0.92	23	4	0.96	24	4	4	10-177/41

CAS No.	Surrogate Recoveries	MS	MSD	JC39886-1	Limits
877-09-8	Tetrachloro-m-xylene	57%	72%	39%	10-156%
877-09-8	Tetrachloro-m-xylene	68%	75%	43%	10-156%
2051-24-3	Decachlorobiphenyl	25%	24%	50%	10-143%
2051-24-3	Decachlorobiphenyl	30%	27%	16%	10-143%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: TD1123
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1541-MS	6G45593.D	1	04/05/17	CP	03/31/17	OP1541	G6G1301
OP1541-MSD	6G45594.D	1	04/05/17	CP	03/31/17	OP1541	G6G1301
JC39811-1	6G45510.D	1	04/03/17	CP	03/31/17	OP1541	G6G1299

The QC reported here applies to the following samples:

Method: EPA 608

TD1123-1

CAS No.	Compound	JC39811-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND	0.5	0.17	34	0.5	0.18	36	12	22-159/42
319-84-6	alpha-BHC	ND	0.5	0.44	88	0.5	0.91	182* a	44* b	34-168/37
319-85-7	beta-BHC	ND	0.5	0.47	94	0.5	0.49	98	31	31-165/42
319-86-8	delta-BHC	ND	0.5	0.14	28* a	0.5	0.16	32* a	13	42-170/41
58-89-9	gamma-BHC (Lindane)	ND	0.5	0.22	44	0.5	0.26	52	31	34-169/43
12789-03-6	Chlordane	ND		ND			ND		nc	50-150/30
60-57-1	Dieldrin	ND	0.5	0.22	44	0.5	0.25	50	13	32-170/41
72-54-8	4,4'-DDD	ND	0.5	0.25	50	0.5	0.29	58	15	37-164/37
72-55-9	4,4'-DDE	ND	0.5	0.089	18* a	0.5	0.093	19* a	4	35-159/40
50-29-3	4,4'-DDT	ND	0.5	0.11	22* a	0.5	0.10	20* a	10	24-175/35
72-20-8	Endrin	ND	0.5	0.33	66	0.5	0.34	68	3	42-177/38
1031-07-8	Endosulfan sulfate	ND	0.5	0.15	30* a	0.5	0.26	52	54* b	35-167/43
7421-93-4	Endrin aldehyde	ND	0.5	0.067	13* a	0.5	0.13	26	64* b	26-169/48
959-98-8	Endosulfan-I	ND	0.5	0.23	46	0.5	0.26	52	12	27-167/40
33213-65-9	Endosulfan-II	ND	0.5	0.065	13* a	0.5	0.062	12* a	5	30-165/39
76-44-8	Heptachlor	0.031	0.5	0.13	20* a	0.5	0.15	24* a	14	29-158/39
1024-57-3	Heptachlor epoxide	ND	0.5	0.11	22* a	0.5	0.12	24* a	9	38-160/40
72-43-5	Methoxychlor	ND	0.5	0.21	42	0.5	0.16	32* a	27	33-163/43
8001-35-2	Toxaphene	ND		ND			ND		nc	50-150/30

CAS No.	Surrogate Recoveries	MS	MSD	JC39811-1	Limits
877-09-8	Tetrachloro-m-xylene	706% * a	708% * a	440% * a	10-156%
877-09-8	Tetrachloro-m-xylene	105%	49%	363% * a	10-156%
2051-24-3	Decachlorobiphenyl	4% * a	5% * a	5% * c	10-143%
2051-24-3	Decachlorobiphenyl	8% * a	15%	8% * c	10-143%

(a) Outside control limits due to matrix interference.

(b) Analytical precision exceeds in-house control limits.

(c) Outside control limits due to matrix interference. There's no sample left for re-extraction.

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99643
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/02/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.23	1.3		
Antimony	2.0	.22	.26		
Arsenic	1.0	.017	.034	0.012	<1.0
Barium	1.0	.0085	.028	0.016	<1.0
Beryllium	0.50	.0022	.013		
Boron	50	2.3			
Cadmium	0.50	.0032	.12	0.00052	<0.50
Calcium	250	1.4	3.7		
Chromium	4.0	.012	.1	-0.040	<4.0
Cobalt	0.50	.0018	.018		
Copper	4.0	.035	.14		
Iron	50	.19	2		
Lead	0.50	.0079	.011	0.018	<0.50
Magnesium	250	.21	3.6		
Manganese	1.0	.0078	.095		
Molybdenum	1.0	.023	.23		
Nickel	4.0	.018	.11		
Potassium	250	.77	8.8		
Selenium	1.0	.012	.12	0.0074	<1.0
Silver	2.0	.0058	.041	0.0072	<2.0
Sodium	250	.89	2.5		
Strontium	5.0	.006	.015		
Thallium	0.50	.002	.013		
Tin	5.0	.044	.38		
Titanium	1.0	.031	.56		
Vanadium	4.0	.03	.2		
Zinc	10	.067	1.2		

Associated samples MP99643: TD1123-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99643
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/02/17

Metal	JC40067-1 Original MS	Spikelot MPX200.8 % Rec	QC Limits
Aluminum	anr		
Antimony	anr		
Arsenic	0.12 99.4	100 99.3	70-130
Barium	58.7 158	100 99.3	70-130
Beryllium	anr		
Boron			
Cadmium	0.070 97.7	100 97.6	70-130
Calcium	anr		
Chromium	0.22 99.1	100 98.9	70-130
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	0.15 99.6	100 99.5	70-130
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	0.51 198	200 98.7	70-130
Silver	0.047 82.3	76.5 107.5	70-130
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

Associated samples MP99643: TD1123-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99643
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/02/17

Metal	JC40067-1 Original	MSD	Spikelot MPX200.8	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.12	98.8	100	98.7	0.6	10
Barium	58.7	158	100	99.3	0.0	20
Beryllium	anr					
Boron						
Cadmium	0.070	97.6	100	97.5	0.1	10
Calcium	anr					
Chromium	0.22	99.3	100	99.1	0.2	10
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	0.15	99.7	100	99.6	0.1	10
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	0.51	198	200	98.7	0.0	10
Silver	0.047	80.6	76.5	105.3	2.1	10
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP99643: TD1123-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99643
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/02/17

Metal	BSP Result	Spikelot MPX200.8	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	100	100	100.0	85-115
Barium	99.7	100	99.7	85-115
Beryllium	anr			
Boron				
Cadmium	100	100	100.0	85-115
Calcium	anr			
Chromium	100	100	100.0	85-115
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	99.6	100	99.6	85-115
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	210	200	105.0	85-115
Silver	81.3	76.5	106.3	85-115
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP99643: TD1123-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99659
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 04/03/17

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.012	.055	0.088	<0.20

Associated samples MP99659: TD1123-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1123
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99659
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/03/17

Metal	JC40036-1 Original MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.069	2.1	2	101.6 70-130

Associated samples MP99659: TD1123-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1123
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99659
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/03/17

Metal	JC40036-1 Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.069	1.9	2	91.6	10.0

Associated samples MP99659: TD1123-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD1123
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99659
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/03/17

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.1	2	105.0	85-115

Associated samples MP99659: TD1123-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Lafayette)

Includes the following where applicable:

- Chain of Custody

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sps.com

FED-EX Tracking #	Bottle Order Control #									
SGS Account Quote #	SGS Account Job									
TD1123										
Requested Analysis (see TEST CODE sheet)										Matrix Codes
MBAS										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SG - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solids WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
	X								/	LAB USE ONLY
Comments / Special Instructions										
Category A										
Category B										
MB	(14) LAF									
Raw data										
including courier delivery.										
Date Time: 3/29/17					Received By: [Signature]					
Date Time:					Received By: 4					
Infect	Preserved where applicable				On Ice			Cooler Temp		

TD1123: Chain of Custody
Page 1 of 3
SGS Accutest Lafayette

Date / Time: 3/28/2017 4:09:36 PM
CSR: TRAMESHB
Job #: TD1123
Client Project: Permit
Deliverable: COMMB
TAT: Due 4/4/2017

Sub Lab: Accutest Gulf Coast Louisiana
Address: 500 Ambassador Caffery Prkway
City: Scott
State: LA Zip: 70583
Contact: Sample Receiving
Phone: 800-304-5227

SGS Accutest Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
TD1123-1	PERMIT RENEWEL	MBAS	1P_3A_4GG.SUB_VR		3/28/2017	10:00:00 AM	

Comments:

Sample Management Receipt: _____

Date: _____

① (Round) (NP)
(14)

TD1123: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Job Number: TD1123

Client: SGS (TX)

Project: PERMIT

Date / Time Received: 3/29/2017 10:20:00 AM

Delivery Method: Accutest Courier

Airbill #s: _____

Cooler Temps (Initial/Adjusted): #1: (1.8/1.8):

Cooler Security

	<u>Y or N</u>			<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Thermometer ID:	_____ ; _____	
3. Cooler media:	<u>Ice (direct contact)</u>	
4. No. Coolers:	<u>1</u>	

Quality Control Preservation

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>		

Sample Integrity - Instructions

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

TD1123: Chain of Custody

Page 3 of 3

General Chemistry

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Surfactants, MBAS as LAS	GN10246	0.10	0.0	mg/l	.75	0.70	93.0	80-120%

Associated Samples:
Batch GN10246: TD1123-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Surfactants, MBAS as LAS	GN10246	mg/l	.75	0.70	0.7	

Associated Samples:
Batch GN10246: TD1123-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1123
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Surfactants, MBAS as LAS	GN10246	LA31814-1	mg/l	1.7	1.7	0.3	0-20%

Associated Samples:
Batch GN10246: TD1123-1
(*) Outside of QC limits

Technical Report for

Gulf Chemical & Metallurgical Corp.

Permit

SGS Accutest Job Number: TD1443

Sampling Date: 04/04/17


Report to:

Gulf Chemical & Metallurgical Corp.
P.O. Box 2290
Freeport, TX 77542
bobby.provence@eramet-gulf.com; robert.marsh@eramet-gulf.com
ATTN: Robert Marsh

Total number of pages in report: 66



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.


Richard Rodriguez
Laboratory Director

Client Service contact: Electa Brown 713-271-4700

Certifications: TX (T104704220-17-26) AR (14-016-0) AZ (AZ0769) FL (E87628)
KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-172) VA (7654)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: TD1443-1: PERMIT RENEWEL	6
Section 4: Misc. Forms	15
4.1: Chain of Custody	16
Section 5: GC/MS Volatiles - QC Data Summaries	20
5.1: Method Blank Summary	21
5.2: Blank Spike Summary	23
5.3: Matrix Spike/Matrix Spike Duplicate Summary	25
Section 6: GC/MS Semi-volatiles - QC Data Summaries	27
6.1: Method Blank Summary	28
6.2: Blank Spike/Blank Spike Duplicate Summary	31
Section 7: General Chemistry - QC Data Summaries	34
7.1: Method Blank and Spike Results Summary	35
7.2: Blank Spike Duplicate Results Summary	36
7.3: Duplicate Results Summary	37
7.4: Matrix Spike Results Summary	38
Section 8: Misc. Forms (SGS Accutest New Jersey)	39
8.1: Chain of Custody	40
Section 9: GC Semi-volatiles - QC Data (SGS Accutest New Jersey)	45
9.1: Method Blank Summary	46
9.2: Blank Spike/Blank Spike Duplicate Summary	48
Section 10: Metals Analysis - QC Data (SGS Accutest New Jersey)	50
10.1: Prep QC MP99717: As,Ba,Cd,Cr,Pb,Se,Ag	51
10.2: Prep QC MP99751: Hg	55
Section 11: Misc. Forms (SGS Accutest Lafayette)	59
11.1: Chain of Custody	60
Section 12: General Chemistry - QC Data (SGS Accutest Lafayette)	63
12.1: Method Blank and Spike Results Summary	64
12.2: Blank Spike Duplicate Results Summary	65
12.3: Duplicate Results Summary	66



Sample Summary

Gulf Chemical & Metallurgical Corp.
Permit

Job No: TD1443

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
TD1443-1	04/04/17	10:05	04/04/17	AQ	Water	PERMIT RENEWEL

Summary of Hits

Page 1 of 1

Job Number: TD1443
Account: Gulf Chemical & Metallurgical Corp.
Project: Permit
Collected: 04/04/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

TD1443-1 PERMIT RENEWEL

Acetone	0.172	0.050	0.010	mg/l	EPA 624
Chloroform	0.00063 J	0.0010	0.00030	mg/l	EPA 624
2-Hexanone	0.0134	0.010	0.0012	mg/l	EPA 624
4-Methyl-2-pentanone	0.0111	0.010	0.0023	mg/l	EPA 624
Methyl chloride	0.00077 J	0.0010	0.00030	mg/l	EPA 624
Methyl ethyl ketone	0.0776	0.010	0.0026	mg/l	EPA 624
Arsenic ^a	1.05	0.50	0.017	mg/l	EPA 200.8
Barium ^a	0.0151 B	0.50	0.014	mg/l	EPA 200.8
Selenium ^a	0.681	0.50	0.058	mg/l	EPA 200.8
BOD, 5 Day	16.4	12	6.0	mg/l	SM 5210B-2000
Nitrogen, Ammonia	130	5.0	1.0	mg/l	EPA 350.1
Nitrogen, Nitrite ^b	48.9	25	14	mg/l	EPA 300
Phosphorus, Total	1.7	0.10	0.050	mg/l	SM 4500PE-2011
Surfactants, MBAS as LAS ^c	0.25	0.10	0.080	mg/l	SM5540 C-11

- (a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.
- (b) Elevated reporting limit due to matrix interference.
- (c) Analysis performed at SGS Accutest, Lafayette, LA.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	04/04/17
Lab Sample ID:	TD1443-1	Date Received:	04/04/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 624		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0272135.D	1	04/07/17	ZQ	n/a	n/a	VG2272
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.172	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00030	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00030	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00030	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00030	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00033	mg/l	
67-66-3	Chloroform	0.00063	0.0010	0.00030	mg/l	J
75-15-0	Carbon disulfide	ND	0.0050	0.00075	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00054	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00030	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00030	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00030	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00030	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00030	mg/l	
591-78-6	2-Hexanone	0.0134	0.010	0.0012	mg/l	
108-10-1	4-Methyl-2-pentanone	0.0111	0.010	0.0023	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00049	mg/l	
74-87-3	Methyl chloride	0.00077	0.0010	0.00030	mg/l	J
75-09-2	Methylene chloride	ND	0.0050	0.0013	mg/l	
78-93-3	Methyl ethyl ketone	0.0776	0.010	0.0026	mg/l	
100-42-5	Styrene	ND	0.0010	0.00030	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00030	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00030	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00030	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00030	mg/l	
108-88-3	Toluene	ND	0.0010	0.00030	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1443-1
Matrix: AQ - Water
Method: EPA 624
Project: Permit

Date Sampled: 04/04/17
Date Received: 04/04/17
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	0.0010	0.00030	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00065	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	99%		80-119%
460-00-4	4-Bromofluorobenzene	100%		72-126%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	04/04/17
Lab Sample ID:	TD1443-1	Date Received:	04/04/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Permit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P48149.D	1	04/11/17	SC	04/10/17	OP43290	EP2322
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.021	0.0018	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0015	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0018	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0021	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0011	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.0013	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0040	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.0015	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0019	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.013	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.0034	mg/l	
108-95-2	Phenol	ND	0.0053	0.0013	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0020	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0016	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0018	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0020	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0019	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0021	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.0023	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0021	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0021	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0020	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0019	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0017	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0020	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0018	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0020	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0018	mg/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0019	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0016	mg/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1443-1
Matrix: AQ - Water
Method: EPA 625 EPA 625
Project: Permit

Date Sampled: 04/04/17
Date Received: 04/04/17
Percent Solids: n/a

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0017	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0019	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0019	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0022	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0019	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0021	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0022	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0019	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0021	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0027	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0019	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0021	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0053	0.0020	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0022	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0019	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0021	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0020	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0017	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0018	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0025	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0019	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0017	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0020	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0017	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0026	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0018	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0053	0.0020	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0019	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0020	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0019	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0019	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		10-66%
4165-62-2	Phenol-d5	27%		10-63%
118-79-6	2,4,6-Tribromophenol	98%		32-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1443-1
Matrix: AQ - Water
Method: EPA 625 EPA 625
Project: Permit

Date Sampled: 04/04/17
Date Received: 04/04/17
Percent Solids: n/a

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		29-115%
321-60-8	2-Fluorobiphenyl	60%		34-113%
1718-51-0	Terphenyl-d14	83%		23-138%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PERMIT RENEWEL	Date Sampled:	04/04/17
Lab Sample ID:	TD1443-1	Date Received:	04/04/17
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	EPA 608 EPA 608		
Project:	Permit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	1G133859.D	1	04/12/17	ANJ	04/10/17	N:OP1759	N:G1G4278
Run #2 ^a	XX207909.D	1	04/11/17	ANJ	04/10/17	N:OP1758	N:GXX5989
Run #3 ^b	6G45799.D	1	04/11/17	ANJ	04/10/17	N:OP1759	N:G6G1306

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2	1000 ml	5.0 ml
Run #3	1000 ml	5.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.0000100	0.0000030	mg/l	
319-84-6	alpha-BHC	ND	0.0000100	0.0000030	mg/l	
319-85-7	beta-BHC	ND	0.0000100	0.0000028	mg/l	
319-86-8	delta-BHC	ND	0.0000100	0.0000023	mg/l	
58-89-9	gamma-BHC (Lindane)	ND	0.0000100	0.0000014	mg/l	
12789-03-6	Chlordane	ND	0.00010	0.000057	mg/l	
60-57-1	Dieldrin	ND	0.0000100	0.0000018	mg/l	
72-54-8	4,4'-DDD	ND	0.0000100	0.0000019	mg/l	
72-55-9	4,4'-DDE	ND	0.0000100	0.0000033	mg/l	
50-29-3	4,4'-DDT	ND	0.0000100	0.0000025	mg/l	
72-20-8	Endrin	ND	0.0000100	0.0000025	mg/l	
1031-07-8	Endosulfan sulfate	ND	0.0000100	0.0000026	mg/l	
7421-93-4	Endrin aldehyde	ND	0.0000100	0.0000026	mg/l	
959-98-8	Endosulfan-I	ND	0.0000100	0.0000025	mg/l	
33213-65-9	Endosulfan-II	ND	0.0000100	0.0000023	mg/l	
76-44-8	Heptachlor	ND	0.0000100	0.0000019	mg/l	
1024-57-3	Heptachlor epoxide	ND	0.0000100	0.0000033	mg/l	
72-43-5	Methoxychlor	ND	0.0000100	0.0000028	mg/l	
8001-35-2	Toxaphene	ND	0.00013	0.000092	mg/l	
12674-11-2	Aroclor 1016	ND ^c	0.00025	0.00017	mg/l	
11104-28-2	Aroclor 1221	ND ^c	0.00025	0.00015	mg/l	
11141-16-5	Aroclor 1232	ND ^c	0.00025	0.00010	mg/l	
53469-21-9	Aroclor 1242	ND ^c	0.00025	0.00014	mg/l	
12672-29-6	Aroclor 1248	ND ^c	0.00025	0.00013	mg/l	
11097-69-1	Aroclor 1254	ND ^c	0.00025	0.00017	mg/l	
11096-82-5	Aroclor 1260	ND ^c	0.00025	0.00014	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
877-09-8	Tetrachloro-m-xylene	117%	158% ^d	95%	10-156%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL
Lab Sample ID: TD1443-1
Matrix: AQ - Water
Method: EPA 608 EPA 608
Project: Permit

Date Sampled: 04/04/17
Date Received: 04/04/17
Percent Solids: n/a

PCB List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
877-09-8	Tetrachloro-m-xylene	81%	81%	99%	10-156%
2051-24-3	Decachlorobiphenyl	61%	41%	57%	10-143%
2051-24-3	Decachlorobiphenyl	52%	47%	62%	10-143%

- (a) Analysis performed at SGS Accutest, Dayton, NJ.
(b) Confirmation run. Analysis performed at SGS Accutest, Dayton, NJ.
(c) Result is from Run# 2
(d) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PERMIT RENEWEL

Lab Sample ID: TD1443-1

Matrix: AQ - Water

Project: Permit

Date Sampled: 04/04/17

Date Received: 04/04/17

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Arsenic ^a	1.05	0.50	0.017	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Barium ^a	0.0151 B	0.50	0.014	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Cadmium ^a	0.060 U	0.25	0.060	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Chromium ^a	0.052 U	2.0	0.052	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Lead ^a	0.0053 U	0.25	0.0053	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Mercury ^b	0.000055 U	0.00020	0.000055	mg/l	1	04/07/17	04/07/17	ANJ	EPA 245.1 ¹	EPA 245.1 ⁴
Selenium ^a	0.681	0.50	0.058	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³
Silver ^a	0.021 U	1.0	0.021	mg/l	100	04/06/17	04/07/17	ANJ	EPA 200.8 ²	EPA 200.8 ³

(1) Instrument QC Batch: N:MA41735

(2) Instrument QC Batch: N:MA41746

(3) Prep QC Batch: N:MP99717

(4) Prep QC Batch: N:MP99751

(a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at SGS Accutest, Dayton, NJ.

(b) Analysis performed at SGS Accutest, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: PERMIT RENEWEL**Lab Sample ID:** TD1443-1**Matrix:** AQ - Water**Project:** Permit**Date Sampled:** 04/04/17**Date Received:** 04/04/17**Percent Solids:** n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
BOD, 5 Day	16.4	12	6.0	mg/l	1	04/04/17 17:34 OZ	SM	5210B-2000
Nitrogen, Ammonia	130	5.0	1.0	mg/l	50	04/06/17	TH	EPA 350.1
Nitrogen, Nitrate ^a	14 U	25	14	mg/l	50	04/05/17 06:31 ES	EPA	300
Nitrogen, Nitrite ^a	48.9	25	14	mg/l	50	04/05/17 06:31 ES	EPA	300
Phosphorus, Total	1.7	0.10	0.050	mg/l	5	04/04/17	BG	SM 4500PE-2011
Sulfide	0.010 U	0.20	0.010	mg/l	1	04/10/17	TH	SM 4500S+ F-2000
Sulfite	0.77 U	3.0	0.77	mg/l	1	04/04/17 16:15 CV	SM	4500 SO32 B-2011
Surfactants, MBAS as LAS ^b	0.25	0.10	0.080	mg/l	1	04/05/17 13:45 ALAS	SM5540	C-11

(a) Elevated reporting limit due to matrix interference.

(b) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



PAGE ____ OF ____

[illegible]

4.1

TD1443: Chain of Custody

Page 1 of 4

Abstract

COOLER TEMP FORM

TC# TD/483

Delivered by (circle one):

FedEx/UPS

ALGC Driver

Client

Date:

4-4-17

Client: _____

32

Cooler Number:

Thermometer ID: _____

CF, °C _____ 0

Corrected Temp. °C

SAMPLES CONTAINED IN COOLER

TD1443: Chain of Custody

Page 2 of 4

SGS Accutest Sample Receipt Summary

Page 1 of 2

Job Number: TD1443

Client: GULF CHEMICAL & METALLURGICAL

Project: PERMIT

Date / Time Received:

Delivery Method:

Airbill #s:

No. Coolers: 1

Therm ID: IR-4;

Temp Adjustment Factor: 0;

Cooler Temps (Initial/Adjusted): #1: (1.6/1.6);

Cooler Security

Y or N

Y or N

1. Custody Seals Present: ☒ ☐

3. COC Present: ☒ ☐

2. Custody Seals Intact: ☒ ☐

4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐

2. Cooler temp verification:

3. Cooler media: Ice (Bag)

Quality Control Preservation

Y or N

N/A

WTB

STB

1. Trip Blank present / cooler: ☐ ☒ ☐ ☐ ☐

2. Trip Blank listed on COC: ☐ ☒ ☐

3. Samples preserved properly: ☒ ☐

4. VOCs headspace free: ☒ ☐ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐

2. Container labeling complete: ☒ ☐

3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐

2. All containers accounted for: ☒ ☐

3. Condition of sample: Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear: ☒ ☐

2. Bottles received for unspecified tests ☐ ☒

3. Sufficient volume recvd for analysis: ☒ ☐

4. Compositing instructions clear: ☐ ☐ ☒

5. Filtering instructions clear: ☐ ☐ ☒

Comments

Sample Receipt Log

Page 2 of 2

Job #: TD1443 Date / Time Received: 4/4/2017 2:30:00 PM Initials: EC
 Client: GULF CHEMICAL & METALLURGICAL

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD1443-1	1000ml	1	SUB	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	1000ml	2	3D	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	500ml	3	3D	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	500ml	4	1Z	H2SO4	pH < 2	IR-4	1.6	0	1.6
1	TD1443-1	250ml	5	1Z	NaOH+ZnAc	pH > 12	IR-4	1.6	0	1.6
1	TD1443-1	LAG	6	4MM	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	LAG	7	4MM	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	LAG	8	4MM	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	LAG	9	4MM	N/P	Note #2 - Preservative check not applicable.	IR-4	1.6	0	1.6
1	TD1443-1	250ml	10	SUB	HNO3	pH < 2	IR-4	1.6	0	1.6
1	TD1443-1	40ml	11	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.6	0	1.6
1	TD1443-1	40ml	12	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.6	0	1.6
1	TD1443-1	40ml	13	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.6	0	1.6

TD1443: Chain of Custody

Page 4 of 4

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 2

Job Number: TD1443**Account:** GCMC Gulf Chemical & Metallurgical Corp.**Project:** Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG2272-MB	G0272128.D	1	04/07/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples:**Method:** EPA 624

TD1443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.30	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.30	ug/l	
75-25-2	Bromoform	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.33	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.75	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	1.2	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.3	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.49	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.3	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
100-42-5	Styrene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.30	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.65	ug/l	

Method Blank Summary

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG2272-MB	G0272128.D	1	04/07/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples: Method: EPA 624

TD1443-1

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	89% 72-122%
17060-07-0	1,2-Dichloroethane-D4	92% 68-124%
2037-26-5	Toluene-D8	99% 80-119%
460-00-4	4-Bromofluorobenzene	96% 72-126%

Blank Spike Summary

Page 1 of 2

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG2272-BS	G0272125.D	1	04/06/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples:

Method: EPA 624

TD1443-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	72.4	58	46-129
71-43-2	Benzene	25	23.2	93	68-119
75-27-4	Bromodichloromethane	25	20.4	82	72-118
75-25-2	Bromoform	25	20.2	81	54-123
108-90-7	Chlorobenzene	25	24.8	99	74-120
75-00-3	Chloroethane	25	21.9	88	61-132
67-66-3	Chloroform	25	21.7	87	73-122
75-15-0	Carbon disulfide	25	19.5	78	55-140
56-23-5	Carbon tetrachloride	25	21.0	84	68-133
75-34-3	1,1-Dichloroethane	25	22.9	92	72-121
75-35-4	1,1-Dichloroethylene	25	24.1	96	67-140
107-06-2	1,2-Dichloroethane	25	21.7	87	68-121
78-87-5	1,2-Dichloropropane	25	22.2	89	72-116
124-48-1	Dibromochloromethane	25	22.2	89	68-119
156-59-2	cis-1,2-Dichloroethylene	25	21.3	85	72-117
10061-01-5	cis-1,3-Dichloropropene	25	22.1	88	71-118
156-60-5	trans-1,2-Dichloroethylene	25	25.2	101	68-124
10061-02-6	trans-1,3-Dichloropropene	25	23.8	95	72-127
100-41-4	Ethylbenzene	25	25.4	102	71-117
591-78-6	2-Hexanone	125	107	86	49-124
108-10-1	4-Methyl-2-pentanone	125	103	82	54-122
74-83-9	Methyl bromide	25	23.3	93	53-138
74-87-3	Methyl chloride	25	16.6	66	50-145
75-09-2	Methylene chloride	25	20.5	82	60-125
78-93-3	Methyl ethyl ketone	125	84.9	68	51-129
100-42-5	Styrene	25	24.7	99	74-119
71-55-6	1,1,1-Trichloroethane	25	22.2	89	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	22.9	92	62-121
79-00-5	1,1,2-Trichloroethane	25	23.7	95	70-119
127-18-4	Tetrachloroethylene	25	26.7	107	72-132
108-88-3	Toluene	25	25.4	102	73-119
79-01-6	Trichloroethylene	25	24.8	99	73-121
75-01-4	Vinyl chloride	25	19.7	79	54-126
1330-20-7	Xylene (total)	75	76.4	102	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG2272-BS	G0272125.D	1	04/06/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples: Method: EPA 624

TD1443-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	72-122%
17060-07-0	1,2-Dichloroethane-D4	87%	68-124%
2037-26-5	Toluene-D8	102%	80-119%
460-00-4	4-Bromofluorobenzene	98%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1522-1MS	G0272132.D	1	04/07/17	ZQ	n/a	n/a	VG2272
TD1522-1MSD	G0272133.D	1	04/07/17	ZQ	n/a	n/a	VG2272
TD1522-1 ^a	G0272129.D	1	04/07/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples:

Method: EPA 624

TD1443-1

CAS No.	Compound	TD1522-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	38.3	125	135	77	125	138	80	2	46-129/25
71-43-2	Benzene	ND	25	26.1	104	25	26.6	106	2	68-119/12
75-27-4	Bromodichloromethane	1.1	25	24.9	95	25	25.3	97	2	72-118/16
75-25-2	Bromoform	5.8	25	31.4	102	25	33.0	109	5	54-123/17
108-90-7	Chlorobenzene	ND	25	27.5	110	25	28.0	112	2	74-120/12
75-00-3	Chloroethane	ND	25	24.8	99	25	29.4	118	17*	61-132/16
67-66-3	Chloroform	6.0	25	31.9	104	25	31.6	102	1	73-122/13
75-15-0	Carbon disulfide	ND	25	22.4	90	25	23.5	94	5	55-140/24
56-23-5	Carbon tetrachloride	ND	25	23.9	96	25	25.2	101	5	68-133/20
75-34-3	1,1-Dichloroethane	ND	25	26.7	107	25	27.3	109	2	72-121/14
75-35-4	1,1-Dichloroethylene	ND	25	26.9	108	25	27.5	110	2	67-140/18
107-06-2	1,2-Dichloroethane	0.38	25	25.2	99	25	25.2	99	0	68-121/12
78-87-5	1,2-Dichloropropane	ND	25	25.1	100	25	25.7	103	2	72-116/12
124-48-1	Dibromochloromethane	3.3	25	29.6	105	25	30.4	108	3	68-119/15
156-59-2	cis-1,2-Dichloroethylene	ND	25	24.9	100	25	25.0	100	0	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	8.6	34*	25	7.9	32*	8	71-118/18
156-60-5	trans-1,2-Dichloroethylene	ND	25	29.2	117	25	29.8	119	2	68-124/15
10061-02-6	trans-1,3-Dichloropropene	ND	25	18.5	74	25	18.8	75	2	72-127/17
100-41-4	Ethylbenzene	ND	25	27.7	111	25	28.3	113	2	71-117/12
591-78-6	2-Hexanone	ND	125	130	104	125	134	107	3	49-124/21
108-10-1	4-Methyl-2-pentanone	ND	125	123	98	125	127	102	3	54-122/20
74-83-9	Methyl bromide	ND	25	4.0	16*	25	3.9	16*	3	53-138/16
74-87-3	Methyl chloride	ND	25	18.2	73	25	21.7	87	18*	50-145/17
75-09-2	Methylene chloride	ND	25	24.3	97	25	24.5	98	1	60-125/16
78-93-3	Methyl ethyl ketone	ND	125	117	94	125	112	90	4	51-129/22
100-42-5	Styrene	ND	25	27.1	108	25	27.6	110	2	74-119/19
71-55-6	1,1,1-Trichloroethane	ND	25	24.8	99	25	26.3	105	6	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.2	97	25	25.0	100	3	62-121/17
79-00-5	1,1,2-Trichloroethane	ND	25	26.2	105	25	26.8	107	2	70-119/13
127-18-4	Tetrachloroethylene	ND	25	43.6	174*	25	45.3	181*	4	72-132/14
108-88-3	Toluene	ND	25	26.1	104	25	26.6	106	2	73-119/13
79-01-6	Trichloroethylene	ND	25	28.5	114	25	29.3	117	3	73-121/13
75-01-4	Vinyl chloride	ND	25	22.5	90	25	27.1	108	19*	54-126/17
1330-20-7	Xylene (total)	ND	75	82.9	111	75	85.3	114	3	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: TD1443

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD1522-1MS	G0272132.D	1	04/07/17	ZQ	n/a	n/a	VG2272
TD1522-1MSD	G0272133.D	1	04/07/17	ZQ	n/a	n/a	VG2272
TD1522-1 ^a	G0272129.D	1	04/07/17	ZQ	n/a	n/a	VG2272

The QC reported here applies to the following samples:

Method: EPA 624

TD1443-1

CAS No.	Surrogate Recoveries	MS	MSD	TD1522-1	Limits
1868-53-7	Dibromofluoromethane	97%	94%	93%	72-122%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	93%	68-124%
2037-26-5	Toluene-D8	98%	98%	100%	80-119%
460-00-4	4-Bromofluorobenzene	98%	99%	97%	72-126%

(a) Sample composited prior to analysis per client request.

* = Outside of Control Limits.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: TD1443

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-MB	P48138A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples:

Method: EPA 625

TD1443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	1.7	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.4	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.8	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	1.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	3.8	ug/l	
95-48-7	2-Methylphenol	ND	5.0	1.4	ug/l	
	3&4-Methylphenol	ND	5.0	1.5	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.8	ug/l	
100-02-7	4-Nitrophenol	ND	25	13	ug/l	
87-86-5	Pentachlorophenol	ND	25	3.2	ug/l	
108-95-2	Phenol	ND	5.0	1.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.5	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.7	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.7	ug/l	
120-12-7	Anthracene	ND	5.0	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.8	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.9	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.8	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.6	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.9	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	1.7	ug/l	
86-74-8	Carbazole	ND	5.0	1.9	ug/l	
218-01-9	Chrysene	ND	5.0	1.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.9	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.6	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.6	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.8	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.8	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.6	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-MB	P48138A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples:

Method: EPA 625

TD1443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.6	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.1	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.8	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.9	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.1	ug/l	
86-73-7	Fluorene	ND	5.0	1.8	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.6	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.7	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.4	ug/l	
78-59-1	Isophorone	ND	5.0	1.8	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.6	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.9	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.6	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.5	ug/l	
91-20-3	Naphthalene	ND	5.0	1.8	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.8	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.9	ug/l	
129-00-0	Pyrene	ND	5.0	1.8	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	31% 10-66%
4165-62-2	Phenol-d5	21% 10-63%

Method Blank Summary

Job Number: TD1443
Account: GCMC Gulf Chemical & Metallurgical Corp.
Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-MB	P48138A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples: Method: EPA 625

TD1443-1

CAS No.	Surrogate Recoveries	Limits
118-79-6	2,4,6-Tribromophenol	87% 32-128%
4165-60-0	Nitrobenzene-d5	80% 29-115%
321-60-8	2-Fluorobiphenyl	81% 34-113%
1718-51-0	Terphenyl-d14	102% 23-138%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: TD1443

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-BS	P48139A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322
OP43290-BSD ^a	P48140A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples:

Method: EPA 625

TD1443-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	18.4	18	18.6	19	1	10-91/30
95-57-8	2-Chlorophenol	50	21.8	44	21.6	43	1	38-102/30
59-50-7	4-Chloro-3-methyl phenol	50	25.9	52	25.7	51	1	30-110/30
120-83-2	2,4-Dichlorophenol	50	26.7	53	26.7	53	0	41-107/30
105-67-9	2,4-Dimethylphenol	50	25.0	50	25.4	51	2	39-107/30
51-28-5	2,4-Dinitrophenol	50	24.6	49	25.2	50	2	24-119/30
534-52-1	4,6-Dinitro-o-cresol	50	31.3	63	32.3	65	3	40-121/30
95-48-7	2-Methylphenol	50	17.2	34	17.4	35	1	33-93/30
	3&4-Methylphenol	50	15.8	32	15.9	32	1	28-99/30
88-75-5	2-Nitrophenol	50	27.1	54	27.3	55	1	38-107/30
100-02-7	4-Nitrophenol	50	12	24	12	24	2	10-78/30
87-86-5	Pentachlorophenol	50	26.8	54	27.8	56	4	28-116/30
108-95-2	Phenol	50	7.3	15	7.4	15	1	15-70/30
95-95-4	2,4,5-Trichlorophenol	50	31.1	62	30.9	62	1	47-116/30
88-06-2	2,4,6-Trichlorophenol	50	30.8	62	30.8	62	0	44-112/30
83-32-9	Acenaphthene	50	28.7	57	28.6	57	0	44-106/30
208-96-8	Acenaphthylene	50	30.4	61	30.1	60	1	46-111/30
120-12-7	Anthracene	50	33.5	67	33.6	67	0	53-114/30
56-55-3	Benzo(a)anthracene	50	33.8	68	33.5	67	1	57-113/30
50-32-8	Benzo(a)pyrene	50	35.0	70	35.1	70	0	50-109/30
205-99-2	Benzo(b)fluoranthene	50	37.6	75	37.5	75	0	50-117/30
191-24-2	Benzo(g,h,i)perylene	50	32.4	65	33.0	66	2	43-127/30
207-08-9	Benzo(k)fluoranthene	50	38.6	77	39.4	79	2	52-123/30
101-55-3	4-Bromophenyl phenyl ether	50	34.6	69	34.2	68	1	48-113/30
85-68-7	Butyl benzyl phthalate	50	32.2	64	32.5	65	1	42-120/30
100-51-6	Benzyl Alcohol	50	18.8	38	19.5	39	4	31-97/30
91-58-7	2-Chloronaphthalene	50	30.2	60	31.3	63	4	35-123/30
106-47-8	4-Chloroaniline	50	24.6	49	24.5	49	0	36-104/30
86-74-8	Carbazole	50	34.5	69	34.7	69	1	50-113/30
218-01-9	Chrysene	50	34.2	68	34.1	68	0	59-116/30
111-91-1	bis(2-Chloroethoxy)methane	50	27.4	55	27.2	54	1	34-103/30
111-44-4	bis(2-Chloroethyl)ether	50	28.5	57	28.2	56	1	36-100/30
108-60-1	bis(2-Chloroisopropyl)ether	50	24.4	49	24.6	49	1	30-110/30
7005-72-3	4-Chlorophenyl phenyl ether	50	31.8	64	32.0	64	1	45-112/30
95-50-1	1,2-Dichlorobenzene	50	25.6	51	25.9	52	1	37-100/30
541-73-1	1,3-Dichlorobenzene	50	25.1	50	25.3	51	1	34-99/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: TD1443

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-BS	P48139A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322
OP43290-BSD ^a	P48140A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples:

Method: EPA 625

TD1443-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	50	25.7	51	25.6	51	0	36-99/30
121-14-2	2,4-Dinitrotoluene	50	35.2	70	35.8	72	2	52-115/30
606-20-2	2,6-Dinitrotoluene	50	34.4	69	34.7	69	1	52-111/30
91-94-1	3,3'-Dichlorobenzidine	50	32.2	64	31.8	64	1	37-125/30
53-70-3	Dibenzo(a,h)anthracene	50	33.0	66	33.5	67	2	47-125/30
132-64-9	Dibenzofuran	50	30.6	61	30.6	61	0	45-108/30
84-74-2	Di-n-butyl phthalate	50	36.4	73	36.5	73	0	47-118/30
117-84-0	Di-n-octyl phthalate	50	38.7	77	39.4	79	2	41-124/30
84-66-2	Diethyl phthalate	50	34.4	69	34.6	69	1	38-121/30
131-11-3	Dimethyl phthalate	50	33.2	66	33.4	67	1	41-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	50	32.0	64	31.9	64	0	50-123/30
206-44-0	Fluoranthene	50	33.5	67	33.6	67	0	50-118/30
86-73-7	Fluorene	50	31.4	63	31.6	63	1	47-113/30
118-74-1	Hexachlorobenzene	50	36.4	73	36.2	72	1	49-114/30
87-68-3	Hexachlorobutadiene	100	53.6	54	53.4	53	0	30-104/30
77-47-4	Hexachlorocyclopentadiene	50	11.0	22	11.0	22	0	10-97/30
67-72-1	Hexachloroethane	50	24.7	49	25.1	50	2	30-100/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	32.0	64	31.7	63	1	45-127/30
78-59-1	Isophorone	50	28.7	57	28.6	57	0	40-103/30
91-57-6	2-Methylnaphthalene	50	26.0	52	26.0	52	0	36-104/30
88-74-4	2-Nitroaniline	50	31.5	63	31.7	63	1	41-117/30
99-09-2	3-Nitroaniline	50	28.3	57	28.8	58	2	37-117/30
100-01-6	4-Nitroaniline	50	29.7	59	30.2	60	2	47-121/30
91-20-3	Naphthalene	50	26.6	53	26.5	53	0	40-104/30
98-95-3	Nitrobenzene	50	28.2	56	28.2	56	0	40-103/30
621-64-7	N-Nitroso-di-n-propylamine	50	28.6	57	28.9	58	1	36-112/30
86-30-6	N-Nitrosodiphenylamine	100	64.5	65	63.3	63	2	39-109/30
85-01-8	Phenanthrene	50	34.2	68	33.8	68	1	53-114/30
129-00-0	Pyrene	50	32.3	65	32.7	65	1	51-117/30
120-82-1	1,2,4-Trichlorobenzene	50	26.6	53	26.1	52	2	32-103/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	25%	25%	10-66%
4165-62-2	Phenol-d5	17%	17%	10-63%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: TD1443

Account: GCMC Gulf Chemical & Metallurgical Corp.

Project: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP43290-BS	P48139A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322
OP43290-BSD ^a	P48140A.D	1	04/11/17	SC	04/10/17	OP43290	EP2322

The QC reported here applies to the following samples:

Method: EPA 625

TD1443-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
118-79-6	2,4,6-Tribromophenol	75%	75%	32-128%
4165-60-0	Nitrobenzene-d5	59%	60%	29-115%
321-60-8	2-Fluorobiphenyl	60%	59%	34-113%
1718-51-0	Terphenyl-d14	75%	75%	23-138%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

General Chemistry

QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
BOD, 5 Day	GP41499/GN80747	2.0	0.0	mg/l	198	198	100.0	82-114%
Nitrogen, Ammonia	GP41562/GN80823	0.10	0.0	mg/l	2	1.92	96.0	90-110%
Nitrogen, Nitrate	GP41505/GN80753	0.50	0.0	mg/l	10	9.63	96.3	90-110%
Nitrogen, Nitrite	GP41505/GN80753	0.50	0.0	mg/l	10	9.86	98.6	90-110%
Phosphorus, Total	GP41550/GN80803	0.020	0.0	mg/l	0.4	0.38	95.0	91-108%
Sulfide	GN80895	0.20	0.0	mg/l	1600	1600	100.0	90-105%
Sulfite	GN80911	3.0	0.0	mg/l	50	50.5	101.0	97-102%

Associated Samples:

Batch GN80895: TD1443-1
Batch GN80911: TD1443-1
Batch GP41499: TD1443-1
Batch GP41505: TD1443-1
Batch GP41550: TD1443-1
Batch GP41562: TD1443-1
(*) Outside of QC limits

7.1

7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN80895	mg/l	1600	1600	0.0	

Associated Samples:
Batch GN80895: TD1443-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
BOD, 5 Day	GP41499/GN80747	TD1421-2A	mg/l	5.0	5.0	0.0	0-15%
Nitrogen, Ammonia	GP41562/GN80823	TD1554-1A	mg/l	0.064	0.0	200.0 (a)	0-20%
Nitrogen, Nitrate	GP41505/GN80753	TD1420-20	mg/l	0.52	0.52	0.0	0-20%
Nitrogen, Nitrite	GP41505/GN80753	TD1420-20	mg/l	1.0	1.0	0.0	0-20%
Phosphorus, Total	GP41550/GN80803	LA31902-1	mg/l	0.36	0.37	2.7	0-20%
Sulfite	GN80911	TD1443-1	mg/l	0.77 U	0.0	0.0	0-10%

Associated Samples:

Batch GN80911: TD1443-1

Batch GP41499: TD1443-1

Batch GP41505: TD1443-1

Batch GP41550: TD1443-1

Batch GP41562: TD1443-1

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: GCMC - Gulf Chemical & Metallurgical Corp.
Project: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Ammonia	GP41562/GN80823	TD1554-1A	mg/l	0.064	2	2.2	106.8	90-110%
Nitrogen, Nitrate	GP41505/GN80753	TD1420-20	mg/l	0.52	10	8.7	81.8	80-120%
Nitrogen, Nitrite	GP41505/GN80753	TD1420-20	mg/l	1.0	10	9.7	87.0	80-130%
Phosphorus, Total	GP41550/GN80803	LA31902-1	mg/l	0.36	2.0	2.2	92.0	83-110%
Sulfite	GN80911	TD1443-1	mg/l	0.77 U	50	50.5	101.0	95-102%

Associated Samples:

Batch GN80911: TD1443-1

Batch GP41505: TD1443-1

Batch GP41550: TD1443-1

Batch GP41562: TD1443-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.4

7

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

FED-EX Tracking # 5642 4620 6050
SGS Accutest Quote #

Bottle Order Control #	
------------------------	--

SGS Accutest Job	TD1443
------------------	--------

[illegible]

RUSH

8.

TD1443: Chain of Custody

Page 1 of 5

SGS Accutest New Jersey



ACCUTEST

CHAIN OF CUSTODY

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sgs.com

FED-EX Tracking # 56R2-42206153		Bottle Order Control #	
SGS Account Quote #		SGS Account Job TD1443	
Client / Reporting Information		Project Information	
Company Name: SGS Accutest		Project Name: Permit	
Street Address 10165 Harwin Drive		Billing Information (if different from Report to)	
City State Zip Houston TX 77036		Company Name	
Project Contact Trameshia.Brown@sgs.com		Project #	
Phone # 713-271-4700		Client Purchase Order #	
Sampler(s) Name(s)		Project Manager	
Field ID / Point of Collection		Collection	
MECH/DI Val #		Date Time	
1 PERMIT RENEWEL		4/4/17 10:05:00 AM	
Turnaround Time (Business days)		Data Deliverable Information	
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input checked="" type="checkbox"/> other Due 4/11/2017 Emergency & Rush TIA data available VIA Lablink		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> Other COMMB Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	
Approved By (SGS Accutest PM): / Date:		Comments / Special Instructions	
		INITIAL ASSESSMENT 2/2A LABEL VERIFICATION WJ	
Relinquished by Sampler		Relinquished By:	
1 FED EX		2 FED EX	
Date Time:		Date Time:	
3 4/4/17		4 4/4/17	
Received By:		Received By:	
5		4	
Date Time:		Date Time:	
5		4	
Relinquished by:		Custody Seal #	
5		Intact Not Intact	
		Preserved where applicable	
		On Ice	
		Cooler Temp. 1.4°C	

TD1443: Chain of Custody

SGS Accutest Sample Receipt Summary

Job Number: TD1443

Client: SGS Houston

Project: Permit

Date / Time Received: 4/5/2017 9:40:00 AM

Delivery Method: FedEx

Airbill #s: 564246206050

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (4.1);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments -1 Only rec'd Metals volume. Did not receive Pest 608 volume.

Revised 4/7/17

-1 Rec'd missing Pest 608 volume.

SM089-02
Rev. Date 12/1/16

TD1443: Chain of Custody

Page 3 of 5

Responded to by: Michelle

Response Date: 4/6

Response:

EXT volume will be sent for receipt tomorrow, 4/7

REVISED:
Proceed w/EXT volume for PEST/PCB

8.1
8

SGS Accutest Sample Receipt Summary

Job Number: TD1443

Client: _____

Project: _____

Date / Time Received: 4/7/2017 9:40:00 AM

Delivery Method: _____

Airbill #s: _____

Cooler Temps (Raw Measured) °C: Cooler 2: (1.4);

Cooler Temps (Corrected) °C: Cooler 2: (2.8);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

SM089-02
Rev. Date 12/1/16

TD1443: Chain of Custody

Page 5 of 5

GC Semi-volatiles

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD1443
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1758-MB1	XX207906.D	1	04/11/17	SP	04/10/17	OP1758	GXX5989

The QC reported here applies to the following samples: Method: EPA 608

TD1443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.17	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.15	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.14	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.13	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.17	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.14	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	92% 10-156%
877-09-8	Tetrachloro-m-xylene	97% 10-156%
2051-24-3	Decachlorobiphenyl	39% 10-143%
2051-24-3	Decachlorobiphenyl	41% 10-143%

Method Blank Summary

Page 1 of 1

Job Number: TD1443

Account: ALGC SGS Accutest Gulf Coast

Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1759-MB1	1G133856.D	1	04/12/17	CP	04/10/17	OP1759	G1G4278

The QC reported here applies to the following samples:

Method: EPA 608

TD1443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0030	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0030	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0028	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0023	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.0014	ug/l	
12789-03-6	Chlordane	ND	0.10	0.057	ug/l	
60-57-1	Dieldrin	ND	0.010	0.0018	ug/l	
72-54-8	4,4'-DDD	ND	0.010	0.0019	ug/l	
72-55-9	4,4'-DDE	ND	0.010	0.0031	ug/l	
50-29-3	4,4'-DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0026	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0021	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0019	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.0033	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0028	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.092	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	83% 10-156%
877-09-8	Tetrachloro-m-xylene	80% 10-156%
2051-24-3	Decachlorobiphenyl	42% 10-143%
2051-24-3	Decachlorobiphenyl	42% 10-143%

9.1.2
9

Blank Spike/Blank Spike Duplicate Summary

Job Number: TD1443
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1758-BS1	XX207907.D	1	04/11/17	SP	04/10/17	OP1758	GXX5989
OP1758-BSD	XX207908.D	1	04/11/17	SP	04/10/17	OP1758	GXX5989

The QC reported here applies to the following samples: Method: EPA 608

TD1443-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	2.1	105	2.2	110	5	42-160/37
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/30
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/30
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/30
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/30
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/30
11096-82-5	Aroclor 1260	2	1.8	90	2.0	100	11	41-158/40

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	85%	88%	10-156%
877-09-8	Tetrachloro-m-xylene	92%	96%	10-156%
2051-24-3	Decachlorobiphenyl	40%	49%	10-143%
2051-24-3	Decachlorobiphenyl	42%	51%	10-143%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: TD1443
Account: ALGC SGS Accutest Gulf Coast
Project: GCMC: Permit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1759-BS1	1G133857.D	1	04/12/17	CP	04/10/17	OP1759	G1G4278
OP1759-BSD	1G133858.D	1	04/12/17	CP	04/10/17	OP1759	G1G4278

The QC reported here applies to the following samples:

Method: EPA 608

TD1443-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.25	0.14	56	0.13	52	7	18-142/41
319-84-6	alpha-BHC	0.25	0.24	96	0.25	100	4	40-149/44
319-85-7	beta-BHC	0.25	0.24	96	0.25	100	4	41-141/41
319-86-8	delta-BHC	0.25	0.27	108	0.27	108	0	34-160/45
58-89-9	gamma-BHC (Lindane)	0.25	0.24	96	0.25	100	4	40-148/41
60-57-1	Dieldrin	0.25	0.25	100	0.25	100	0	41-152/44
72-54-8	4,4'-DDD	0.25	0.25	100	0.25	100	0	38-153/44
72-55-9	4,4'-DDE	0.25	0.21	84	0.21	84	0	35-146/43
50-29-3	4,4'-DDT	0.25	0.25	100	0.26	104	4	36-158/46
72-20-8	Endrin	0.25	0.25	100	0.25	100	0	45-161/44
1031-07-8	Endosulfan sulfate	0.25	0.26	104	0.27	108	4	41-154/43
7421-93-4	Endrin aldehyde	0.25	0.28	112	0.28	112	0	41-153/44
959-98-8	Endosulfan-I	0.25	0.24	96	0.24	96	0	38-146/42
33213-65-9	Endosulfan-II	0.25	0.26	104	0.27	108	4	40-149/41
76-44-8	Heptachlor	0.25	0.16	64	0.15	60	6	27-141/43
1024-57-3	Heptachlor epoxide	0.25	0.23	92	0.22	88	4	39-148/43
72-43-5	Methoxychlor	0.25	0.26	104	0.27	108	4	38-153/41

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	89%	88%	10-156%
877-09-8	Tetrachloro-m-xylene	82%	81%	10-156%
2051-24-3	Decachlorobiphenyl	38%	66%	10-143%
2051-24-3	Decachlorobiphenyl	40%	61%	10-143%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99717
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/06/17 04/06/17

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	50	.23	1.3				
Antimony	2.0	.22	.26				
Arsenic	1.0	.017	.034	0.014	<1.0	0.050	<1.0
Barium	1.0	.0085	.028	0.034	<1.0	0.018	<1.0
Beryllium	0.50	.0022	.013				
Boron	50	2.3					
Cadmium	0.50	.0032	.12	0.019	<0.50	0.0088	<0.50
Calcium	250	1.4	3.7				
Chromium	4.0	.012	.1	0.034	<4.0	0.019	<4.0
Cobalt	0.50	.0018	.018				
Copper	4.0	.035	.14				
Iron	50	.19	2				
Lead	0.50	.0079	.011	0.032	<0.50	-0.040	<0.50
Magnesium	250	.21	3.6				
Manganese	1.0	.0078	.095				
Molybdenum	1.0	.023	.23				
Nickel	4.0	.018	.11				
Potassium	250	.77	8.8				
Selenium	1.0	.012	.12	0.018	<1.0	-0.019	<1.0
Silver	2.0	.0058	.041	0.029	<2.0	0.0093	<2.0
Sodium	250	.89	2.5				
Strontium	5.0	.006	.015				
Thallium	0.50	.002	.013				
Tin	5.0	.044	.38				
Titanium	1.0	.031	.56				
Vanadium	4.0	.03	.2				
Zinc	10	.067	1.2				

Associated samples MP99717: TD1443-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1443
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99717
 Matrix Type: AQUEOUS

Methods: EPA 200.8
 Units: ug/l

Prep Date: 04/06/17

Metal	JC40301-1 Original MS	Spikelot MPX200.8 % Rec	QC Limits
Aluminum	anr		
Antimony			
Arsenic	0.89 125	100 124.1	70-130
Barium	8.9 123	100 114.1	70-130
Beryllium			
Boron			
Cadmium	0.30 115	100 114.7	70-130
Calcium			
Chromium	0.51 121	100 120.5	70-130
Cobalt			
Copper			
Iron	anr		
Lead	0.78 115	100 114.2	70-130
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium	0.75 250	200 124.6	70-130
Silver	0.48 92.7	76.5 120.5	70-130
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc	anr		

Associated samples MP99717: TD1443-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99717
Matrix Type: AQUEOUS

Methods: EPA 200.8
Units: ug/l

Prep Date: 04/06/17

Metal	JC40301-1 Original	MSD	Spikelot MPX200.8	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	0.89	113	100	112.1	10.1 (a)	10
Barium	8.9	114	100	105.1	7.6	20
Beryllium						
Boron						
Cadmium	0.30	107	100	106.7	7.2	10
Calcium						
Chromium	0.51	108	100	107.5	11.4 (a)	10
Cobalt						
Copper						
Iron	anr					
Lead	0.78	108	100	107.2	6.3	10
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.75	234	200	116.6	6.6	10
Silver	0.48	87.3	76.5	113.5	6.0	10
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP99717: TD1443-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD1443
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99717
 Matrix Type: AQUEOUS

Methods: EPA 200.8
 Units: ug/l

Prep Date:

04/06/17

04/06/17

Metal	BSP Result	Spikelot MPX200.8	% Rec	QC Limits	BSP Result	Spikelot MPX200.8	% Rec	QC Limits
Aluminum	anr							
Antimony								
Arsenic	101	100	101.0	85-115	101	100	101.0	85-115
Barium	98.6	100	98.6	85-115	97.2	100	97.2	85-115
Beryllium								
Boron								
Cadmium	101	100	101.0	85-115	95.0	100	95.0	85-115
Calcium								
Chromium	100	100	100.0	85-115	96.3	100	96.3	85-115
Cobalt								
Copper								
Iron	anr							
Lead	101	100	101.0	85-115	96.0	100	96.0	85-115
Magnesium								
Manganese								
Molybdenum								
Nickel								
Potassium								
Selenium	215	200	107.5	85-115	209	200	104.5	85-115
Silver	80.9	76.5	105.8	85-115	77.2	76.5	100.9	85-115
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc	anr							

Associated samples MP99717: TD1443-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

QC Batch ID: MP99751
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 04/07/17

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.012	.055	0.022	<0.20

Associated samples MP99751: TD1443-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1443
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99751
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/07/17

Metal	JC40367-5		Spikelot	QC	
	Original MS		HGPW3	% Rec	Limits
Mercury	0.0	2.0	2	100.0	70-130

Associated samples MP99751: TD1443-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TD1443
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99751
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/07/17

Metal	JC40367-5 Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.0	2	100.0	0.0 19

Associated samples MP99751: TD1443-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TD1443
 Account: ALGC - SGS Accutest Gulf Coast
 Project: GCMC: Permit

QC Batch ID: MP99751
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 04/07/17

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.2	2	110.0	85-115

Associated samples MP99751: TD1443-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Lafayette)

Includes the following where applicable:

- Chain of Custody

10165 Harwin Drive, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.sos.com

[illegible]

TD1443: Chain of Custody

Page 1 of 3

SGS Accutest Lafayette

Date / Time: 4/4/2017 3:57:32 PM
CSR: TRAMESHB
Job #: TD1443
Client Project: Permit
Deliverable: COMMB
TAT: Due 4/11/2017

Sub Lab: Accutest Gulf Coast Louisiana
Address: 500 Ambassador Caffery Prkway
City: Scott
State: LA Zip: 70583
Contact: Sample Receiving
Phone: 800-304-5227

SGS Accutest Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
TD1443-1	PERMIT RENEWEL	MBAS	1Z_3D_4MM.SUB_VR		4/4/2017	10:05:00 AM	

Comments:

Sample Management Receipt: _____

Date: _____

① 10002 (NP) ①④

TD1443: Chain of Custody
Page 2 of 3

SGS Accutest Sample Receipt Summary

Job Number: TD1443

Client: SGS

Project: PERMIT

Date / Time Received: 4/5/2017 10:50:00 AM

Delivery Method: Accutest Courier

Airbill #'s: _____

Cooler Temps (Initial/Adjusted): #1: (1.6/1.6):

Cooler Security

	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Thermometer ID:	_____ ; _____		
3. Cooler media:	<u>Ice (direct contact)</u>		
4. No. Coolers:	<u>1</u>		

Quality Control Preservation

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	<u>Intact</u>		

Sample Integrity - Instructions

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

TD1443: Chain of Custody

Page 3 of 3

General Chemistry

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Surfactants, MBAS as LAS	GN10286	0.10	0.0	mg/l	.75	0.73	97.0	80-120%

Associated Samples:
Batch GN10286: TD1443-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Surfactants, MBAS as LAS	GN10286	mg/l	.75	0.73	0.7	

Associated Samples:
Batch GN10286: TD1443-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TD1443
Account: ALGC - SGS Accutest Gulf Coast
Project: GCMC: Permit

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Surfactants, MBAS as LAS	GN10286	LA32046-1	mg/l	0.11	0.11	4.6	0-20%

Associated Samples:
Batch GN10286: TD1443-1
(*) Outside of QC limits

Candice Calhoun

From: Perkin, Corey <cperkin@cecinc.com>
Sent: Monday, August 26, 2024 3:29 PM
To: Candice Calhoun
Cc: Judy LeBlanc; Mehevec, Adam
Subject: Application to Renew Permit WQ0001861000 Administrative Comments
Attachments: 331-933 - Administrative Comments Cover Letter.pdf; WQ0001861000 Spanish NORI.docx; WQ0001861000 English NORI.docx

Follow Up Flag: Follow up
Flag Status: Completed

Candice,

Please see attached Gladieux Metals Recycling Application to Renew Permit WQ0001861000 Administrative Comments for your review. Per your request, attached is the Word Documents for both the English and Spanish NORI portions.

Thank you,

Corey P. Perkin | Assistant Project Manager
Civil & Environmental Consultants, Inc.
1221 S. MoPac Expressway, Suite 350, Austin, TX 78746
direct 512.225.8102 office 512.439.0400 mobile 512.952.2016
www.cecinc.com

Celebrating 35 years of client-first service!

Civil & Envir



August 26, 2024

Candice Calhoun
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Subject: Gladieux Metals Recycling, LLC
TPDES Permit No. WQ0001861000 Renewal Application
CN605364843, RN100210129
CEC Project 331-933

Dear Ms. Calhoun,

On behalf of Gladieux Metals Recycling (GMR), Civil & Environmental Consultants, Inc. (CEC) is pleased to submit this response to the comments related to the permit renewal application for the existing onsite wastewater treatment system.

- 1. The following is a portion of the NORI which contains information to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.**

APPLICATION. Gladieux Metals Recycling, LLC, 302 Midway Road, Freeport, Texas 77541, which owns a commercial industrial and hazardous waste management facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001861000 (EPA I.D. No. TX0034738) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 350,000 gallons per day via Outfall 001, and the discharge of stormwater on an intermittent and flow-variable basis via Outfall 002. The facility is located at 302 Midway Road, near the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site via Outfall 001 to the Dow Chemical Plant "A" Canal; thence to the Brazos River Tidal; and via Outfall 002 to an unnamed drainage ditch; thence to Old Brazos River Channel Tidal. TCEQ received this application on August 7, 2024. The permit application will be available for viewing and copying at Freeport Branch Library, 410 Brazosport Boulevard, Freeport, in Brazoria County, Texas prior to the date this notice is published in the newspaper. 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>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.338055,28.956388&level=18>

Further information may also be obtained from Gladioux Metals Recycling, LLC at the address stated above or by calling Ms. Judy LeBlanc, Environmental Health and Safety Specialist, at 979-415-1547.

The English portion of the NORI above needed one edit. Ms. Judy's Leblanc's title was omitted from the NORI and is included in Attachment 1.

- 2. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.**

The translated Spanish NORI is included in Attachment 2 and as a separate word document as an attachment to this email response.

If you have any questions regarding this submittal, please feel free to contact me at 512-225-8102 or email at cperkin@cecinc.com

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Corey P. Perkin
Assistant Project Manager



Adam W. Mehevec, P.E.
Vice President

Enclosures: Attachment 1 – English NORI
Attachment 2 – Spanish NORI

cc: Judy LeBlanc (GMR)

ATTACHMENT 1
WQ0001861000 ENGLISH NORI

ENGLISH NORI

APPLICATION. Gladieux Metals Recycling, LLC, 302 Midway Road, Freeport, Texas 77541, which owns a commercial industrial and hazardous waste management facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001861000 (EPA I.D. No. TX0034738) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 350,000 gallons per day via Outfall 001, and the discharge of stormwater on an intermittent and flow-variable basis via Outfall 002. The facility is located at 302 Midway Road, near the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site via Outfall 001 to the Dow Chemical Plant "A" Canal; thence to the Brazos River Tidal; and via Outfall 002 to an unnamed drainage ditch; thence to Old Brazos River Channel Tidal. TCEQ received this application on August 7, 2024. The permit application will be available for viewing and copying at Freeport Branch Library, 410 Brazosport Boulevard, Freeport, in Brazoria County, Texas prior to the date this notice is published in the newspaper. 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>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.338055,28.956388&level=18>

Further information may also be obtained from Gladieux Metals Recycling, LLC at the address stated above or by calling Ms. Judy LeBlanc at 979-415-1547.

ATTACHMENT 2
WQ0001861000 SPANISH NORI

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 RENOVACION

PERMISO NO. WQ000

SOLICITUD. Gladieux Metals Recycling LLC ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0001861000 (EPA I.D. No. TX0034738) 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 350,000 galones por día. La planta está ubicada 302 Midway Road en el Condado de Brazoria, Texas. La ruta de descarga es del sitio de la planta a vía emisario 001 hacia el canal "A" de la planta Química de Dow; de allí hasta la marea del río Brazos y por el emisario 002 hasta la de drenaje sin nombre; de allí a la marea del antiguo canal del río Brazos. La TCEQ recibió esta solicitud el día 07 de Agosto del 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la biblioteca de Freeport Branch, 410 Brazos sport Boulevard, Freeport, en el condado de Brazos, 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=-95.338055,28.956388&level=1>

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. *[For renewal applications that **do not** include a major amendment, include the following sentence:]* Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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 envía 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 Gladieux Metals Recycling, LLC a la dirección indicada arriba o llamando a Ms. Judy LeBlanc al 979-415-1547

Fecha de emisión 26 de Agosto del 2024