APPENDIX L

COMMENTS ON THE DEIS AND RESPONSES

Gulf LNG

Comments on the DEIS and Responses

INDEX

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Brandon Howard, Baton Rouge, LA.
Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, D.C. 20426

Dear Ms. Bose:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) and the appended Essential Fish Habitat Assessment, dated November, 2018, for the "Gulf LNG Liquefaction Project" (Docket No. CP15-521-000). The Federal Energy Regulatory Commission (FERC) proposes to authorize the expansion of the existing facility pursuant to sections 3(a) and 7 of the Natural Gas Act. The project is located in Pascagoula, Mississippi. The following is provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and 600.920 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

The NMFS attended meetings and provided technical assistance on November 10, 2017, and December 13, 2017. In addition, NMFS reviewed an advanced copy of the DEIS and provided comments by email dated February 23, 2018. The project would impact 28 acres of estuarine emergent marsh and palustrine emergent marsh characterized as essential fish habitat (EFH). Mitigation would consist of a 50-acre intertidal marsh creation project immediately south of the terminal expansion site. The applicant will work closely with NMFS and the Mississippi Beneficial Use Group to explore opportunities utilizing sediment generated from berth expansion to create marsh prior to disposal offshore. FA1-1

Due to NMFS' early involvement and close coordination with FERC and the applicant, the project has been designed to avoid, minimize, and mitigate impacts to EFH and federally managed fishery species in the Mississippi Sound and surrounding waters. The NMFS Habitat Conservation Division does not object to the project as proposed and agrees with FERC's determination in Section 4.6.3.3 and Appendix C of the DEIS that the project will not adversely affect EFH.

We appreciate your consideration of our comments. If you wish to discuss this project further or have questions concerning our recommendations, please contact Brandon Howard at (225) 380-0050 or Brandon.Howard@noaa.gov.

FA1-1 Comment acknowledged. We have updated our consultation within sections 4.6.3 and 4.7.1 of the EIS and appendix C of the EFH Assessment.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 17 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Re: Draft Environmental Impact Statement (DEIS) for the Gulf LNG Liquefaction Project, Jackson County, Mississippi; FERC Docket No. CP15-521; CEQ# 20180278

Dear Ms. Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the DEIS for the Gulf LNG Liquefaction Project in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The DEIS evaluates the potential impacts to natural and human environments resulting from the proposed expansion of the existing natural gas facility located in Jackson County, Mississippi. The proposal would disturb a total of 230 acres of mix land types. The DEIS indicates that 172 acres will be permanently impacted and includes 39 acres of wetlands which would be permanently filled. The Federal Energy Regulatory Commission (FERC) invited the EPA to become a cooperating agency as outlined in the letter dated February 6, 2015.

FA2-1

The EPA Region 4 NEPA Program Office did not receive 2 hardcopies (or 1 hardcopy and 1 CD) of the DEIS for our review. The FERC's filing of the DEIS did not conform to the requirements. Please see the following: https://www.epa.gov/nepa/environmental-impact-statement-filing-guidance. Please submit 2 hardcopies of the Final Environmental Impact Statement (FEIS) when it becomes available for review.

The purpose of the proposed expansion project is to enable bi-directional flow of natural gas along the Gulf LNG Pipeline system allowing incoming natural gas from three pipeline interconnections. The incoming natural gas would be treated, liquefied, stored, and loaded from LNG storage tanks into vessels. The existing terminal will retain import and re-gasification capabilities.

The alternatives analyzed in the DEIS included the No-Action Alternative, System Alternatives, Terminal Expansion Sites Alternative, Plot Plans for the Terminal Expansion Alternative, Liquefaction Technologies, Supply Dock Alternatives, Construction Support Area Sites Alternative, Pipeline Modification Sites Alternative, Power Source for the Refrigeration Compressors Alternative, and Power Source for the Terminal Expansion Alternative. After analyzing these alternatives, FERC concluded that none of these alternatives "*…provide a significant environmental advantage over the proposed action*[1]."

[1] DEIS Gulf LNG (CP-15-521): p.ES-9

FA2-1 Comment acknowledged. As of August 2018, the Commission moved to electronic issuance of environmental documents for FERC's natural gas and hydropower programs to save valuable resources, align FERC with the digital age, and continue to ensure that information is accessible to stakeholders (https://www.ferc.gov/media/news-releases/2018/2018-3/08-31-18.asp). This appendix contains our responses to the comments received on the draft EIS for the Gulf LNG Liquefaction Project and includes references to the specific EIS section in which each comment is addressed. Where no revision to the EIS is required, a clear explanation is provided in this appendix.

FA2-1 cont'd

Based on our review of the DEIS, the EPA identified several issues that could potentially help to improve the Final Environmental Impact Statement (FEIS). The EPA requests that additional information be provided and reported in the FEIS. The EPA recommends that all relevant permits and consultations be concluded at the time of the FEIS issuance. We have enclosed technical comments and recommendations for your consideration that can strengthen the conclusions in the FEIS (See enclosure).

Effective October 22, 2018, the EPA will no longer include ratings in our comment letters. Information about this change and the EPA' s continued roles and responsibilities in the review of federal actions can be found on our website at: https://www.cpa.gov/ncpa/cnvironmcntal-impact-statcmcnt-rating-system-criteria.

The EPA appreciates the opportunity to review and provide comments on this DEIS. If you have questions or wish to discuss our comments and recommendations, please contact Ms. Maria R. Clark at (404) 562-9513 or clark.maria@epa.gov.

Sincerely,

Christopher A. Militscher
Chief, NEPA Program Office
Resource Conservation and Restoration Division

Enclosure: Technical Comments and Recommendations

ENCLOSURE
Technical Comments and Recommendations on the DEIS for the Gulf LNG Liquefaction Project, Jackson County, Mississippi.
FERC Docket No. CP15-521; CEQ# 20180278

FA2-2 **Water Resources**: Section 2.6.3 of the DEIS states that hydrostatic test water would be discharge into the Mississippi Sound according with permit MSG13.
Recommendation: The EPA understands that there is a National Pollutant Discharge Elimination System (NPDES) permit in place but we recommend the use of filter covers to use at the end of the output pipe/hose to capture a variety of pollutants such as metals before entering the Sound's waters.

FA2-3 **Wetlands:** The DEIS indicated that the proposed project will permanently impact 39 acres of freshwater and tidal wetlands. In addition, several acres of wetlands are proposed to be temporarily impacted for construction staging areas. The temporary impact is expected to last 66 months during the construction phase of the project. The DEIS indicates that compensatory mitigation is proposed for the permanent impacts.
Recommendation: The EPA believes that the FERC should first strive to avoid and minimize impacts to jurisdictional wetlands rather than to mitigate them. We concur with FERC that CSA-5 should be returned to its pre-construction condition after the project is completed. However, we believe that this would be difficult due to the 66 months of the projected construction phase and soil compaction issues. The EPA recommends that additional efforts be made to avoid this wetland site.

FA2-4 **Threatened, Endangered, and Other Special Status Species:** Based upon the information in the DEIS, consultations with the U.S. Fish and Wildlife Service and National Marine Fishery Service are still ongoing. FERC recommended to these agencies to concur with FERC's determination, and to conclude these consultations before construction begins.
Recommendation: The EPA recommends that agency consultations continue and the FEIS should not be issued until all consultations are completed. Consistent with Executive Order 13807, 'One Federal Decision', FERC should consider concurrent environmental review efforts under NEPA and a commitment to process enhancements.

FA2-5 **Alternative Power Source for the Refrigeration Compressors and Emissions:** The DEIS provides an estimate of emissions and comparison between gas-fired compressor stations and electric compressors. The analysis reports that electric compressors generate more emissions than gas-fired compressors (Table 3.7-1).
Recommendation: The analysis only considered 'no-local emissions' and concludes that gas-fired compressors are the preferred alternative. The EPA recommends analyzing local emissions as well and include this information (and table) in the FEIS. Furthermore, the FEIS could inform the public why the mitigation of long range emissions deserves more consideration than the mitigation of local emissions that it might probe noticeable due to the cumulative impacts from a variety of projects in the area.

FA2-2 As stated in Gulf LNG's January 7, 2019 filing with the FERC (accession number 20190107-5151), Gulf LNG would work with the MDEQ to develop effective treatment methods for outfalls which may include the use of filter covers.

FA2-3 Sections 3.5 4.4 of the EIS has been revised to include an updated discussion regarding wetland impacts at CSA-5. Gulf LNG indicated that it would not be feasible to relocate CSA-5 within the BCDMMS as this area is an active dredge disposal location that would be periodically inundated with dredge spoil and water.

FA2-4 Sections 1.2 and 4.7 of the EIS have been revised to provide an updated status on consultations with the FWS and the NMFS. On February 22, 2019, the FWS agreed with our determinations of effects for those species under their jurisdiction. A response from the NMFS has not been received. Because ESA consultation with NMFS is not complete, we recommend that Gulf LNG should not begin any project construction until FERC staff completes ESA consultation with NMFS for the Project.

FA2-5 Section 3.7.1 of the EIS has been revised.

FA2-6 **Air Quality and Environmental Justice (EJ) Analysis:** The DEIS provides a traffic analysis showing data from 2014 and modeled to projected traffic to 2019. The DEIS recommended submitting an updated Traffic Impact Analysis prior to the end of the DEIS comment period. **Recommendation:** The EPA looks forward to reviewing the new Traffic Impact Analysis in the FEIS. In addition, the EPA recommends revisiting the EJ analysis since new traffic information will be available and possible updated information regarding the schedule overlap with other local projects.

FA2-7 **Additional Technical Recommendations:** In 2014, EPA estimated that the transmission and storage sector accounts for 13% of the total methane emissions from the oil and natural gas industry. The EPA reported that Reciprocating Compressors account for 35% of the emissions from this sector.
The EPA created the Natural Gas STAR Program that provides a framework for partner companies with U.S. oil and gas operations to implement methane reducing technologies and practices. We would like to encourage the applicant to join this program and find out its many benefits at: https://www.epa.gov/natural-gas-star-program

The EPA has issued three final rules that together will curb emissions of methane, smog-forming volatile organic compounds (VOCs) and toxic air pollutants such as benzene from new, reconstructed, and modified oil and gas sources, while providing greater certainty about Clean Air Act permitting requirements for the industry. To comply with these rules please see: https://www3.epa.gov/airquality/oilandgas/actions.html. Please note: *these rules are under review and public comments are due December 17, 2018. Please follow the link above for present compliance of rules until the review is final.*

FA2-8 The EPA recommends that FERC's applicant consider the 'Clean Diesel' initiative by implementing diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:

- Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
- Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

For more information on diesel emission controls in construction projects, please see: http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf

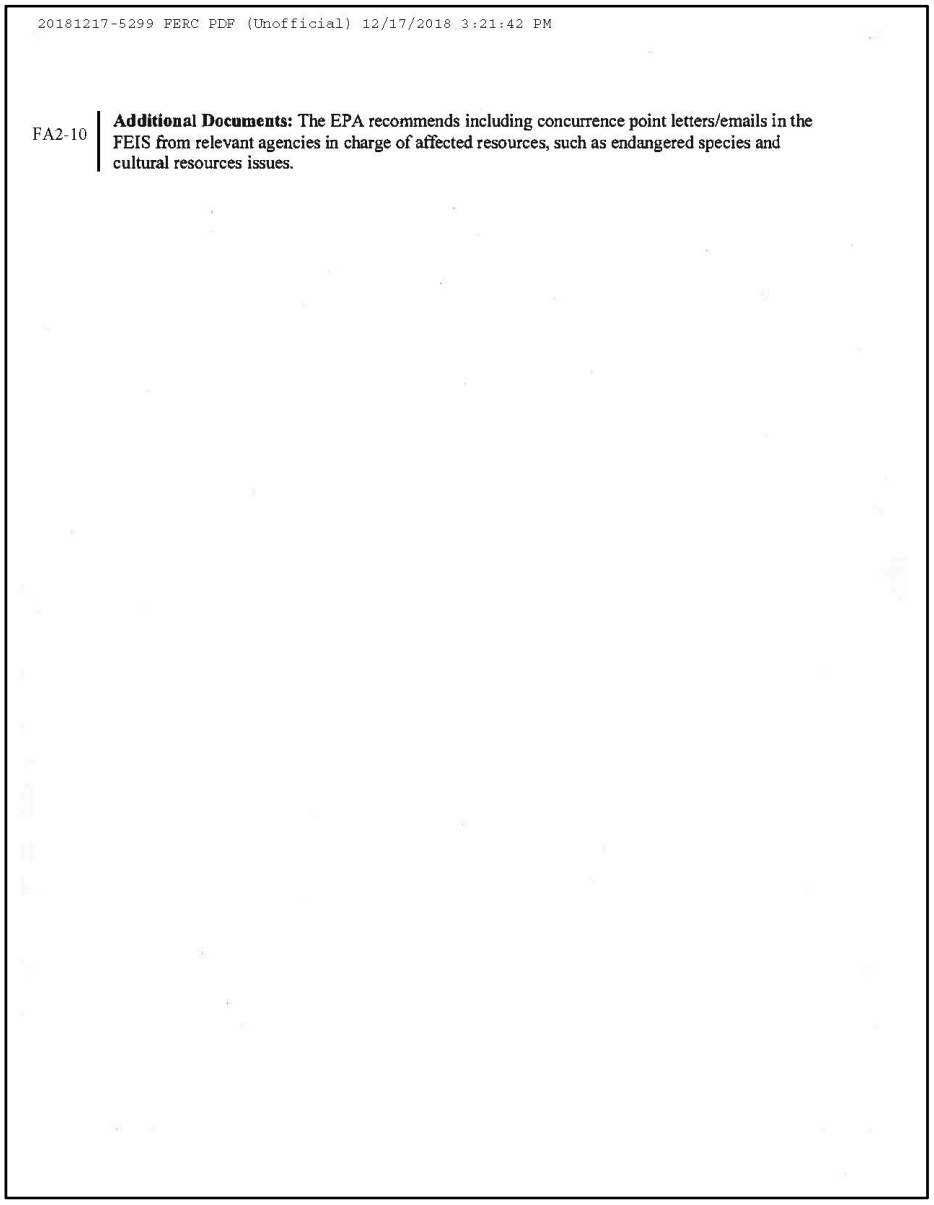
FA2-9 Regarding pipeline safety technologies, the EPA would like to take the opportunity to inform you about technologies that provide an advanced risk analysis tool called the 'intelligent pipeline' that could help determine preventative measures along the pipeline system without reaching the point of an emergency shut-down of the system. The Gulf LNG project could benefit from this type of technology due to its environmental location.

FA2-6 Section 4.9.6 of the EIS has been revised to include an updated traffic analysis.

FA2-7 As stated in Gulf LNG's January 7, 2019 filing with the FERC (accession number 20190107-5151), Gulf LNG's operator, Kinder Morgan, Inc., is a member of the STAR Program.

FA2-8 As stated in Gulf LNG's February 11, 2019 filing with the FERC (accession number 20190211-5019), Gulf LNG agrees to comply with the New Source Performance Standards. Gulf LNG states the Source Determination Rule and Indian Country Minor New Source Review Program are not applicable to the Gulf LNG Liquefaction Project. Gulf LNG would require the use of ultra-low sulfur diesel fuel and implement and enforce equipment idling rules in compliance with the Clean Diesel Initiative.

FA2-9 Safety is discussed in section 4.12.



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FA2-10 **Additional Documents:** The EPA recommends including concurrence point letters/emails in the FEIS from relevant agencies in charge of affected resources, such as endangered species and cultural resources issues.

FA2-10 In order to streamline our documents, all agencies letters are available on eLibrary. The accession number for concurrence letters can be found in the footnotes of section 1 of the final EIS.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Richard B. Russell Federal Building
75 Ted Turner Drive, S.W., Suite 1144
Atlanta, Georgia 30303

ER 18/0536
9043.1

December 21, 2018

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Comments on the Draft Environmental Impact Statement (DEIS) for the Proposed Gulf LNG Liquefaction Project, FERC No. CP15-521-000, Jackson County, Mississippi

Dear Ms. Bose:

FA3-1

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Gulf LNG Liquefaction Project in Jackson County, Mississippi. We have no comments at this time.

Thank you for the opportunity to provide comments on this project. I can be reached on (404) 331-4524 or via email at joyce_stanley@ios.doi.gov.

Sincerely,

Joyce Stanley, MPA
Regional Environmental Officer

cc: Christine Willis – FWS
Michael Norris - USGS
Anita Barnett – NPS
Chester McGhee - BIA
OEPC – WASH

FA3-1 Comment acknowledged.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340

February 22, 2019

IN REPLY REFER TO:
2019-I-186

Mr. Danny Laffoon
Federal Energy Regulatory Commission
Office of Energy Projects
Washington, D.C. 20426

Dear Mr. Laffoon:

The Fish and Wildlife Service (Service) has reviewed the information in your letter dated November 21, 2018, regarding the proposed Gulf LNG Liquefaction Project in Jackson County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and only pertain to those species under our jurisdiction.

FA4-1 The proposed project consists of onshore natural gas liquefaction at an existing terminal and associated facilities to allow export of liquefied natural gas and modifications to the existing Gulf LNG Pipeline to allow for bi-directional flow of natural gas to or from the expanded terminal.

Based on the information provided in your biological assessment, the Service concurs with your determination that the proposed project "may affect, but is not likely to adversely affect" the Alabama red-bellied turtle, rufa red knot, piping plover, Interior least tern, wood stork, gulf sturgeon, smalltooth sawfish, West Indian manatee, and nesting sea turtles (Kemp's ridley, green, loggerhead, leatherback, and hawksbill). We also concur with your determination that project-related construction and operation will not contribute to a trend toward federal listing for the saltmarsh topminnow. We expect the effects of the action on these species to be insignificant and should never reach the scale where take occurs.

The National Marine Fisheries Service has complete and/or shared jurisdiction with the Fish and Wildlife Service on some federally listed species. Therefore, consultation should take place with their office for species under their jurisdiction. The coastal population of least terns is not protected under the ESA, therefore, no determination of effects is required for this species.

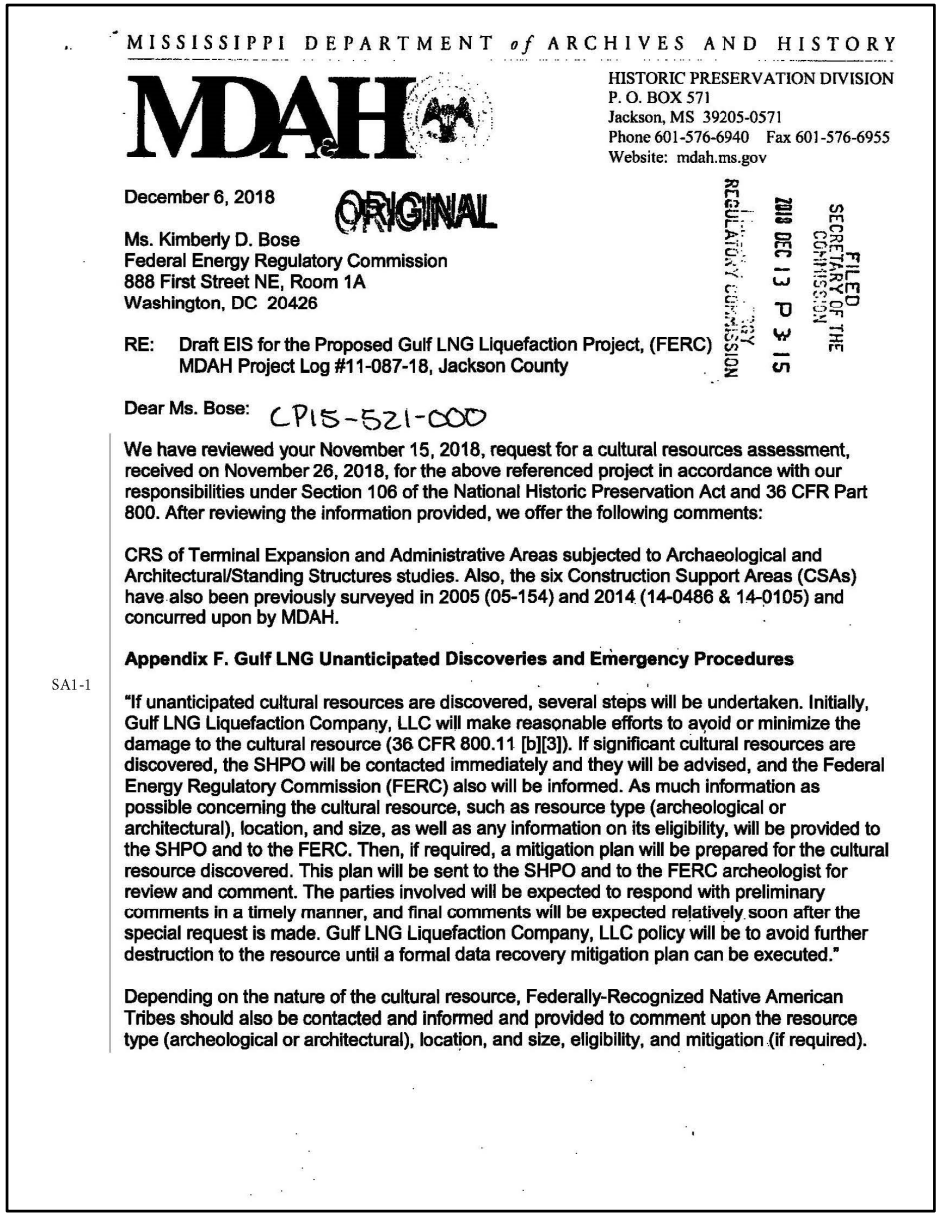
FA4-1 Comment acknowledged.

FA4-1 cont'd

No further consultation under the ESA is required with this office unless there are changes in the scope or location of the proposed project. Additionally, the Service has no comments on the Draft Environmental Impact Statement. If you have any questions, please contact Paul Necaise of our office, telephone: (228) 493-6631.

Sincerely,

Stephen M. Ricks
Field Supervisor
Mississippi Field Office



MISSISSIPPI DEPARTMENT of ARCHIVES AND HISTORY

MDAH

HISTORIC PRESERVATION DIVISION
P. O. BOX 571
Jackson, MS 39205-0571
Phone 601-576-6940 Fax 601-576-6955
Website: mdah.ms.gov

December 6, 2018

ORIGINAL

FILED
SECRETARY OF THE
COMMISSION
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REGULATORY COMMISSION

Ms. Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Draft EIS for the Proposed Gulf LNG Liquefaction Project, (FERC)
MDAH Project Log #11-087-18, Jackson County

Dear Ms. Bose: CP15-521-000

We have reviewed your November 15, 2018, request for a cultural resources assessment, received on November 26, 2018, for the above referenced project in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, we offer the following comments:

CRS of Terminal Expansion and Administrative Areas subjected to Archaeological and Architectural/Standing Structures studies. Also, the six Construction Support Areas (CSAs) have also been previously surveyed in 2005 (05-154) and 2014 (14-0486 & 14-0105) and concurred upon by MDAH.

Appendix F. Gulf LNG Unanticipated Discoveries and Emergency Procedures

SA1-1

"If unanticipated cultural resources are discovered, several steps will be undertaken. Initially, Gulf LNG Liquefaction Company, LLC will make reasonable efforts to avoid or minimize the damage to the cultural resource (36 CFR 800.11 [b][3]). If significant cultural resources are discovered, the SHPO will be contacted immediately and they will be advised, and the Federal Energy Regulatory Commission (FERC) also will be informed. As much information as possible concerning the cultural resource, such as resource type (archeological or architectural), location, and size, as well as any information on its eligibility, will be provided to the SHPO and to the FERC. Then, if required, a mitigation plan will be prepared for the cultural resource discovered. This plan will be sent to the SHPO and to the FERC archeologist for review and comment. The parties involved will be expected to respond with preliminary comments in a timely manner, and final comments will be expected relatively soon after the special request is made. Gulf LNG Liquefaction Company, LLC policy will be to avoid further destruction to the resource until a formal data recovery mitigation plan can be executed."

Depending on the nature of the cultural resource, Federally-Recognized Native American Tribes should also be contacted and informed and provided to comment upon the resource type (archeological or architectural), location, and size, eligibility, and mitigation (if required).

SA1-1 Section 4.10.4 of the EIS has been revised to address the SHPO's recommended revisions to expand the list of federally Native American tribes and include notification to the tribes of any unanticipated cultural resources. A revised *Unanticipated Discoveries and Emergency Procedures* has been included in appendix F.

Ms. Bose
December 6, 2018
Page Two

SA1-1 cont'd

Furthermore, it is strongly recommended that FERC be the party contacting the Tribes and that the list of Tribes be expanded to include the Jena Band of Choctaw Indians, the Choctaw Nation of Oklahoma, the Chickasaw Nation, the Tunica-Biloxi Tribe of Louisiana, the Muscogee (Creek) Nation, and the Quapaw Tribe of Oklahoma in addition to the Mississippi Band of Choctaw Indians and the Eastern Band of Cherokee Indians for inadvertent discoveries and the discovery and/or disturbance of human remains

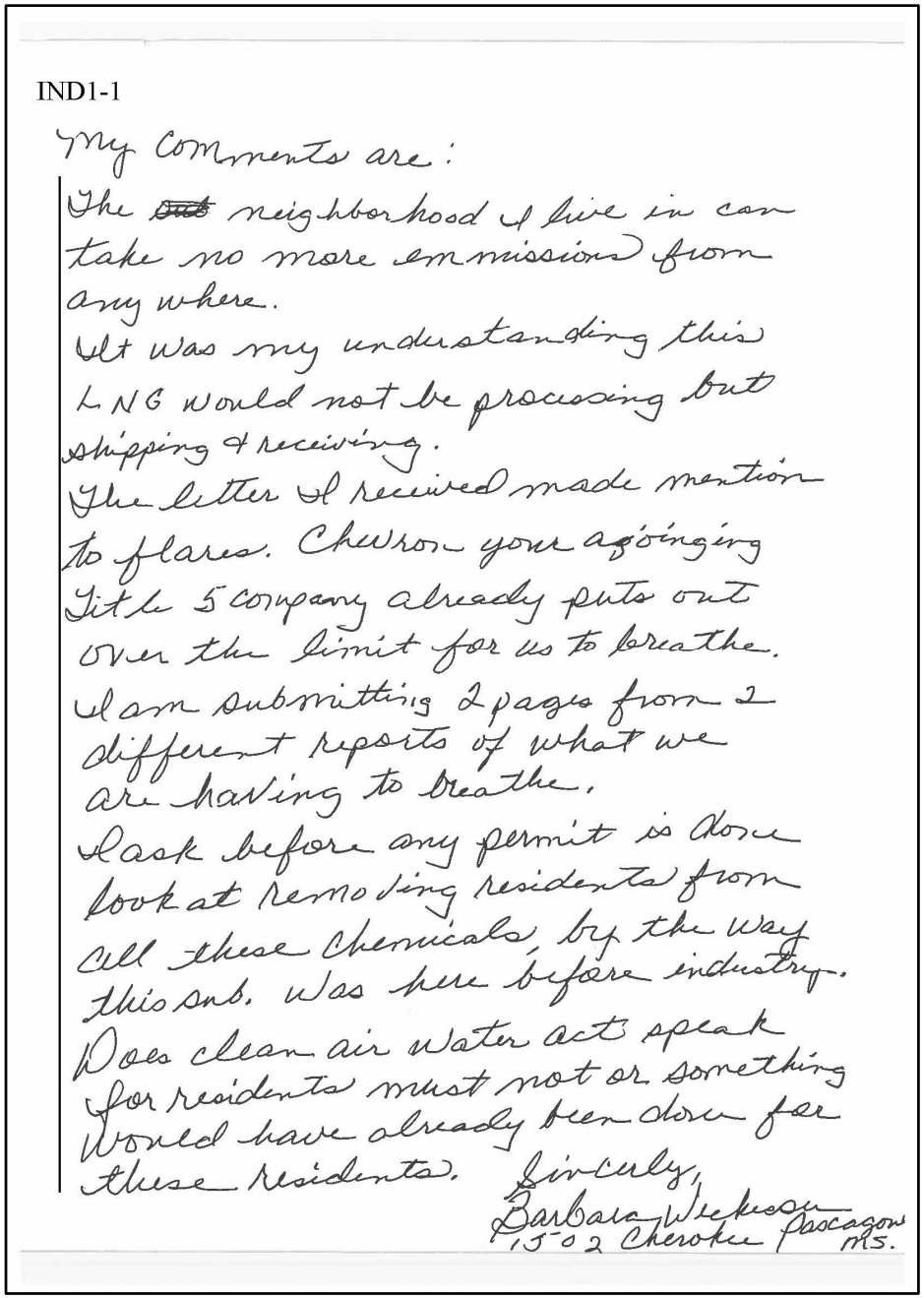
Should there be additional work in connection with the project, or any changes in the scope of work, please let us know in order that we may provide you with appropriate comments in compliance with the above referenced regulations.

If you have any questions, please do not hesitate to contact us at (601) 576-6940.

Sincerely,

Hal Bell
Review and Compliance Officer

FOR: Katie Blount
State Historic Preservation Officer



IND1-1

My Comments are:

The ~~out~~ neighborhood I live in can take no more emmissions from any where.

It was my understanding this LNG would not be processing but shipping & receiving.

The letter I received made mention to flares. Chevron your agoinging Title 5 company already puts out over the limit for us to breathe.

I am submitting 2 pages from 2 different reports of what we are having to breathe.

I ask before any permit is done look at removing residents from all these chemicals, by the way this sub. was here before industry.

Does clean air water act speak for residents must not or something would have already been done for these residents.

Sincerly,
Barbara Weckesser
1502 Cherokee Pascagoula MS.

IND1-1 The commenter's statements regarding Chevron are acknowledged. See table 4.13.1-1 and sections 4.13.1.3 and 4.13.2.13 of the EIS.

As detailed in section 4.11, Gulf LNG conducted air dispersion modeling for compliance with the NAAQS and PSD increments as required before issuance of the air quality permit. The Clean Air Act identifies two types of NAAQS. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. These standards reflect the latest scientific knowledge and have an adequate margin of safety intended to address uncertainties and provide a reasonable degree of protection. The EPA is continually researching the underlying causes of specific health effects in order to development and design strategies to protect children and adults from air pollutants and improve community health. Sources subject to PSD, such as Gulf LNG, have more stringent regulations to prevent the air quality in clean areas from deteriorating to the level set by the NAAQS. NAAQS are a maximum allowable concentrations, and PSD increments are the maximum allowable increases in concentration that are allowed to occur above baseline concentrations for a pollutant. This process ensures that an adequate level of modeling is conducted to protect human health and welfare, and to preserve existing clean air resources.

INDIVIDUAL COMMENTS

IND1 – Barbara Weckesser

IND1-1
cont'd

BARBARA WECKESSER

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: Harry Howell
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID: 361701058
Sample(s) Received: 5/2/2017
Date of Reporting: 5/16/2017
Date Printed: 5/16/2017
Reported By: V. Dow
Email: hhowell@micromethodslab.com

- Laboratory Report -

Full Particle Identification

Project: Barbara Weckesser Outdoor Dust

Conclusions:

- The material in sample "01" is composed of a mixture of components.
- One main component is a dark brown/black vitreous material; the morphology and elemental composition are consistent with abrasives particles typically used in sandblasting.
- The sample also contains pollen, quartz, and calcite/dolomite.
- Gypsum/anhydrite, clays/feldspars, rust/iron oxides, titanium dioxide/paint, processed cellulose, natural cellulose, and wood were identified in lesser amounts.
- Zinc oxide, fibrous glass, paper pulp, starch, and skin fragments were identified as minor components.

Procurement of Samples and Analytical Overview:

The material for analysis (one wipe sample total) arrived at EMSL Analytical (Cinnaminson, NJ) on May 2, 2017. The package arrived in satisfactory condition with no evidence of damage to the contents. The purpose of the analysis is to determine the identification of the individual components. The data reported herein has been obtained using the following equipment and methodologies.

Methods & Equipment:
Polarized Light Microscopy (PLM)
Stereo Microscopy
Scanning Electron Microscopy (SEM)
Energy-dispersive X-Ray Spectrometry (EDX)

Analyzed by: Virginia Dow — May 16, 2017
Virginia Dow, Laboratory Analyst — Date

Reviewed/Approved: — May 16, 2017
Eugenia Mirica, Ph.D., Laboratory Manager — Date

-Micro-Methods Labs, Inc. - 361701058 - Page 1 of 7 -

IND1-1
cont'd

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: Harry Howell
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID: 361701058
Sample(s) Received: 5/2/2017
Date of Reporting: 5/16/2017
Date Printed: 5/16/2017
Reported By: V. Dow
Email: hhowell@micromethodslab.com

Results:

EMSL Sample Identification:	361701058-0001
Sample Identification:	01
Sample Description:	Patio Chair Dust Wipe

Common Minerals/Construction Dust:	(%)	Fibrous Particulate:		(%)
Quartz	20	Asbestos:	(Total)	ND
Calcite/Dolomite	15	MMVF's:	Fibrous Glass	<1
Gypsum/Anhydrite	2		Mineral Wool	ND
Clays/Feldspars	2		RCF's	ND
Mica	ND	Cellulosic:	Processed/Cotton	1
Rust/Iron Oxides	5		Natural	1
Titanium Dioxide/Paint	2		Wood	1
Aluminum Oxide/Hydroxides	ND		Paper Pulp	<1
Zinc Oxide	<1		Starch	<1
		Synthetic:	(Total)	ND
		Hair:	Human	ND
			Animal	ND

Biological:	(%)	Additional Particulate:		(%)
Mold	ND	(sample specific)	Vitreous Material*	25
Pollen	20			
Diatoms	ND			
Insect Fragments	ND			
Dust Mites	ND			
Skin Fragments	<1			
Unidentified Inert Organics:	1		Unidentified Inorganics:	ND

LOQ: 1%

*- This vitreous material shows chemical composition and morphology that suggests it could be an abrasive sandblasting material. See Figure 3 for elemental composition.

IND1-1
cont'd

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: Harry Howell
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID: 361701058
Sample(s) Received: 5/2/2017
Date of Reporting: 5/16/2017
Date Printed: 5/16/2017
Reported By: V. Dow
Email: hhowell@micromethodslab.com

Definitions:

Quartz: Crystalline form of silicon dioxide/silica (SiO_2), the second most common mineral in Earth's crust; commonly found in sand/soils, various rocks, concrete and mortar.

Calcite/Dolomite: A mineral which contains calcium carbonate ($CaCO_3$). This is an abundant mineral on the earth surface. Dolomite is a mineral which contains calcium magnesium carbonate $CaMg(CO_3)_2$. Calcite and dolomite are very similar minerals, used for ornamental stones, in concrete mixes, in soil remediation projects.

Gypsum: Calcium sulfate dehydrate mineral ($CaSO_4 \cdot 2H_2O$) commonly used for wallboard in buildings; concrete for highways, bridges, soil conditioner.

Clays: Large group of hydrous silicates composed mainly of silica, alumina, and water with varying amount of iron, alkaline, and alkaline earth elements; used commonly in construction materials, manufacturing of paper, refractories, rubber, dinnerware and pottery, floor and wall tile, sanitary wear, absorbent and filtering materials, and cosmetics.

Rust/Iron Oxides: A mixture of iron oxides formed by the redox reaction of iron (from metal surfaces) and oxygen (from air) in the presence of water or air moisture.

MMVF's (Man Made Vitreous fibers): Synthetic vitreous/amorphous inorganic fibrous materials, primarily silica-based containing various amounts of other oxides (e.g., aluminum, boron, calcium, or iron oxides). Fibrous glass and mineral wool are typically used as insulating materials.

IND1-1
cont'd

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: *Harry Howell*
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID:	361701058
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Reported By:	V. Dow
Email:	hhowell@micromethodslab.com

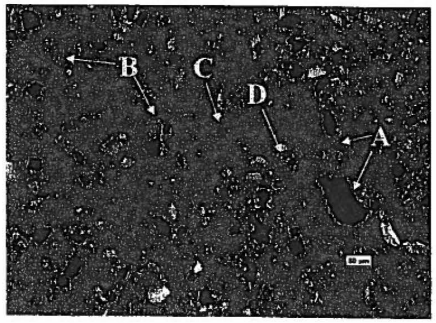

Figure 1: PLM image of particles in sample "01"
A: Vitreous Material (See Figure 3 for elemental composition)
B: Quartz
C: Pollen
D: Calcite/Dolomite

-Micro-Methods Labs, Inc. - 361701058 - Page 4 of 7 -

INDIVIDUAL COMMENTS

IND1 – Barbara Weckesser

IND1-1
cont'd

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: Harry Howell
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID: 361701058
Sample(s) Received: 5/2/2017
Date of Reporting: 5/16/2017
Date Printed: 5/16/2017
Reported By: V. Dow
Email: hhowell@micromethodslab.com

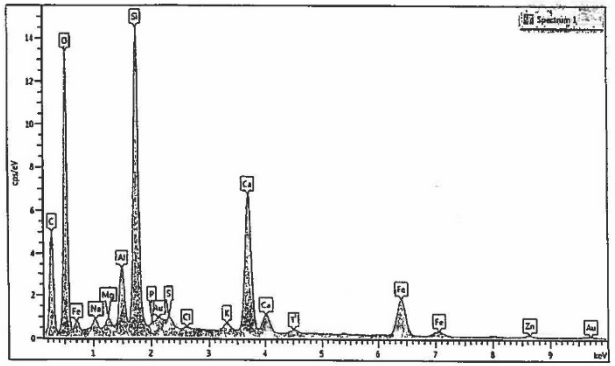

Figure 2: Overall SEM/EDX elemental spectrum of material from sample "01" showing silicon (Si) and oxygen (O) as the main components. Carbon (C), sodium (Na), magnesium (Mg), aluminum (Al), phosphorus (P), sulfur (S), chlorine (Cl), potassium (K), calcium (Ca), titanium (Ti), iron (Fe), and zinc (Zn) are also present. The sample was coated with gold (Au) to minimize electron charging.

IND1-1
cont'd

EMSL Analytical, Inc.

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Phone (856) 858-4800

Attn.: Harry Howell
Micro-Methods Labs, Inc.
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EMSL Order ID: 361701058
Sample(s) Received: 5/2/2017
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Date Printed: 5/16/2017
Reported By: V. Dow
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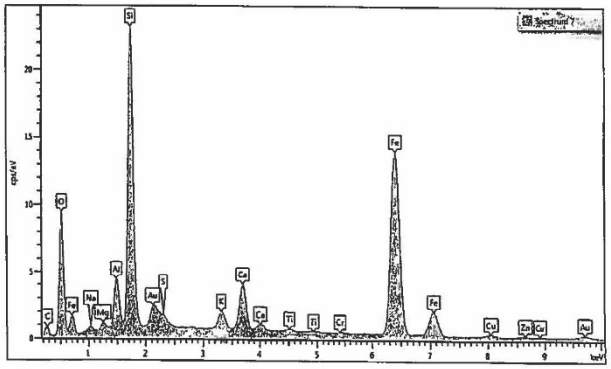


Figure 3: SEM/EDX elemental spectrum of vitreous material from sample "01" showing silicon (Si) and iron (Fe) as the main components, most likely as oxides. Carbon (C), sodium (Na), magnesium (Mg), aluminum (Al), sulfur (S), potassium (K), calcium (Ca), are also present, along with very low amounts of titanium (Ti), chromium (Cr), copper (Cu), and zinc (Zn). The sample was coated with gold (Au) to minimize electron charging.

IND1-1
cont'd

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800

Attn.: *Harry Howell*
Micro-Methods Labs, Inc.
6500 Sunplex Drive
Ocean Springs, MS 39564

Phone: 228-875-6420 Fax: 228-875-6423

EMSL Order ID:	361701058
Sample(s) Received:	5/2/2017
Date of Reporting:	5/16/2017
Date Printed:	5/16/2017
Reported By:	V. Dow
Email:	hhowell@micromethodslab.com

Descriptions & Definitions:

None Detected (ND) denotes the absence of analyte in the subsample analyzed.

Limit of Detection (LOD): The minimum concentration that can be theoretically achieved for a given analytical procedure in the absence of matrix or sample processing effects. Particle analysis is limited to a single occurrence of an analyte particle in the sub-sample analyzed.

Limit of Quantitation (LOQ): The minimum concentration of an analyte that can be measured within specified limits of precision and accuracy during routine laboratory operating conditions

Trace concentration: denotes the presence of an analyte above LOD but below LOQ. When results are reported as Trace Concentration, at least one particle was detected in the collection of particles that represents the sample.

Concentrations for bulk samples are derived from Visual Area Estimation (VAE) unless otherwise noted. Air sample concentrations are calculated to particles per unit volume.

VAE technique estimates the relative projected area of a certain type of particulate from a mixture of particulate by comparison to data derived from analysis of calibration materials having similar texture and particulate content. Due to bi-dimensional nature of the measurements, in some cases the particle thickness could affect the results.

Important Terms, Conditions, and Limitations:

Sample Retention: Samples analyzed by EMSL will be retained for 60 days after analysis date. Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling may be returned to the client immediately. EMSL reserves the right to charge a sample disposal or return shipping fee.

Change Orders and Cancellation: All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

Warranty: EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures, when available. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

Limits of Liability: In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. EMSL will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to insure that a valid sample is taken for analysis. Any resampling performed will be at the sole discretion of EMSL, the cost of which shall be limited to the reasonable value of the original sample delivery group (SDG) samples. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder.

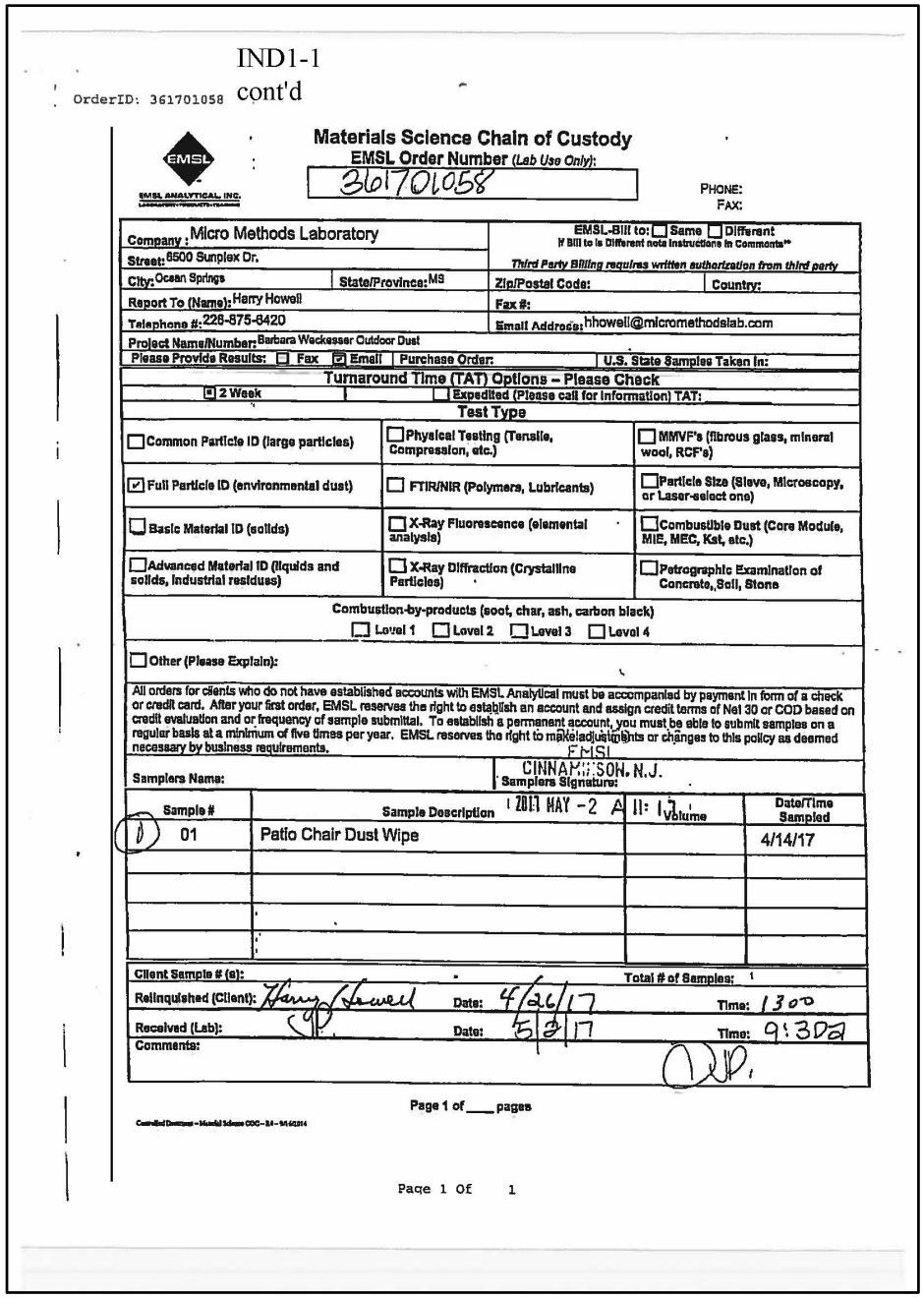
The data and other information contained in this report, as well as any accompanying documents, represent only the samples analyzed. They are reported upon the condition that they are not to be reproduced wholly or in part for advertising or other purposes without the written approval from the laboratory.

-Micro-Methods Labs, Inc. - 361701058 - Page 7 of 7-

INDIVIDUAL COMMENTS

IND1 – Barbara Weckesser

IND1-1
cont'd



OrderID: 361701058

Materials Science Chain of Custody

EMSL Order Number (Lab Use Only): 361701058

EMSL ANALYTICAL, INC.

PHONE:
FAX:

Company: Micro Methods Laboratory	EMSL-Bill to: ☐ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 6500 Sunplex Dr.	*Third Party Billing requires written authorization from third party*
City: Ocean Springs State/Province: MS	Zip/Postal Code: Country:
Report To (Name): Harry Howell	Fax #:
Telephone #: 228-875-8420	Email Address: hhowell@micromethodslab.com
Project Name/Number: Barbara Weckesser Outdoor Dust	
Please Provide Results: ☐ Fax ☑ Email Purchase Order:	U.S. State Samples Taken In:

Turnaround Time (TAT) Options – Please Check

☑ 2 Week ☐ Expedited (Please call for information) TAT:

Test Type

☐ Common Particle ID (large particles)	☐ Physical Testing (Tensile, Compression, etc.)	☐ MMVF's (fibrous glass, mineral wool, RCF's)
☑ Full Particle ID (environmental dust)	☐ FTIR/NIR (Polymers, Lubricants)	☐ Particle Size (Sieve, Microscopy, or Laser-select one)
☐ Basic Material ID (solids)	☐ X-Ray Fluorescence (elemental analysis)	☐ Combustible Dust (Core Module, MIE, MEC, Kst, etc.)
☐ Advanced Material ID (liquids and solids, industrial residues)	☐ X-Ray Diffraction (Crystalline Particles)	☐ Petrographic Examination of Concrete, Soil, Stone

Combustion-by-products (soot, char, ash, carbon black)
☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4

☐ Other (Please Explain):

All orders for clients who do not have established accounts with EMSL Analytical must be accompanied by payment in form of a check or credit card. After your first order, EMSL reserves the right to establish an account and assign credit terms of Net 30 or COD based on credit evaluation and or frequency of sample submittal. To establish a permanent account, you must be able to submit samples on a regular basis at a minimum of five times per year. EMSL reserves the right to make adjustments or changes to this policy as deemed necessary by business requirements.

Samplers Name: CINNAMISON, N.J. Samplers Signature:

EMSL
2017 MAY -2 A 11:17

Sample #	Sample Description	Volume	Date/Time Sampled
01	Patio Chair Dust Wipe		4/14/17

Client Sample # (s): Total # of Samples: 1

Relinquished (Client): Harry Howell Date: 4/26/17 Time: 1300

Received (Lab): Date: 5/2/17 Time: 9:30a

Comments:

Page 1 of ___ pages

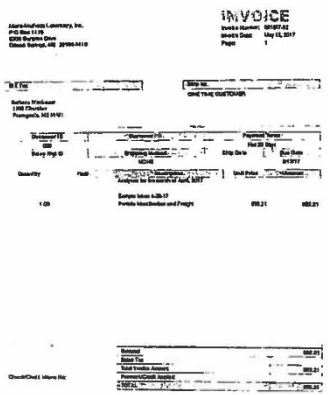
Page 1 Of 1

INDIVIDUAL COMMENTS

IND1 – Barbara Weckesser

IND1-1
cont'd

Barbara Weckesser 051817-02... 1 /1



https://mg.mail.yahoo.com/neo/ie_blank 5/18/2017

IND1-1
cont'd

BARBARA WECKESSER

ERG

Eastern Research Group
601 Keystone Park Drive
Suite 700
Morrisville, NC 27560

December 15, 2016

Mr. B.J. Hailey
U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
Project Name: CCPG-MS

Dear Mr. B.J. Hailey,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 10/07/16 11:43 through 11/04/16 11:19.

The test results in this report are in compliance with NELAC accreditation requirements for the certified parameters. All analyses were performed as described in the US EPA-approved QAPP, under the contract for UATMP, NATTS, CSATAM, PAMS and NMOC support (US EPA Contract No. EP-D-14-030). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift
Program Manager
julie.swift@erg.com

Page 1 of 31

IND1-1
cont'd

ERG

CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

ANALYTICAL REPORT FOR SAMPLES

SampleName	LabNumber	Matrix	Sampled	Received
CCPG-MS D2	6100715-02	Air	10/04/16 23:50	10/07/16 11:43
CCPG-MS D1	6102801-01	Air	10/27/16 09:51	10/28/16 12:14
CCPG-MS D2	6102801-02	Air	10/27/16 09:53	10/28/16 12:14
CCPG-MS C1	6110404-01	Air	11/02/16 12:53	11/04/16 11:19
CCPG-MS C2	6110404-02	Air	11/02/16 12:53	11/04/16 11:19

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Page 2 of 31

IND1-1
cont'd

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CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D2 **Lab ID:** 6100715-02 **Sampled:** 10/04/16 23:50
Pressure @ Receipt: 7.00" Hg **Canister #:** SAT036 **Received:** 10/07/16 11:43
Comments: Dup 2 **Analyzed:** 10/12/16 17:41

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Acetylene	**0.196**	**0.21**		**0.029**
Propylene	**1.79**	**3.09**		**0.054**
Dichlorodifluoromethane	**0.411**	**2.04**		**0.020**
Chloromethane	**0.525**	**1.09**		**0.034**
Dichlorotetrafluoroethane	0.028	0.20	U	0.031
Vinyl chloride	0.009	0.02	U	0.032
1,3-Butadiene	0.016	0.04	U	0.026
Bromomethane	0.012	0.05	U	0.025
Chloroethane	**0.029**	**0.08**		**0.029**
Acetonitrile	**0.126**	**0.21**		**0.051**
Acrolein	ND	ND	INT, U	0.120
Trichlorofluoromethane	**0.221**	**1.24**		**0.020**
Acrylonitrile	ND	ND	U	0.030
1,1-Dichloroethene	ND	ND	U	0.023
Dichloromethane	**0.108**	**0.38**		**0.021**
Carbon Disulfide	**0.027**	**0.08**		**0.020**
Trichlorotrifluoroethane	**0.065**	**0.50**		**0.017**
trans-1,2-Dichloroethylene	ND	ND	U	0.012
1,1-Dichloroethane	ND	ND	U	0.012
Methyl tert-Butyl Ether	ND	ND	U	0.009
Chloroprene	ND	ND	U	0.010
cis-1,2-Dichloroethylene	ND	ND	U	0.014
Bromochloromethane	**0.034**	**0.18**		**0.013**
Chloroform	**0.022**	**0.11**		**0.012**
Ethyl tert-Butyl Ether	ND	ND	U	0.012
1,2-Dichloroethane	**0.013**	**0.05**		**0.013**
1,1,1-Trichloroethane	0.003	0.02	U	0.015
Benzene	**0.402**	**1.29**		**0.021**
Carbon Tetrachloride	**0.058**	**0.37**		**0.016**
tert-Amyl Methyl Ether	ND	ND	U	0.017
1,2-Dichloropropane	ND	ND	U	0.019
Ethyl Acrylate	ND	ND	U	0.027
Bromodichloromethane	ND	ND	U	0.019
Trichloroethylene	ND	ND	U	0.016
Methyl Methacrylate	ND	ND	U	0.027
cis-1,3-Dichloropropene	ND	ND	U	0.020
Methyl Isobutyl Ketone	**0.109**	**0.45**		**0.022**
trans-1,3-Dichloropropene	ND	ND	U	0.027
1,1,2-Trichloroethane	ND	ND	U	0.020
Toluene	**1.82**	**6.87**		**0.017**
Dibromochloromethane	ND	ND	U	0.021

Eastern Research Group

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Page 3 of 31

IND1-1
cont'd

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515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D2 **Lab ID:** 6100715-02 **Sampled:** 10/04/16 23:50
Pressure @ Receipt: 7.00" Hg **Canister #:** SAT036 **Received:** 10/07/16 11:43
Comments: Dup 2 **Analyzed:** 10/12/16 17:41

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	ND	ND	U	0.021
n-Octane	**0.116**	**0.54**		**0.018**
Tetrachloroethylene	**0.044**	**0.30**		**0.016**
Chlorobenzene	ND	ND	U	0.020
Ethylbenzene	**0.179**	**0.78**		**0.019**
m,p-Xylene	**0.743**	**3.23**		**0.040**
Bromoform	ND	ND	U	0.024
Styrene	**0.068**	**0.29**		**0.021**
1,1,2,2-Tetrachloroethane	ND	ND	U	0.030
o-Xylene	**0.302**	**1.31**		**0.020**
1,3,5-Trimethylbenzene	**0.134**	**0.66**		**0.024**
1,2,4-Trimethylbenzene	**0.416**	**2.05**		**0.024**
m-Dichlorobenzene	ND	ND	U	0.024
p-Dichlorobenzene	0.012	0.07	U	0.023
o-Dichlorobenzene	ND	ND	U	0.027
1,2,4-Trichlorobenzene	ND	ND	U	0.035
Hexachloro-1,3-butadiene	ND	ND	U	0.042

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Page 4 of 31

IND1-1
cont'd

ERG

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515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D1 **Lab ID:** 6102801-01 **Sampled:** 10/27/16 09:51
Pressure @ Receipt: 8.00" Hg **Canister #:** 5132 **Received:** 10/28/16 12:14
Comments: **Analyzed:** 11/03/16 19:22

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Acetylene	**0.296**	**0.32**		**0.029**
Propylene	**4.09**	**7.05**		**0.054**
Dichlorodifluoromethane	**0.537**	**2.66**		**0.020**
Chloromethane	**0.721**	**1.49**		**0.034**
Dichlorotetrafluoroethane	**0.060**	**0.42**		**0.031**
Vinyl chloride	0.029	0.07	U	0.032
1,3-Butadiene	**0.029**	**0.06**		**0.026**
Bromomethane	**0.025**	**0.10**		**0.025**
Chloroethane	**0.109**	**0.29**		**0.029**
Acetonitrile	**0.298**	**0.50**		**0.051**
Acrolein	ND	ND	INT, U	0.120
Trichlorofluoromethane	**0.314**	**1.77**		**0.020**
Acrylonitrile	ND	ND	U	0.030
1,1-Dichloroethene	ND	ND	U	0.023
Dichloromethane	**0.104**	**0.36**		**0.021**
Carbon Disulfide	**0.022**	**0.07**		**0.020**
Trichlorotrifluoroethane	**0.083**	**0.64**		**0.017**
trans-1,2-Dichloroethylene	ND	ND	U	0.012
1,1-Dichloroethane	ND	ND	U	0.012
Methyl tert-Butyl Ether	ND	ND	U	0.009
Chloroprene	ND	ND	U	0.010
cis-1,2-Dichloroethylene	ND	ND	U	0.014
Bromochloromethane	**0.079**	**0.42**		**0.013**
Chloroform	**0.040**	**0.20**		**0.012**
Ethyl tert-Butyl Ether	ND	ND	U	0.012
1,2-Dichloroethane	**0.022**	**0.09**		**0.013**
1,1,1-Trichloroethane	0.008	0.04	U	0.015
Benzene	**0.355**	**1.14**		**0.021**
Carbon Tetrachloride	**0.115**	**0.73**		**0.016**
tert-Amyl Methyl Ether	ND	ND	U	0.017
1,2-Dichloropropane	ND	ND	U	0.019
Ethyl Acrylate	ND	ND	U	0.027
Bromodichloromethane	ND	ND	U	0.019
Trichloroethylene	ND	ND	U	0.016
Methyl Methacrylate	ND	ND	U	0.027
cis-1,3-Dichloropropene	ND	ND	U	0.020
Methyl Isobutyl Ketone	**0.144**	**0.59**		**0.022**
trans-1,3-Dichloropropene	ND	ND	U	0.027
1,1,2-Trichloroethane	ND	ND	U	0.020
Toluene	**1.42**	**5.36**		**0.017**
Dibromochloromethane	0.005	0.04	U	0.021

Eastern Research Group

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Page 5 of 31

IND1-1
cont'd

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Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D1 **Lab ID:** 6102801-01 **Sampled:** 10/27/16 09:51
Pressure @ Receipt: 8.00" Hg **Canister #:** 5132 **Received:** 10/28/16 12:14
Comments: **Analyzed:** 11/03/16 19:22

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	ND	ND	U	0.021
n-Octane	**0.100**	**0.47**		**0.018**
Tetrachloroethylene	0.009	0.06	U	0.016
Chlorobenzene	ND	ND	U	0.020
Ethylbenzene	**0.183**	**0.80**		**0.019**
m,p-Xylene	**0.600**	**2.61**		**0.040**
Bromoform	ND	ND	U	0.024
Styrene	**0.037**	**0.16**		**0.021**
1,1,2,2-Tetrachloroethane	ND	ND	U	0.030
o-Xylene	**0.233**	**1.01**		**0.020**
1,3,5-Trimethylbenzene	**0.122**	**0.60**		**0.024**
1,2,4-Trimethylbenzene	**0.304**	**1.50**		**0.024**
m-Dichlorobenzene	ND	ND	U	0.024
p-Dichlorobenzene	ND	ND	U	0.023
o-Dichlorobenzene	ND	ND	U	0.027
1,2,4-Trichlorobenzene	ND	ND	U	0.035
Hexachloro- 1,3-butadiene	ND	ND	U	0.042

Eastern Research Group

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Page 6 of 31

IND1-1
cont'd

ERG

CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D2 **Lab ID:** 6102801-02 **Sampled:** 10/27/16 09:53
Pressure @ Receipt: 8.50" Hg **Canister #:** 5069 **Received:** 10/28/16 12:14
Comments: Dup 2 **Analyzed:** 11/03/16 20:25

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Acetylene	**0.318**	**0.34**		**0.029**
Propylene	**4.09**	**7.05**		**0.054**
Dichlorodifluoromethane	**0.551**	**2.73**		**0.020**
Chloromethane	**0.700**	**1.45**		**0.034**
Dichlorotetrafluoroethane	**0.062**	**0.43**		**0.031**
Vinyl chloride	0.026	0.07	U	0.032
1,3-Butadiene	**0.029**	**0.06**		**0.026**
Bromomethane	**0.025**	**0.10**		**0.025**
Chloroethane	**0.087**	**0.23**		**0.029**
Acetonitrile	**0.159**	**0.27**		**0.051**
Acrolein	**0.721**	**1.66**	D-F	**0.120**
Trichlorofluoromethane	**0.326**	**1.84**		**0.020**
Acrylonitrile	ND	ND	U	0.030
1,1-Dichloroethene	ND	ND	U	0.023
Dichloromethane	**0.132**	**0.46**		**0.021**
Carbon Disulfide	0.014	0.04	U	0.020
Trichlorotrifluoroethane	**0.084**	**0.65**		**0.017**
trans-1,2-Dichloroethylene	ND	ND	U	0.012
1,1-Dichloroethane	ND	ND	U	0.012
Methyl tert-Butyl Ether	ND	ND	U	0.009
Chloroprene	ND	ND	U	0.010
cis-1,2-Dichloroethylene	ND	ND	U	0.014
Bromochloromethane	**0.078**	**0.41**		**0.013**
Chloroform	**0.042**	**0.21**		**0.012**
Ethyl tert-Butyl Ether	ND	ND	U	0.012
1,2-Dichloroethane	**0.022**	**0.09**		**0.013**
1,1,1-Trichloroethane	0.008	0.04	U	0.015
Benzene	**0.335**	**1.07**		**0.021**
Carbon Tetrachloride	**0.117**	**0.74**		**0.016**
tert-Amyl Methyl Ether	ND	ND	U	0.017
1,2-Dichloropropane	ND	ND	U	0.019
Ethyl Acrylate	ND	ND	U	0.027
Bromodichloromethane	ND	ND	U	0.019
Trichloroethylene	ND	ND	U	0.016
Methyl Methacrylate	ND	ND	U	0.027
cis-1,3-Dichloropropene	ND	ND	U	0.020
Methyl Isobutyl Ketone	**0.067**	**0.28**		**0.022**
trans-1,3-Dichloropropene	ND	ND	U	0.027
1,1,2-Trichloroethane	ND	ND	U	0.020
Toluene	**1.46**	**5.51**		**0.017**
Dibromochloromethane	0.005	0.04	U	0.021

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U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS D2 **Lab ID:** 6102801-02 **Sampled:** 10/27/16 09:53
Pressure @ Receipt: 8.50" Hg **Canister #:** 5069 **Received:** 10/28/16 12:14
Comments: Dup 2 **Analyzed:** 11/03/16 20:25

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	ND	ND	U	0.021
n-Octane	**0.082**	**0.38**		**0.018**
Tetrachloroethylene	0.009	0.06	U	0.016
Chlorobenzene	ND	ND	U	0.020
Ethylbenzene	**0.188**	**0.82**		**0.019**
m,p-Xylene	**0.633**	**2.75**		**0.040**
Bromoform	ND	ND	U	0.024
Styrene	**0.040**	**0.17**		**0.021**
1,1,2,2-Tetrachloroethane	ND	ND	U	0.030
o-Xylene	**0.241**	**1.05**		**0.020**
1,3,5-Trimethylbenzene	**0.128**	**0.63**		**0.024**
1,2,4-Trimethylbenzene	**0.309**	**1.52**		**0.024**
m-Dichlorobenzene	ND	ND	U	0.024
p-Dichlorobenzene	ND	ND	U	0.023
o-Dichlorobenzene	ND	ND	U	0.027
1,2,4-Trichlorobenzene	ND	ND	U	0.035
Hexachloro-1,3-butadiene	ND	ND	U	0.042

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515 East Amite Street
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ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS C1 **Lab ID:** 6110404-01 **Sampled:** 11/02/16 12:53
Pressure @ Receipt: 8.00" Hg **Canister #:** SAT028 **Received:** 11/04/16 11:19
Comments: Col 1 **Analyzed:** 11/09/16 15:42

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Acetylene	**0.167**	**0.18**		**0.029**
Propylene	**2.42**	**4.17**		**0.054**
Dichlorodifluoromethane	**0.427**	**2.12**		**0.020**
Chloromethane	**0.455**	**0.94**		**0.034**
Dichlorotetrafluoroethane	**0.038**	**0.27**		**0.031**
Vinyl chloride	0.015	0.04	U	0.032
1,3-Butadiene	0.016	0.04	U	0.026
Bromomethane	0.020	0.08	U	0.025
Chloroethane	**0.037**	**0.10**		**0.029**
Acetonitrile	**0.100**	**0.17**		**0.051**
Acrolein	**0.282**	**0.65**		**0.120**
Trichlorofluoromethane	**0.241**	**1.36**		**0.020**
Acrylonitrile	ND	ND	U	0.030
1,1-Dichloroethene	0.007	0.03	U	0.023
Dichloromethane	**0.077**	**0.27**		**0.021**
Carbon Disulfide	**0.034**	**0.11**		**0.020**
Trichlorotrifluoroethane	**0.075**	**0.58**		**0.017**
trans-1,2-Dichloroethylene	0.009	0.04	U	0.012
1,1-Dichloroethane	**0.012**	**0.05**		**0.012**
Methyl tert-Butyl Ether	**0.010**	**0.04**		**0.009**
Chloroprene	ND	ND	U	0.010
cis-1,2-Dichloroethylene	ND	ND	U	0.014
Bromochloromethane	**0.042**	**0.22**		**0.013**
Chloroform	**0.028**	**0.14**		**0.012**
Ethyl tert-Butyl Ether	0.009	0.04	U	0.012
1,2-Dichloroethane	**0.025**	**0.10**		**0.013**
1,1,1-Trichloroethane	0.011	0.06	U	0.015
Benzene	**0.629**	**2.01**		**0.021**
Carbon Tetrachloride	**0.106**	**0.67**		**0.016**
tert-Amyl Methyl Ether	ND	ND	U	0.017
1,2-Dichloropropane	0.015	0.07	U	0.019
Ethyl Acrylate	ND	ND	U	0.027
Bromodichloromethane	ND	ND	U	0.019
Trichloroethylene	0.015	0.08	U	0.016
Methyl Methacrylate	ND	ND	U	0.027
cis-1,3-Dichloropropene	ND	ND	U	0.020
Methyl Isobutyl Ketone	**0.052**	**0.21**		**0.022**
trans-1,3-Dichloropropene	ND	ND	U	0.027
1,1,2-Trichloroethane	0.012	0.07	U	0.020
Toluene	**2.06**	**7.78**		**0.017**
Dibromochloromethane	0.012	0.10	U	0.021

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ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS C1 **Lab ID:** 6110404-01 **Sampled:** 11/02/16 12:53
Pressure @ Receipt: 8.00" Hg **Canister #:** SAT028 **Received:** 11/04/16 11:19
Comments: Col 1 **Analyzed:** 11/09/16 15:42

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	0.010	0.08	U	0.021
n-Octane	**0.088**	**0.41**		**0.018**
Tetrachloroethylene	0.013	0.09	U	0.016
Chlorobenzene	0.011	0.05	U	0.020
Ethylbenzene	**0.397**	**1.73**		**0.019**
m,p-Xylene	**1.55**	**6.74**		**0.040**
Bromoform	0.014	0.15	U	0.024
Styrene	0.015	0.06	U	0.021
1,1,2,2-Tetrachloroethane	ND	ND	U	0.030
o-Xylene	**0.513**	**2.23**		**0.020**
1,3,5-Trimethylbenzene	**0.440**	**2.17**		**0.024**
1,2,4-Trimethylbenzene	**0.931**	**4.59**		**0.024**
m-Dichlorobenzene	0.012	0.07	U	0.024
p-Dichlorobenzene	0.014	0.08	U	0.023
o-Dichlorobenzene	0.012	0.07	U	0.027
1,2,4-Trichlorobenzene	0.018	0.13	U	0.035
Hexachloro-1,3-butadiene	0.013	0.14	U	0.042

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PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS C2 **Lab ID:** 6110404-02 **Sampled:** 11/02/16 12:53
Pressure @ Receipt: 8.50" Hg **Canister #:** 5108 **Received:** 11/04/16 11:19
Comments: Col 2 **Analyzed:** 11/09/16 16:40

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Acetylene	**0.179**	**0.19**		**0.029**
Propylene	**2.60**	**4.48**		**0.054**
Dichlorodifluoromethane	**0.452**	**2.24**		**0.020**
Chloromethane	**0.496**	**1.03**		**0.034**
Dichlorotetrafluoroethane	**0.038**	**0.27**		**0.031**
Vinyl chloride	0.015	0.04	U	0.032
1,3-Butadiene	0.012	0.03	U	0.026
Bromomethane	0.019	0.07	U	0.025
Chloroethane	**0.037**	**0.10**		**0.029**
Acetonitrile	**0.102**	**0.17**		**0.051**
Acrolein	**0.519**	**1.19**		**0.120**
Trichlorofluoromethane	**0.251**	**1.41**		**0.020**
Acrylonitrile	ND	ND	U	0.030
1,1-Dichloroethene	ND	ND	U	0.023
Dichloromethane	**0.081**	**0.28**		**0.021**
Carbon Disulfide	**0.022**	**0.07**		**0.020**
Trichlorotrifluoroethane	**0.073**	**0.56**		**0.017**
trans-1,2-Dichloroethylene	ND	ND	U	0.012
1,1-Dichloroethane	0.009	0.04	U	0.012
Methyl tert-Butyl Ether	0.006	0.02	U	0.009
Chloroprene	ND	ND	U	0.010
cis-1,2-Dichloroethylene	ND	ND	U	0.014
Bromochloromethane	**0.043**	**0.23**		**0.013**
Chloroform	**0.030**	**0.15**		**0.012**
Ethyl tert-Butyl Ether	0.007	0.03	U	0.012
1,2-Dichloroethane	**0.022**	**0.09**		**0.013**
1,1,1-Trichloroethane	0.010	0.05	U	0.015
Benzene	**0.650**	**2.08**		**0.021**
Carbon Tetrachloride	**0.108**	**0.68**		**0.016**
tert-Amyl Methyl Ether	ND	ND	U	0.017
1,2-Dichloropropane	ND	ND	U	0.019
Ethyl Acrylate	ND	ND	U	0.027
Bromodichloromethane	ND	ND	U	0.019
Trichloroethylene	0.012	0.06	U	0.016
Methyl Methacrylate	ND	ND	U	0.027
cis-1,3-Dichloropropene	ND	ND	U	0.020
Methyl Isobutyl Ketone	**0.043**	**0.18**		**0.022**
trans-1,3-Dichloropropene	ND	ND	U	0.027
1,1,2-Trichloroethane	ND	ND	U	0.020
Toluene	**2.02**	**7.63**		**0.017**
Dibromochloromethane	0.010	0.09	U	0.021

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PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Description: CCPG-MS C2 **Lab ID:** 6110404-02 **Sampled:** 11/02/16 12:53
Pressure @ Receipt: 8.50" Hg **Canister #:** 5108 **Received:** 11/04/16 11:19
Comments: Col 2 **Analyzed:** 11/09/16 16:40

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	ND	ND	U	0.021
n-Octane	**0.088**	**0.41**		**0.018**
Tetrachloroethylene	0.012	0.08	U	0.016
Chlorobenzene	0.009	0.04	U	0.020
Ethylbenzene	**0.410**	**1.78**		**0.019**
m,p-Xylene	**1.59**	**6.92**		**0.040**
Bromoform	0.010	0.10	U	0.024
Styrene	0.015	0.06	U	0.021
1,1,2,2-Tetrachloroethane	ND	ND	U	0.030
o-Xylene	**0.532**	**2.31**		**0.020**
1,3,5-Trimethylbenzene	**0.441**	**2.17**		**0.024**
1,2,4-Trimethylbenzene	**0.949**	**4.67**		**0.024**
m-Dichlorobenzene	0.008	0.05	U	0.024
p-Dichlorobenzene	0.011	0.07	U	0.023
o-Dichlorobenzene	0.008	0.05	U	0.027
1,2,4-Trichlorobenzene	0.012	0.09	U	0.035
Hexachloro-1,3-butadiene	0.010	0.11	U	0.042

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FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6J1709 - Summa Canister Prep						
Blank (B6J1709-BLK1)		Prepared: 10/04/16 Analyzed: 10/12/16				
Acetylene	ND	ppbv				U
Propylene	ND	ppbv				U
Dichlorodifluoromethane	ND	ppbv				U
Chloromethane	ND	ppbv				U
Dichlorotetrafluoroethane	ND	ppbv				U
Vinyl chloride	ND	ppbv				U
1,3-Butadiene	ND	ppbv				U
Bromomethane	ND	ppbv				U
Chloroethane	ND	ppbv				U
Acetonitrile	ND	ppbv				U
Acrolein	ND	ppbv				U
Trichlorofluoromethane	0.045	ppbv				
Acrylonitrile	ND	ppbv				U
1,1-Dichloroethene	ND	ppbv				U
Dichloromethane	ND	ppbv				U
Carbon Disulfide	ND	ppbv				U
Trichlorotrifluoroethane	ND	ppbv				U
trans-1,2-Dichloroethylene	ND	ppbv				U
1,1-Dichloroethane	ND	ppbv				U
Methyl tert-Butyl Ether	ND	ppbv				U
Chloroprene	ND	ppbv				U
cis-1,2-Dichloroethylene	ND	ppbv				U
Bromochloromethane	0.024	ppbv				
Chloroform	ND	ppbv				U
Ethyl tert-Butyl Ether	ND	ppbv				U
1,2-Dichloroethane	ND	ppbv				U
1,1,1-Trichloroethane	ND	ppbv				U
Benzene	ND	ppbv				U
Carbon Tetrachloride	ND	ppbv				U
tert-Amyl Methyl Ether	ND	ppbv				U
1,2-Dichloropropane	ND	ppbv				U
Ethyl Acrylate	ND	ppbv				U
Bromodichloromethane	ND	ppbv				U
Trichloroethylene	ND	ppbv				U
Methyl Methacrylate	ND	ppbv				U
cis-1,3-Dichloropropene	ND	ppbv				U
Methyl Isobutyl Ketone	ND	ppbv				U

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FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6J1709 - Summa Canister Prep						
Blank (B6J1709-BLK1) Continued		Prepared: 10/04/16 Analyzed: 10/12/16				
trans-1,3-Dichloropropene	ND	ppbv				U
1,1,2-Trichloroethane	ND	ppbv				U
Toluene	ND	ppbv				U
Dibromochloromethane	ND	ppbv				U
1,2-Dibromoethane	ND	ppbv				U
n-Octane	ND	ppbv				U
Tetrachloroethylene	ND	ppbv				U
Chlorobenzene	ND	ppbv				U
Ethylbenzene	ND	ppbv				U
m,p-Xylene	ND	ppbv				U
Bromoform	ND	ppbv				U
Styrene	ND	ppbv				U
1,1,2,2-Tetrachloroethane	ND	ppbv				U
o-Xylene	ND	ppbv				U
1,3,5-Trimethylbenzene	ND	ppbv				U
1,2,4-Trimethylbenzene	ND	ppbv				U
m-Dichlorobenzene	ND	ppbv				U
p-Dichlorobenzene	ND	ppbv				U
o-Dichlorobenzene	ND	ppbv				U
1,2,4-Trichlorobenzene	ND	ppbv				U
Hexachloro-1,3-butadiene	ND	ppbv				U
Batch B6K0308 - Summa Canister Prep						
Blank (B6K0308-BLK1)		Prepared: 10/27/16 Analyzed: 11/03/16				
Acetylene	ND	ppbv				U
Propylene	ND	ppbv				U
Dichlorodifluoromethane	ND	ppbv				U
Chloromethane	ND	ppbv				U
Dichlorotetrafluoroethane	0.043	ppbv				
Vinyl chloride	ND	ppbv				U
1,3-Butadiene	ND	ppbv				U
Bromomethane	ND	ppbv				U
Chloroethane	0.055	ppbv				
Acetonitrile	ND	ppbv				U
Acrolein	ND	ppbv				U
Trichlorofluoromethane	0.096	ppbv				
Acrylonitrile	ND	ppbv				U
1,1-Dichloroethene	ND	ppbv				U

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FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0308 - Summa Canister Prep						
Blank (B6K0308-BLK1) Continued		Prepared: 10/27/16 Analyzed: 11/03/16				
Dichloromethane	ND	ppbv				U
Carbon Disulfide	ND	ppbv				U
Trichlorotrifluoroethane	ND	ppbv				U
trans-1,2-Dichloroethylene	ND	ppbv				U
1,1-Dichloroethane	ND	ppbv				U
Methyl tert-Butyl Ether	ND	ppbv				U
Chloroprene	ND	ppbv				U
cis-1,2-Dichloroethylene	ND	ppbv				U
Bromochloromethane	0.076	ppbv				
Chloroform	ND	ppbv				U
Ethyl tert-Butyl Ether	ND	ppbv				U
1,2-Dichloroethane	ND	ppbv				U
1,1,1-Trichloroethane	ND	ppbv				U
Benzene	ND	ppbv				U
Carbon Tetrachloride	ND	ppbv				U
tert-Amyl Methyl Ether	ND	ppbv				U
1,2-Dichloropropane	ND	ppbv				U
Ethyl Acrylate	ND	ppbv				U
Bromodichloromethane	ND	ppbv				U
Trichloroethylene	ND	ppbv				U
Methyl Methacrylate	0.036	ppbv				
cis-1,3-Dichloropropene	ND	ppbv				U
Methyl Isobutyl Ketone	ND	ppbv				U
trans-1,3-Dichloropropene	ND	ppbv				U
1,1,2-Trichloroethane	ND	ppbv				U
Toluene	ND	ppbv				U
Dibromochloromethane	ND	ppbv				U
1,2-Dibromoethane	ND	ppbv				U
n-Octane	ND	ppbv				U
Tetrachloroethylene	ND	ppbv				U
Chlorobenzene	ND	ppbv				U
Ethylbenzene	ND	ppbv				U
m,p-Xylene	ND	ppbv				U
Bromoform	ND	ppbv				U
Styrene	ND	ppbv				U
1,1,2,2-Tetrachloroethane	ND	ppbv				U
o-Xylene	ND	ppbv				U

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CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
515 East Amite Street
Jackson, MS 39201
ATTN: Mr. B.J. Hailey
PHONE: (601) 961-5783 **FAX:** (919) 541-0516

FILE #: 0344.00
REPORTED: 12/15/16 10:23
SUBMITTED: 10/07/16 to 11/04/16
AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0308 - Summa Canister Prep						
Blank (B6K0308-BLK1) Continued			Prepared: 10/27/16 Analyzed: 11/03/16			
1,3,5-Trimethylbenzene	ND	ppbv				U
1,2,4-Trimethylbenzene	ND	ppbv				U
m-Dichlorobenzene	ND	ppbv				U
p-Dichlorobenzene	ND	ppbv				U
o-Dichlorobenzene	ND	ppbv				U
1,2,4-Trichlorobenzene	0.047	ppbv				
Hexachloro-1,3-butadiene	ND	ppbv				U
Duplicate (B6K0308-DUP3)	**Source: 6102801-01**		Prepared: 10/27/16 Analyzed: 11/03/16			
Acetylene	0.310	ppbv	0.30	4.36	25	
Propylene	4.21	ppbv	4.09	2.89	25	
Dichlorodifluoromethane	0.543	ppbv	0.54	1.07	25	
Chloromethane	0.731	ppbv	0.72	1.39	25	
Dichlorotetrafluoroethane	0.058	ppbv	0.06	3.37	25	
Vinyl chloride	ND	ppbv	ND		25	U
1,3-Butadiene	0.031	ppbv	0.03	5.71	25	
Bromomethane	ND	ppbv	ND		25	U
Chloroethane	0.110	ppbv	0.11	0.366	25	
Acetonitrile	0.293	ppbv	0.30	1.56	25	
Acrolein	ND	ppbv	ND		25	INT, U
Trichlorofluoromethane	0.317	ppbv	0.31	0.918	25	
Acrylonitrile	ND	ppbv	ND		25	U
1,1-Dichloroethene	ND	ppbv	ND		25	U
Dichloromethane	0.105	ppbv	0.10	0.287	25	
Carbon Disulfide	0.022	ppbv	0.02	0.901	25	
Trichlorotrifluoroethane	0.085	ppbv	0.08	2.51	25	
trans-1,2-Dichloroethylene	ND	ppbv	ND		25	U
1,1-Dichloroethane	ND	ppbv	ND		25	U
Methyl tert-Butyl Ether	ND	ppbv	ND		25	U
Chloroprene	ND	ppbv	ND		25	U
cis-1,2-Dichloroethylene	ND	ppbv	ND		25	U
Bromochloromethane	0.084	ppbv	0.08	6.00	25	
Chloroform	0.039	ppbv	0.04	2.53	25	
Ethyl tert-Butyl Ether	ND	ppbv	ND		25	U
1,2-Dichloroethane	0.022	ppbv	0.02	0.905	25	
1,1,1-Trichloroethane	ND	ppbv	ND		25	U
Benzene	0.360	ppbv	0.36	1.43	25	
Carbon Tetrachloride	0.116	ppbv	0.12	0.519	25	

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Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0308 - Summa Canister Prep						
Duplicate (B6K0308-DUP3) Continued	**Source: 6102801-01**	Prepared: 10/27/16	Analyzed: 11/03/16			
tert-Amyl Methyl Ether	ND	ppbv	ND		25	U
1,2-Dichloropropane	ND	ppbv	ND		25	U
Ethyl Acrylate	ND	ppbv	ND		25	U
Bromodichloromethane	ND	ppbv	ND		25	U
Trichloroethylene	ND	ppbv	ND		25	U
Methyl Methacrylate	ND	ppbv	ND		25	U
cis-1,3-Dichloropropene	ND	ppbv	ND		25	U
Methyl Isobutyl Ketone	0.149	ppbv	0.14	3.41	25	
trans-1,3-Dichloropropene	ND	ppbv	ND		25	U
1,1,2-Trichloroethane	ND	ppbv	ND		25	U
Toluene	1.46	ppbv	1.42	2.83	25	
Dibromochloromethane	ND	ppbv	ND		25	U
1,2-Dibromoethane	ND	ppbv	ND		25	U
n-Octane	0.099	ppbv	0.10	1.31	25	
Tetrachloroethylene	ND	ppbv	ND		25	U
Chlorobenzene	ND	ppbv	ND		25	U
Ethylbenzene	0.186	ppbv	0.18	1.41	25	
m,p-Xylene	0.606	ppbv	0.60	1.06	25	
Bromoform	ND	ppbv	ND		25	U
Styrene	0.037	ppbv	0.04	1.35	25	
1,1,2,2-Tetrachloroethane	ND	ppbv	ND		25	U
o-Xylene	0.234	ppbv	0.23	0.686	25	
1,3,5-Trimethylbenzene	0.122	ppbv	0.12	0.00	25	
1,2,4-Trimethylbenzene	0.306	ppbv	0.30	0.722	25	
m-Dichlorobenzene	ND	ppbv	ND		25	U
p-Dichlorobenzene	ND	ppbv	ND		25	U
o-Dichlorobenzene	ND	ppbv	ND		25	U
1,2,4-Trichlorobenzene	ND	ppbv	ND		25	U
Hexachloro-1,3-butadiene	ND	ppbv	ND		25	U
Duplicate (B6K0308-DUP4)	**Source: 6102801-02**	Prepared: 10/27/16	Analyzed: 11/03/16			
Acetylene	0.297	ppbv	0.32	6.80	25	
Propylene	3.85	ppbv	4.09	6.08	25	
Dichlorodifluoromethane	0.508	ppbv	0.55	8.24	25	
Chloromethane	0.621	ppbv	0.70	12.0	25	
Dichlorotetrafluoroethane	0.057	ppbv	0.06	9.56	25	
Vinyl chloride	ND	ppbv	ND		25	U
1,3-Butadiene	0.030	ppbv	0.03	1.02	25	

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AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0308 - Summa Canister Prep						
Duplicate (B6K0308-DUP4) Continued **Source: 6102801-02** Prepared: 10/27/16 Analyzed: 11/03/16						
Bromomethane	0.025	ppbv	0.03	0.00	25	
Chloroethane	0.086	ppbv	0.09	1.39	25	
Acetonitrile	0.157	ppbv	0.16	1.58	25	
Acrolein	0.696	ppbv	0.72	3.61	25	
Trichlorofluoromethane	0.304	ppbv	0.33	6.80	25	
Acrylonitrile	ND	ppbv	ND		25	U
1,1-Dichloroethene	ND	ppbv	ND		25	U
Dichloromethane	0.123	ppbv	0.13	7.14	25	
Carbon Disulfide	ND	ppbv	ND		25	U
Trichlorotrifluoroethane	0.078	ppbv	0.08	8.01	25	
trans-1,2-Dichloroethylene	ND	ppbv	ND		25	U
1,1-Dichloroethane	ND	ppbv	ND		25	U
Methyl tert-Butyl Ether	ND	ppbv	ND		25	U
Chloroprene	ND	ppbv	ND		25	U
cis-1,2-Dichloroethylene	ND	ppbv	ND		25	U
Bromochloromethane	0.077	ppbv	0.08	1.29	25	
Chloroform	0.040	ppbv	0.04	5.62	25	
Ethyl tert-Butyl Ether	ND	ppbv	ND		25	U
1,2-Dichloroethane	0.022	ppbv	0.02	0.456	25	
1,1,1-Trichloroethane	ND	ppbv	ND		25	U
Benzene	0.313	ppbv	0.34	6.69	25	
Carbon Tetrachloride	0.108	ppbv	0.12	8.38	25	
tert-Amyl Methyl Ether	ND	ppbv	ND		25	U
1,2-Dichloropropane	ND	ppbv	ND		25	U
Ethyl Acrylate	ND	ppbv	ND		25	U
Bromodichloromethane	ND	ppbv	ND		25	U
Trichloroethylene	ND	ppbv	ND		25	U
Methyl Methacrylate	ND	ppbv	ND		25	U
cis-1,3-Dichloropropene	ND	ppbv	ND		25	U
Methyl Isobutyl Ketone	0.061	ppbv	0.07	9.55	25	
trans-1,3-Dichloropropene	ND	ppbv	ND		25	U
1,1,2-Trichloroethane	ND	ppbv	ND		25	U
Toluene	1.45	ppbv	1.46	0.806	25	
Dibromochloromethane	ND	ppbv	ND		25	U
1,2-Dibromoethane	ND	ppbv	ND		25	U
n-Octane	0.079	ppbv	0.08	3.48	25	
Tetrachloroethylene	ND	ppbv	ND		25	U

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Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0308 - Summa Canister Prep						
Duplicate (B6K0308-DUP4) Continued	**Source: 6102801-02**	Prepared: 10/27/16	Analyzed: 11/03/16			
Chlorobenzene	ND	ppbv	ND		25	U
Ethylbenzene	0.188	ppbv	0.19	0.479	25	
m,p-Xylene	0.635	ppbv	0.63	0.379	25	
Bromoform	ND	ppbv	ND		25	U
Styrene	0.039	ppbv	0.04	2.30	25	
1,1,2,2-Tetrachloroethane	ND	ppbv	ND		25	U
o-Xylene	0.236	ppbv	0.24	2.14	25	
1,3,5-Trimethylbenzene	0.127	ppbv	0.13	1.25	25	
1,2,4-Trimethylbenzene	0.305	ppbv	0.31	1.14	25	
m-Dichlorobenzene	ND	ppbv	ND		25	U
p-Dichlorobenzene	ND	ppbv	ND		25	U
o-Dichlorobenzene	ND	ppbv	ND		25	U
1,2,4-Trichlorobenzene	ND	ppbv	ND		25	U
Hexachloro-1,3-butadiene	ND	ppbv	ND		25	U
Batch B6K0906 - Summa Canister Prep						
Blank (B6K0906-BLK1)		Prepared: 11/04/16	Analyzed: 11/09/16			
Acetylene	ND	ppbv				U
Propylene	ND	ppbv				U
Dichlorodifluoromethane	ND	ppbv				U
Chloromethane	ND	ppbv				U
Dichlorotetrafluoroethane	ND	ppbv				U
Vinyl chloride	ND	ppbv				U
1,3-Butadiene	ND	ppbv				U
Bromomethane	ND	ppbv				U
Chloroethane	ND	ppbv				U
Acetonitrile	ND	ppbv				U
Acrolein	ND	ppbv				U
Trichlorofluoromethane	0.046	ppbv				
Acrylonitrile	ND	ppbv				U
1,1-Dichloroethene	ND	ppbv				U
Dichloromethane	ND	ppbv				U
Carbon Disulfide	ND	ppbv				U
Trichlorotrifluoroethane	ND	ppbv				U
trans-1,2-Dichloroethylene	ND	ppbv				U
1,1-Dichloroethane	ND	ppbv				U
Methyl tert-Butyl Ether	ND	ppbv				U
Chloroprene	ND	ppbv				U

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AQS SITE CODE:
SITE CODE: CCPG-MS

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0906 - Summa Canister Prep						
Blank (B6K0906-BLK1) Continued		Prepared: 11/04/16 Analyzed: 11/09/16				
cis-1,2-Dichloroethylene	ND	ppbv				U
Bromochloromethane	0.034	ppbv				
Chloroform	ND	ppbv				U
Ethyl tert-Butyl Ether	ND	ppbv				U
1,2-Dichloroethane	ND	ppbv				U
1,1,1-Trichloroethane	ND	ppbv				U
Benzene	ND	ppbv				U
Carbon Tetrachloride	ND	ppbv				U
tert-Amyl Methyl Ether	ND	ppbv				U
1,2-Dichloropropane	ND	ppbv				U
Ethyl Acrylate	ND	ppbv				U
Bromodichloromethane	ND	ppbv				U
Trichloroethylene	ND	ppbv				U
Methyl Methacrylate	ND	ppbv				U
cis-1,3-Dichloropropene	ND	ppbv				U
Methyl Isobutyl Ketone	ND	ppbv				U
trans-1,3-Dichloropropene	ND	ppbv				U
1,1,2-Trichloroethane	ND	ppbv				U
Toluene	ND	ppbv				U
Dibromochloromethane	ND	ppbv				U
1,2-Dibromoethane	ND	ppbv				U
n-Octane	ND	ppbv				U
Tetrachloroethylene	ND	ppbv				U
Chlorobenzene	ND	ppbv				U
Ethylbenzene	ND	ppbv				U
m,p-Xylene	ND	ppbv				U
Bromoform	ND	ppbv				U
Styrene	ND	ppbv				U
1,1,2,2-Tetrachloroethane	ND	ppbv				U
o-Xylene	ND	ppbv				U
1,3,5-Trimethylbenzene	ND	ppbv				U
1,2,4-Trimethylbenzene	ND	ppbv				U
m-Dichlorobenzene	ND	ppbv				U
p-Dichlorobenzene	ND	ppbv				U
o-Dichlorobenzene	ND	ppbv				U
1,2,4-Trichlorobenzene	ND	ppbv				U
Hexachloro-1,3-butadiene	ND	ppbv				U

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Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B6K0906 - Summa Canister Prep						
Duplicate (B6K0906-DUP1)	**Source: 6110404-01** Prepared: 11/02/16 Analyzed: 11/09/16					
Acetylene	0.159	ppbv	0.17	5.15	25	
Propylene	2.37	ppbv	2.42	1.97	25	
Dichlorodifluoromethane	0.413	ppbv	0.43	3.40	25	
Chloromethane	0.443	ppbv	0.46	2.76	25	
Dichlorotetrafluoroethane	0.031	ppbv	0.04	19.4	25	
Vinyl chloride	ND	ppbv	ND		25	U
1,3-Butadiene	ND	ppbv	ND		25	U
Bromomethane	ND	ppbv	ND		25	U
Chloroethane	0.030	ppbv	0.04	23.4	25	
Acetonitrile	0.087	ppbv	0.10	14.2	25	
Acrolein	0.270	ppbv	0.28	4.46	25	
Trichlorofluoromethane	0.228	ppbv	0.24	5.59	25	
Acrylonitrile	ND	ppbv	ND		25	U
1,1-Dichloroethene	ND	ppbv	ND		25	U
Dichloromethane	0.063	ppbv	0.08	20.6	25	
Carbon Disulfide	0.028	ppbv	0.03	21.7	25	
Trichlorotrifluoroethane	0.066	ppbv	0.08	13.0	25	
trans-1,2-Dichloroethylene	ND	ppbv	ND		25	U
1,1-Dichloroethane	ND	ppbv	ND		25	U
Methyl tert-Butyl Ether	ND	ppbv	0.01		25	U
Chloroprene	ND	ppbv	ND		25	U
cis-1,2-Dichloroethylene	ND	ppbv	ND		25	U
Bromochloromethane	0.040	ppbv	0.04	5.88	25	
Chloroform	0.021	ppbv	0.03	31.5	25	
Ethyl tert-Butyl Ether	ND	ppbv	ND		25	U
1,2-Dichloroethane	0.016	ppbv	0.03	46.7	25	
1,1,1-Trichloroethane	ND	ppbv	ND		25	U
Benzene	0.537	ppbv	0.63	15.8	25	
Carbon Tetrachloride	0.085	ppbv	0.11	21.8	25	
tert-Amyl Methyl Ether	ND	ppbv	ND		25	U
1,2-Dichloropropane	ND	ppbv	ND		25	U
Ethyl Acrylate	ND	ppbv	ND		25	U
Bromodichloromethane	ND	ppbv	ND		25	U
Trichloroethylene	ND	ppbv	ND		25	U
Methyl Methacrylate	ND	ppbv	ND		25	U
cis-1,3-Dichloropropene	ND	ppbv	ND		25	U
Methyl Isobutyl Ketone	0.040	ppbv	0.05	26.5	25	
trans-1,3-Dichloropropene	ND	ppbv	ND		25	U

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