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Interim Report, Missile Community Cancer Study, Malmstrom Air Force Base, Round 1 Results

Col Joanna L. Rentes
Occupational & Environmental Health Department

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23 October 2023

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14. ABSTRACT
At the request of the Air Force Global Strike Command Surgeon General (AFGSC/SG), the Defense Center for Public Health-Dayton DCPH-D) Occupational and Environmental Health Department Consultative Services Division (OEC) performed an environmental health survey for all fifteen Missile Alert Facilities (MAFs) at Malmstrom AFB, MT. The assessment was completed from 20 to 30 June 2023 and included area air sampling, direct reading instrument (DRI) air monitoring, swipe sampling, drinking water sampling, and soil sampling. This survey was performed to characterize and document potential personnel exposures to environmental hazards in the MAFs. The purpose of this memo is to convey survey results received from four civilian and military laboratories.

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711TH HUMAN PERFORMANCE WING (AFRL)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

23 October 2023

MEMORANDUM FOR: AFGSC/SGPB
ATTN: Lt Col Raymond Mak

FROM: DCPH-D/OE
2510 Fifth Street, Building 840
WPAFB OH 45433-7913

SUBJECT: Consultative Letter, AFRL- 2023-5416, Missileer Cancer Study, Malmstrom Air Force Base (AFB) Round I Results

References: (a) Emily C. Arceo, *Technical Guide for Indoor Air Quality Surveys* (OH: Air Force Research Laboratory, 2014), pp 4, 6 & 9.

(b) American Conference of Governmental Industrial Hygienists, *2023 Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices* (OH: ACGIH, 2023), 19.

(c) American Conference of Governmental Industrial Hygienists, *2001 Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices* (OH: ACGIH, 2001).

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(f) Environmental Protection Agency, *Volatile Organic Compounds' Impact on Indoor Air Quality*. (Washington, D.C.: EPA, 2023).

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(i) Agency for Toxic Substances and Disease Registry, *Polychlorinated Biphenyls ToxFAQs* (GA: ATSDR, 2014).

(j) National Archives, *40 CFR 761.61* (Washington, D.C.: CFR, 2023).

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(r) International Agency for Research on Cancer, Dioxin Revisited: Developments Since the 1997 IARC Classification of Dioxin as a Human Carcinogen (FR: IARC, 2004).

(s) Agency for Toxic Substances and Disease Registry, *ToxFAQs for Nitrate and Nitrite* (GA: ATSDR, 2017).

(t) Agency for Toxic Substances and Disease Registry, *What are the Health Effects from Exposure to Nitrates and Nitrites* (GA: ATSDR, 2023).

1. INTRODUCTION

At the request of the Air Force Global Strike Commander (AFGSC/CC), the Defense Center for Public Health-Dayton (DCPH-D) Occupational and Environmental Health Department Consultative Services Division (OEC) performed an environmental health survey for all fifteen Missile Alert Facilities (MAFs) at Malmstrom AFB, MT. The assessment was completed from 20 to 30 June 2023 and included area air sampling, direct reading instrument (DRI) air monitoring, swipe sampling, drinking water sampling, and soil sampling. This survey was performed to characterize and document potential personnel exposures to environmental hazards in the MAFs. The purpose of this memo is to convey survey results received from four civilian and military laboratories.

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(4) TSgt Willie McElroy, OEH Technician, DCPH-D/OEC

(5) SSgt Jesse Reed, OEH Technician, DCPH-D/OEC

B. Personnel Contacted:

(1) Lt Col Jennifer Harward, Operational Medical Readiness Squadron Commander

(2) Maj Brian Shuler, Bioenvironmental Engineering Flight Commander

(3) TSgt Darryl Adams, Bioenvironmental Engineering Flight Chief

(4) TSgt Carla Lang, Facility Manager Superintendent

(5) SSgt Tyler Johnson, Medical Logistics Technician

C. Equipment Used:

(1) Thermo-System Engineering Incorporated (TSI) VelociCalc Meter: Ventilation air velocity and pressure differential

(2) TSI Indoor Air Quality (IAQ) Meter: Temperature, humidity, carbon monoxide, carbon dioxide

(3) Forensics Detectors Ozone Meter

(4) HACH DR900 Colorimeter: pH, Total Chlorine, Free Available Chlorine in water

(5) Scientific Kit Corporation (SKC) Air Sampling Pumps

(6) MESA LABS Air Sampling Pump Calibrator

(7) Ancillary equipment including sterile containers and other items to facilitate sample collection and analysis

2. BACKGROUND

Following a March 2023 site visit to address cancer concerns in the missileer community, DCPH-D/OE performed the first round of environmental sampling at all MAFs at Malmstrom AFB, MT. The sampling plan targeted potential carcinogens identified during the initial visit which potentially affect MAF personnel through dermal, ingestion, and inhalation pathways. The potential health hazards sampled for will be discussed in the health hazard summary in the following section.

The missile squadrons included in this survey are the 10th, 12th, and 490th each comprised of five MAFs at Malmstrom AFB. The 10th Missile Squadron is responsible for MAFs Alpha through Echo, the 12th Missile Squadron is responsible for Foxtrot through Juliet and the 490th Missile Squadron is responsible for Kilo through Oscar. MAFs are of similar construction where the Topside Support Building consists of bedrooms, common areas, offices and a kitchen and the Launch Control Center (LCC) is completely underground with access by an elevator. When activated, the LCCs are manned twenty-four hours per day, seven days per week, three hundred sixty-five days a year with two-person crews that operate the LCC for twenty-four hours at a time, seven straight days followed by two weeks where that two-man crew is not at the MAF. The LCCs are periodically deactivated for maintenance.

3. HEALTH HAZARD SUMMARY

This section details the potential health hazards in the MAFs and LCCs. The survey includes IAQ parameters like temperature, relative humidity and carbon dioxide that can indicate comfort levels in a workplace, as well as suspected carcinogens that could be found in the air, soil, and water. All samples were used to characterize and identify potential hazards in the work centers. Some of the chemicals (organophosphates and diquat/paraquat, for example) sampled for were selected due to the geographic location of the MAFs on or near agricultural land and the historical presence of these chemicals used near these facilities.

3.1 INDOOR AIR QUALITY

3.1.1 CARBON MONOXIDE

Carbon monoxide is an odorless gas and can cause fatigue, drowsiness, nausea, headache, and difficulty breathing. It is formed from incomplete combustion from equipment inside a building or vehicles running outside the air intake vent of the building (Arceo, 2014). Carbon monoxide is also naturally produced in the human body and can increase in individuals who smoke. The American Conference of Governmental Industrial Hygienists (ACGIH) established a Threshold Limit Value (TLV) as an 8-hour time-weighted average (TWA) of twenty-five parts-per-million for carbon monoxide (ACGIH, 2023). TLVs are ACGIH health-based standards which establish levels of exposures that workers can be exposed to without adverse health effects while TWAs are airborne chemical concentrations for a conventional eight-hour workday and forty-hour workweek (Ibid, 2023). The TLV for carbon monoxide is intended to maintain blood carboxyhemoglobin (COHb) levels below 3.5%, to minimize the potential for adverse neurobehavioral changes, and to maintain cardiovascular work and exercise capacities (ACGIH, 2001). Furthermore, this TLV provides a margin of safety for workers particularly susceptible to

the adverse effects of carbon monoxide exposure, including pregnant workers (i.e., the fetus) and those with chronic heart and respiratory diseases (Ibid, 2001).

Carbon monoxide poisoning prevents the body from absorbing enough oxygen that has the potential to lead to unconsciousness, coma, and death. Although not linked to cancer, sampling for carbon monoxide serves two purposes: (1) assesses direct exposure to MAF occupants; and (2) assesses the effectiveness of MAF ventilation systems.

3.1.2 CARBON DIOXIDE

Carbon dioxide is a gas produced by human exhalation. If inadequate fresh air or "make-up" air is available within a building, carbon dioxide can accumulate indoors. Carbon dioxide is not considered a health risk at high levels, but symptoms of concentrations exceeding 600 parts-per-million can include headache, drowsiness, difficulty concentrating, and dizziness (Arceo, 2014). The Bioenvironmental Engineering Technical Guide for Indoor Air Quality Surveys further reflects maximum levels to carbon dioxide should not exceed one-thousand parts-per-million (Ibid, 2014). Although not linked to cancer, sampling for carbon dioxide serves three purposes: (1) assesses direct exposure to MAF occupants; (2) assesses the effectiveness of MAF ventilation systems; and (3) assesses MAF structural integrity which potentially indicates a need for DCPH-D/OE to expand the current environmental sampling strategy.

3.1.3 OZONE

Ozone is a colorless gas that can be emitted directly by urban and industrial processes, but also forms in the atmosphere by chemical reactions between nitrogen oxides and volatile organic compounds (VOCs). Ozone is used as a bleaching agent for pulp and paper. The ACGIH established a TLV for light work recommending airborne ozone exposures are limited to 0.1 parts-per-million. Ozone affects the lower respiratory system and exposure limits are based on work activity levels (light, moderate, and heavy work activity) as respiratory rates increase, the potential for ozone reaching the deep lung also increases (Luttrell et al., 2019). Symptoms of excessive exposure to ozone include fatigue, dizziness, headache, and decreased concentration, motor activity, and cognitive response (Ibid, 2019). Although inconclusive, increased ozone levels have been linked to an increase in cancer risk (Kim, et al, 2019).

3.1.4 TEMPERATURE AND RELATIVE HUMIDITY

Temperature and humidity recommendations are set by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and are based on comfort of the occupants as opposed to health risk. ASHRAE recommends temperatures of 68°F – 74°F in cold seasons and 72°F – 80°F during warm seasons. Relative humidity below 40% is commonly associated with building occupant discomfort and dissatisfaction. Symptoms due to abnormal relative humidity can include dry nose and throat, nose bleeds, sinus and throat irritation, and dry eyes. Long term exposure to low relative humidity can also contribute to respiratory illness via weakening pulmonary mucous membrane defense (Arceo, 2014). Although not linked to cancer, analyzing temperature and relative humidity assesses MAF structural integrity which can be used to facilitate changes to DCPH-D/OE's current environmental sampling strategy.

3.2 VOLATILE ORGANIC COMPOUNDS

VOCs are a group of substances that have a high vapor pressure and low water solubility. This makes them able to easily change from a liquid or solid to a gaseous state which increases the potential for human exposure via inhalation. Exposure limits for VOCs are unique to each chemical. They are commonly found in both industrial environments and household products such as cleaning supplies, varnishes, and pesticides (Environmental Protection Agency, 2023). Over fifty VOCs were sampled for at each MAF. Health effects from VOC exposure vary from eye, nose and throat irritation, headaches to damage to the liver kidney and central nervous system (Ibid, 2023). VOCs can accumulate in an indoor setting and affect the quality of indoor air. Considering some VOCs have been confirmed or suspected to cause cancer in humans (Ibid, 2023), air samples were collected to test for VOCs within the MAFs.

3.3 ORGANOPHOSPHATES

Organophosphates are a type of insecticide or pesticide commonly used in agriculture, homes, and gardens. Several organophosphates are highly toxic and can potentially cause acute (sudden) or subacute (rapid) toxicity (Environmental Protection Agency, 2013). Various organophosphates were sampled for in the air, soil, and water. These compounds have varying exposure limits or maximum contaminant levels (MCLs) although their human health effects are similar. Acute symptoms from pesticide exposure includes diarrhea, excessive salivation, and constriction of pupils. Acute and subacute symptoms include fluid accumulation in the respiratory tract as well as central nervous system effects such as tremors, delirium, loss of coordination, and convulsions (Luttrell et al., 2019). Organophosphates (specifically malathion, diazinon, dichlorvos, parathion, and tetrachlorvinphos) have been deemed possible carcinogens or probable carcinogens by The International Agency for Research on Cancer (IARC) and/or the United States Environmental Protection Agency (EPA) (National Institute of Health, 2015). Air, water, and soil samples were collected to test for organophosphate compounds due to MAF locations adjacent to agricultural land.

3.4 POLY CHLORINATED BIPHENYLS (PCBs)

PCBs are synthetic organic chemicals used for a variety of industrial and commercial purposes. They were commonly used in the fluid in electrical components, capacitors, and transformers. PCBs were developed in the 1940's and used through the late 1970's. In the late 1970's, they were banned because of evidence that determined PCBs accumulate in the environment and may be toxic to humans and wildlife. PCBs remain present in electrical components of equipment in the LCCs because of their capability to insulate and regulate equipment temperatures (Agency for Toxic Substances and Disease Registry, 2014). 40 Code of Federal Regulations (CFR) 761.61 establishes a standard for PCB spills to be cleaned to ten micrograms per one hundred square centimeters (10 $\mu g/100\ cm^2$) (National Archives, 2023). The EPA has classified PCBs as a probable human carcinogen. Many of the cancer concerns from LCC occupants originated with concerns from PCB exposures. Furthermore, PCB stickers across all LCCs were found to be unstandardized and MAF occupants reported incidences of PCB leaks. Due to LCC equipment containing PCBs, swipe, air, and water samples were collected to test for PCBs.

3.5 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)

SVOCs are persistent pollutants in soils and aquatic environments which can be transported over long distances and accumulate in organisms (Liu et al., 2019). SVOCs can be found in many pesticides, oil-based products, and flame retardants. Exposure limits for SVOCs are unique to each chemical yet have similar adverse health effects on the human body. Over sixty SVOCs were analyzed for in the water and their respective MCLs can be found in the results tables in the Appendices. Some SVOCs could cause cancer, reproductive disorders, nervous system damage, and immune system disruption (Ibid, 2019). Considering concerns with carcinogenic effects, SVOC water samples were collected within the MAFs.

3.6 DIQUAT/PARAQUAT

Diquat and paraquat compounds are herbicides used in agriculture and homes, although diquat is utilized less in agriculture than paraquat (Jones and Vale, 2000). Paraquat was first produced for commercial purposes in 1961 and is one of the most used herbicides worldwide (Center for Disease Control and Prevention, 2018). The EPA has set a MCL for diquat at 0.02 milligrams per liter. While no paraquat MCL exists, the EPA requires mitigation measures with paraquat to reduce risks to human health and the environment (EPA, 2023). Health effects from diquat and paraquat exposure include gastrointestinal symptoms and heart, liver, and kidney failure (Center for Disease Control and Prevention, 2018). Herbicides have the potential to remain present in environments surrounding MAFs due to MAF proximity to agricultural land which use herbicides. Consider links to elevated rates of non-Hodgkin's lymphoma (NIH, 2016), water samples were collected to test for diquat/paraquat.

3.7 DIOXINS

Dioxins are persistent organic pollutants found throughout the world that can take a long time to break down once in the environment. They can bioaccumulate resulting in greater than ninety percent of typical human exposure to be via dietary intake of animal, dairy and fish products (EPA, 2023). Dioxins can be found in the water from air emissions due to burning of waste or other combustion sources (Ibid, 2023). The EPA has established a MCL of thirty picograms per liter for 2,3,7,8-Tetrachlorodibenzodioxin. Exposure to 2,3,7,8-Tetrachlorodibenzodioxin results in severe skin disease and acne-like skin lesions (Agency for Toxic Substances and Disease Registry, 1999). Variations of dioxins have been banned for use inside the United States. The dioxin 2,3,7,8-Tetrachlorodibenzodioxin is deemed a human carcinogen by the World Health Organization (IARC, 2004). In the 1980s, 2,3,7,8-Tetrachlorodibenzodioxin was banned from use within the United States. Due to dioxins ability to attach to soil and settle in sediment water, dioxins have the potential to remain present in environments surrounding MAFs. Therefore, samples were collected to test for dioxins in drinking water.

3.8 NITRATE/NITRITE

Fertilizers and animal waste can contain nitrogen increasing the concentration of nitrate in water sources. Per the Agency for Toxic Substances and Disease Registry (ATSDR), nitrate

containing compounds in the soil can easily dissolve in water making them easy to migrate into groundwater (ATSDR, 2017). Nitrite is more easily oxidized than nitrate, therefore nitrate is more commonly found in groundwater and surface waters. The EPA has established a MCL of ten milligrams per liter for total nitrates and nitrites as nitrogen. Excessive nitrate or nitrite exposure can cause blood disorders and are classified by IARC as "probably carcinogenic to humans" (ATSDR, 2023). Due to the location of most MAFs near agricultural land, water samples were collected to test for nitrite and nitrate.

4. METHODOLOGY & ANALYSIS

This section summarizes sampling plans utilized to ensure proper collection, analysis, and validity of results. Detailed sampling plans for each potential health hazard sampled will be included in the final report. National Institute for Occupational Safety and Health (NIOSH) and EPA approved methods were used to develop sampling plans and execute sample analysis. Laboratory analysis was used to run five methods for water sampling, three methods for air sampling, one method for PCB swipe sampling, and one method for soil sampling. The individual methods for sampling can test for multiple analytes or chemical compounds. The tables in the Appendices of this report contain sample type, location, analyte, result, and applicable detection limit. Except for soil, which was collected outside of the MAFs, all samples were collected in both the LCC and in the Topside Support Building. A summary of analytical methods and number of samples taken for each method can be found in Table 1. Samples were shipped from Malmstrom AFB to four civilian and military analytical laboratories to conduct the analysis. DCPH-D/OE validated results as they were received from the laboratories.

4.1 WATER

Sample locations at each MAF were the kitchen sink in the Topside Support Building and the bathroom sink in the LCC. In accordance with EPA sampling methods, screen aerators were removed, and the water was flushed for five minutes prior to sample collection. After sample collection, samples were immediately stored to meet required temperature parameters defined in the analytical method. Three samples for each method were taken at the two specified locations: (1) the sample, (2) matrix spike, and (3) matrix spike duplicate. Matrix spike and matrix spike duplicates are quality-control samples used to evaluate the performance of the analytical method by measuring the effect on interferences caused by the sample matrix – water in this case. Matrix spike and matrix spike duplicates were spiked with a required, known amount of the analyte and run through the analytical method by the labs. The lab calculates the percent recovery of the spike and must fall within parameters to ensure sample results are not affected by interferents.

4.2 AIR

Air sampling quantifies the concentration of analytes within the volume sampled. Area air samples were collected to characterize the background indoor air environment in the MAFs. DCPH-D/OE used three different methods to analyze for sixty-eight analytes consisting of organophosphates, PCBs, and VOCs in each of the fifteen MAFs. The following area air samples were collected for each method:

- Organophosphate: eight- and two-hour samples in the LCC and eight- and two-hour samples in the Topside Support Building. Two-hour sampling was conducted because

one of the chemicals analyzed in the method had a lower maximum collection volume that would be exceeded if sampled for eight hours.

- PCB: eight-hour sample in the LCC and eight-hour sample in the Topside Support Building.
- VOCs: eight-hour sample in the LCC and eight-hour sample in the Topside Support Building.

In addition to the area air samples collected at each MAF, field and media blanks were also analyzed. Media blanks are never exposed to the environment and are used to ensure there is no contamination of media during the equipment/media manufacturing and handling processes. Field blanks are opened to the environment to assess any initial contamination that may have occurred prior to any tested air that would have flowed through the sample media.

Eight-hour area air samples were collected to minimize missile crew rest interruption. The two-man crew is in the LCC for twenty-four hours where each crew member will have crew rest for about eight hours. The remaining time is spent in the crew members' seat in front of their visual display console. Considering missileers are not performing any processes that would change LCC conditions, an eight-hour area sample can appropriately characterize a twenty-four-hour alert shift.

4.3 SOIL

To determine the presence of organophosphates, six grab samples were collected eight to twelve inches below the soil surface at each MAF. Samples were collected at each corner, outside of the MAF restricted area fence line to establish background concentrations. Additionally, a sample was collected near the air intake vent where dirt can potentially enter the MAF ventilation system. The sixth soil sample location was selected at random within the MAF fence line.

4.4 PCB SWIPES

Swipe sampling was conducted to determine the presence/absence of PCBs. A total of twenty swipes were collected in each MAF at locations historically known to contain PCBs (e.g., panels, transformers, & batteries) as well as commonly touched areas and equipment (e.g., display screens, keyboards, doorknobs/levers & elevator buttons). Surfaces of a ten centimeter by ten-centimeter (100 cm^2) area were swiped horizontally and vertically within the same location, side to side, up and down. When possible, for equipment being swiped, both a surface swipe and ground level or underside of the piece of equipment was swiped to capture any potential PCB equipment leaks.

Table 1: Summary of Analytical Methods and Sample Quantity for each Potential Health Hazard

Potential Health Hazard	Lab (Location)	Analytical Method	Matrix	No. of Samples (per MAF)	No. of Samples (per base)
PCBs	Eurofins (South Bend, IN)	EPA 505	Water	6	90
Total Nitrate/Nitrite as N	Aberdeen (Aberdeen Proving Ground, MD)	NECi N07-0003	Water	6	90
Pesticides/SVOCs	Eurofins	EPA 525.2	Water	6	90
Diquat/Paraquat	Eurofins	EPA 549.2	Water	6	90
Dioxin	Aberdeen	EPA 1613B	Water	6	90
VOCs	Bureau Veritas North America (Fort Lauderdale, FL)	EPA TO 17	Air	4	60
Organophosphates	Bureau Veritas North America	NIOSH 5600	Air	6	90
PCBs	Bureau Veritas North America	NIOSH 5503	Air	4	60
PCB Swipe Sampling	Summit (Cuyahoga Falls, OH)	EPA 8082A	Surface	20	300
Organophosphates	Summit	EPA 1699	Soil	6	90

5. RESULTS & DISCUSSION

This section summarizes the findings of all samples collected at Malmstrom AFB. Sample results were received from the laboratories and checked for quality assurance and control. Any results that came back above a standard were immediately communicated and released to AFGSC/SG. All results for each MAF received from the laboratories are documented in the Appendices of this report. Each MAF's results can be found as its own Appendix, Appendix Alpha through Appendix Oscar. Non-Detects (ND) mean the result was below the laboratory's limit of detection for that specific method. Any samples that broke during shipment or processing at the laboratory will be resampled during Round 2 of this project.

5.1 PCB SWIPE SAMPLING

Swipe sampling for PCBs were compared to the 40 CFR 761 standard of ten micrograms per one hundred square centimeters (10 µg/100 cm^2). Seven of the fifteen MAFs surveyed had detectable levels of PCBs. Only two MAFs revealed locations which exceeded 10 µg/100 cm^2 (Wing 1 LCDB Panel at Hotel-H01; LCC: Wing 1 LCDB Panel at India I-01). These results were expediated to AFGSC/SG via the Malmstrom PCB memorandum dated on 4 August 2023. A full list of all swipe locations at each MAF and results can be found as Tables 1A – 1O in the Appendices.

5.2 AIR SAMPLING

All PCB and organophosphate area air sampling in the LCC and Topside Support Building were below laboratory limits of detection. The two-hour area air sampling using method NIOSH 5600 for organophosphates only analyzed for malathion as seen in Table 3 of the Appendices.

VOC air sampling results detected trace amounts of:

- Benzene in MAFs Delta, Echo, India, Kilo, Lima and November,
- Styrene in Kilo,
- Toluene in Lima and
- 1,2-dichloroethane in Lima and November

However, VOC media blank samples at MAFs Delta, Hotel, and Juliet showed trace amounts of benzene above the reporting limit. Additionally, the Hotel field blank detected small amounts of benzene. The trace amounts of chemicals found on media and field blanks can be indicators for false positive results. Therefore, DCPH-D/OE will resample for these constituents in Round 2. A full list of results can be found in Tables 2-4 in the Appendices.

5.3 WATER SAMPLING

All analytes with an EPA-established MCL had results less than the MCL indicating there are no identified analytes within the drinking water presenting a current risk to human health. Some analytes evaluated do not have an MCL, noted not applicable (N/A) in the tables located in the Appendix. The EPA has not determined these analytes a risk considering public health protection, technical and financial barriers. The water results for each method can be found in Tables 5-9 of the Appendices.

5.4 SOIL SAMPLING

Soil sampling was performed to determine presence or absence of organophosphate compounds on and around MAF property. The results were non-detect for all ten analytes screened at all fifteen MAFs. The full list of results can be found as Tables 10 in the Appendices.

5.5 IAQ

Direct reading measurements for carbon monoxide, carbon dioxide, ozone, relative humidity, and temperature were taken in each MAF. Readings were compared to comfort levels provided

by the ASHRAE Standard 62.1-2010 and exposure limits dictated by ACGIH. A full list of IAQ results can be found in Tables 11 in the Appendices.

- Carbon monoxide: All carbon monoxide levels were well below the ACGIH TLV of twenty-five parts-per-million.
- Carbon dioxide: All carbon dioxide levels were below the recommended worker comfort maximum exposure limit of one-thousand parts-per-million per ASHRAE criteria. All fifteen MAFs revealed carbon dioxide levels above six-hundred parts-per-million which has shown to illicit mild symptoms in some occupants.
- Ozone: All levels were at zero, below the ACGIH TLV of 0.1 parts-per-million for light work.
- Relative humidity: Average relative humidity levels ranged from 31.4% to 62.4%, which is within ASHRAE's comfort criteria for relative humidity of 30% to 60%.
- Temperature: The average temperature within all 15 LCCs tested was 70.3°F, which is just below ASHRAE temperature recommendations of 72°F to 80°F for summer. Although below ASHRAE recommendations, DCPH-D/OE does not foresee any comfort risks associated with these temperature variances.

5.6 RADON

Considering the length of time required to collect the radon samples and complete analysis, results from Round 1 radon sampling will be captured in a future report.

6. CONCLUSIONS

The results presented in this report are a part of a multi-faceted study to characterize the environment in which the missileer community works. Three sampling events will occur over a year to determine if seasonal variations in the analytes analyzed exist. Round 2 of this assessment is occurring in Fall 2023. If you have any questions, comments, or concerns, please contact Capt Leigh Durden at 937-938-3297 or by e-mail at leigh.durden@us.af.mil.

RENTES.JOANNA.LYNNE.1012419585

Digitally signed by RENTES.JOANNA.LYNNE.1012419585
Date: 2023.10.27 12:09:28 -04'00'

JOANNA L. RENTES, Col, USAF, BSC
Chair
Occupational and Environmental Health Department

Appendix 1: MAF ALPHA (A-01) Results, Sampled on 28 June 2023

Table 1A: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power 60 Cycle - Top	Total PCBs	Not Detected	10
AC Power 60 Cycle - Bottom	Total PCBs	Not Detected	10
Power Supply Group - Top (SN: 06)	Total PCBs	Not Detected	10
Power Supply Group - Middle (SN: 06)	Total PCBs	Not Detected	10
Power Supply Group - Bottom (SN: 06)	Total PCBs	Not Detected	10
Below Transmitter Digital Data Group (SN: 0000102)	Total PCBs	Not Detected	10
Below Receiver Digital Data Group (SN: 0000102)	Total PCBs	Not Detected	10
Bottom Fridge Handle	Total PCBs	Not Detected	10
Left Console Keyboard	Total PCBs	Not Detected	10
Left Console Screen	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
Right Console Screen	Total PCBs	Not Detected	10
DRS Sustainment System - Below Red Buttons	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Under Switches	Total PCBs	Not Detected	10
Oxygen Regeneration Unit - Top	Total PCBs	Not Detected	10
Latrine Handle	Total PCBs	Not Detected	10
Electromagnetic Filter (Outside Elevator) - Bottom	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
SCC Comm Desk	Total PCBs	Not Detected	10
Common Area Phone	Total PCBs	Not Detected	10

Table 2A: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3A: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4A: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4A: Air Sampling Results – VOCs Cont.

Analyte	LCC Result ($\mu g/m^3$)	Topside Result ($\mu g/m^3$)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5A: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	0.98	1.00	10

Table 6A: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<4.2	30

Table 7A: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8A: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9A: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.00011	N/A
2-Methylnapthalene	<0.0001	<0.00011	N/A
4,4'-DDD	<0.0001	<0.00011	N/A
4,4'-DDE	<0.0001	<0.00011	N/A
4,4'-DDT	<0.0001	<0.00011	N/A
Acenaphthene	<0.0001	<0.00011	N/A
Acenaphthylene	<0.0001	<0.00011	N/A
Alachlor	<0.0001	<0.00011	0.002
Aldrin	<0.0001	<0.00011	0.00001
alpha-Chlordane	<0.0001	<0.00011	N/A

Table 9A: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.00011	N/A
Atrazine	<0.0001	<0.00011	0.003
Benzo[a]anthracene	<0.0001	<0.00011	0.0001
Benzo[a]pyrene	<0.000021	<0.000022	0.0002
Benzo[b]fluoranthene	<0.0001	<0.00011	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.00011	N/A
Benzo[k]fluoranthene	<0.0001	<0.00011	0.0002
Bromacil	<0.0001	<0.00011	N/A
Butachlor	<0.0001	<0.00011	N/A
Butylbenzylphthalate	<0.001	<0.0011	N/A
Chlorothalonil	<0.0001	<0.00011	N/A
Chrysene	<0.0001	<0.00011	0.0002
Cyanazine	<0.0001	<0.00011	N/A
Deisopropylatrazine	<0.001	<0.0011	N/A
Desethylatrazine	<0.001	<0.0011	N/A
Di(2-ethylhexyl)phthalate	<0.00063	<0.00065	0.006
Di(2-ethylhexyl)adipate	<0.00063	<0.00065	0.40
Diazinon	<0.0001	<0.00011	N/A
Dibenz[a,h]anthracene	<0.0001	<0.00011	0.0003
Dieldrin	<0.0001	<0.00011	N/A
Diethylphthalate	<0.001	<0.0011	N/A
Dimethoate	<0.00052	<0.00054	N/A
Dimethylphthalate	<0.001	<0.0011	N/A
Di-n-butylphthalate	<0.0021	<0.0022	N/A
Di-n-octylphthalate	<0.0021	<0.0022	N/A
Endrin	<0.00001	<0.000011	0.002
EPTC	<0.0001	<0.00011	N/A
Fluoranthene	<0.0001	<0.00011	N/A
Fluorene	<0.0001	<0.00011	N/A
gamma-BHC (Lindane)	<0.000021	<0.000022	0.0002
gamma-Chlordane	<0.0001	<0.00011	0.100
Heptachlor	<0.00001	<0.000011	0.0004
Heptachlor Epoxide	<0.00001	<0.000011	0.0002
Hexachlorobenzene	<0.0001	<0.00011	0.001
Hexachlorocyclopentadiene	<0.0001	<0.00011	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.00011	0.0004
Malathion	<0.0001	<0.00011	N/A

Table 9A: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.00011	0.04
Metolachlor	<0.0001	<0.00011	N/A
Metribuzin	<0.0001	<0.00011	N/A
Molinate	<0.0001	<0.00011	N/A
Naphthalene	<0.0001	<0.00011	N/A
Parathion	<0.00052	<0.00054	N/A
Phenanthrene	<0.0001	<0.00011	N/A
Prometryn	<0.0001	<0.00011	N/A
Propachlor	<0.0001	<0.00011	N/A
Pyrene	<0.0001	<0.00011	0.0002
Simazine	<0.000073	<0.000075	0.004
Terbacil	<0.0001	<0.00011	N/A
Thiobencarb	<0.0001	<0.00011	N/A
trans-Nonachlor	<0.0001	<0.00011	0.002
Trifluralin	<0.0001	<0.00011	N/A

Table 10A: Soil Sampling Results

Analyte	NW corner, 5 ft from fence (mg/kg-dry)	SW Corner, 5 ft from fence (mg/kg-dry)	SE Corner, 5 ft from fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10A: Soil Sampling Results Cont.

Analyte	NE Corner, 5 ft from fence (mg/kg-dry)	South side of MAF Outside RM103, 15 ft from bldg (mg/kg-dry)	East side near basketball court/sandpile, 10 ft from garage (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11A: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	810 ppm	640 ppm	<1000 ppm
Relative Humidity	47.5%	38%	30% - 60%
Temperature	70.8°F	69.3°F	72°F - 80°F
Carbon Monoxide	0.3 ppm	1 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12A: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8	>8.5	6.5 - 8.5
Free Available Chlorine	0.29	0.19	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.26	0.26	> 0 mg/L; < 4 mg/L

Appendix 2: MAF BRAVO (B-01) Results, Sampled on 28 June 2023

Table 1B: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power Box - Top Handle	Total PCBs	Not Detected	10
AC Power Box - Bottom Handle	Total PCBs	Not Detected	10
Digital Data Group - Top	Total PCBs	Not Detected	10
Digital Data Group - Bottom	Total PCBs	Not Detected	10
Control Power Supply - Bottom for Leaks	Total PCBs	Not Detected	10
Left Console Keyboard	Total PCBs	Not Detected	10
Left Console Right Screen	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
Right Console Right Screen	Total PCBs	Not Detected	10
Fridge Handle - Underside	Total PCBs	Not Detected	10
DRS Sustainment System Buttons	Total PCBs	Not Detected	10
PCB Box Behind SAX Switch Box	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Inside	Total PCBs	Not Detected	10
LCC Bathroom Handle	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
Door From Elevator Outside to SF Comm Room	Total PCBs	Not Detected	10
SF Comm Room Desk, Next to Desk Phone	Total PCBs	Not Detected	10
SF Comm Room Door Handle	Total PCBs	Not Detected	10
MPP Auto Switching Unit (ASU) Handle	Total PCBs	Not Detected	10
Brown Box Top Left of ASU (Seam Where Door and Unit Meet) - Bottom	Total PCBs	Not Detected	10

Table 2B: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3B: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4B: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4B: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5B: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6B: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.2	<4.3	30

Table 7B: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8B: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9B: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.00011	N/A
2-Methylnapthalene	<0.0001	<0.00011	N/A
4,4'-DDD	<0.0001	<0.00011	N/A
4,4'-DDE	<0.0001	<0.00011	N/A
4,4'-DDT	<0.0001	<0.00011	N/A
Acenaphthene	<0.0001	<0.00011	N/A
Acenaphthylene	<0.0001	<0.00011	N/A
Alachlor	<0.0001	<0.00011	0.002
Aldrin	<0.0001	<0.00011	0.00001
alpha-Chlordane	<0.0001	<0.00011	N/A

Table 9B: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.00011	N/A
Atrazine	<0.0001	<0.00011	0.003
Benzo[a]anthracene	<0.0001	<0.00011	0.0001
Benzo[a]pyrene	<0.000021	<0.000022	0.0002
Benzo[b]fluoranthene	<0.0001	<0.00011	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.00011	N/A
Benzo[k]fluoranthene	<0.0001	<0.00011	0.0002
Bromacil	<0.0001	<0.00011	N/A
Butachlor	<0.0001	<0.00011	N/A
Butylbenzylphthalate	<0.001	<0.0011	N/A
Chlorothalonil	<0.0001	<0.00011	N/A
Chrysene	<0.0001	<0.00011	0.0002
Cyanazine	<0.0001	<0.00011	N/A
Deisopropylatrazine	<0.001	<0.0011	N/A
Desethylatrazine	<0.001	<0.0011	N/A
Di(2-ethylhexyl)phthalate	<0.00062	<0.00065	0.006
Di(2-ethylhexyl)adipate	<0.00062	<0.00065	0.40
Diazinon	<0.0001	<0.00011	N/A
Dibenz[a,h]anthracene	<0.0001	<0.00011	0.0003
Dieldrin	<0.0001	<0.00011	N/A
Diethylphthalate	<0.001	<0.0011	N/A
Dimethoate	<0.00052	<0.00054	N/A
Dimethylphthalate	<0.001	<0.0011	N/A
Di-n-butylphthalate	<0.0021	<0.0022	N/A
Di-n-octylphthalate	<0.0021	<0.0022	N/A
Endrin	<0.00001	<0.000011	0.002
EPTC	<0.0001	<0.00011	N/A
Fluoranthene	<0.0001	<0.00011	N/A
Fluorene	<0.0001	<0.00011	N/A
gamma-BHC (Lindane)	<0.000021	<0.000022	0.0002
gamma-Chlordane	<0.0001	<0.00011	0.100
Heptachlor	<0.00001	<0.000011	0.0004
Heptachlor Epoxide	<0.00001	<0.000011	0.0002
Hexachlorobenzene	<0.0001	<0.00011	0.001
Hexachlorocyclopentadiene	<0.0001	<0.00011	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.00011	0.0004
Malathion	<0.0001	<0.00011	N/A

Table 9B: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.00011	0.04
Metolachlor	<0.0001	<0.00011	N/A
Metribuzin	<0.0001	<0.00011	N/A
Molinate	<0.0001	<0.00011	N/A
Naphthalene	<0.0001	<0.00011	N/A
Parathion	<0.00052	<0.00054	N/A
Phenanthrene	<0.0001	<0.00011	N/A
Prometryn	<0.0001	<0.00011	N/A
Propachlor	<0.0001	<0.00011	N/A
Pyrene	<0.0001	<0.00011	0.0002
Simazine	<0.000073	<0.000076	0.004
Terbacil	<0.0001	<0.00011	N/A
Thiobencarb	<0.0001	<0.00011	N/A
trans-Nonachlor	<0.0001	<0.00011	0.002
Trifluralin	<0.0001	<0.00011	N/A

Table 10B: Soil Sampling Results

Analyte	SW corner (mg/kg-dry)	SE corner (mg/kg-dry)	NE corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10B: Soil Sampling Results Cont.

Analyte	NW corner (mg/kg-dry)	SW inside corner, air intake vent (mg/kg-dry)	SW inside corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11B: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	801 ppm	636 ppm	<1000 ppm
Relative Humidity	50.5%	42.8%	30% - 60%
Temperature	73.4°F	69.5°F	72°F - 80°F
Carbon Monoxide	0.1 ppm	2.6 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12B: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	7.6	7.5	6.5 - 8.5
Free Available Chlorine	0.41	0.65	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.34	0.67	> 0 mg/L; < 4 mg/L

Appendix 3: MAF CHARLIE (C-01) Results, Sampled on 22 June 2023

Table 1C: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
DC Power Supply Unit (By Bed)	Total PCBs	Not Detected	10
DC Power Supply Unit - Duplicate	Total PCBs	Not Detected	10
Distribution Box (Near Bed)	Total PCBs	Not Detected	10
Distribution Box (Near Bed) - Duplicate	Total PCBs	Not Detected	10
Digital Data Group Left of Console - Top	Total PCBs	Not Detected	10
Digital Data Group Left of Console - Bottom	Total PCBs	Not Detected	10
Left Console Keyboard (SN: C109587)	Total PCBs	Not Detected	10
Left Console Screen	Total PCBs	Not Detected	10
Right Console Keyboard (SN:C109630)	Total PCBs	Not Detected	10
Right Console Screen	Total PCBs	Not Detected	10
EACU Under Buttons	Total PCBs	Not Detected	10
LCDB Under Buttons	Total PCBs	Not Detected	10
Box Outside Elevator	Total PCBs	Not Detected	10
SCC Desk	Total PCBs	Not Detected	10
SCC Door Handle to Capsule	Total PCBs	Not Detected	10
Elevator to Capsule Button panel	Total PCBs	Not Detected	10
Common Area Dinning Table	Total PCBs	Not Detected	10
Common Area Phone	Total PCBs	Not Detected	10
Lactation Room Table	Total PCBs	Not Detected	10
DEU Room/Power Transfer Switch Panel	Total PCBs	Not Detected	10

Table 2C: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3C: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4C: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4C: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5C: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6C: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.0	<4.4	30

Table 7C: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8C: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9C: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	< 0.000097	<0.00011	N/A
2-Methylnapthalene	< 0.000097	<0.00011	N/A
4,4'-DDD	< 0.000097	<0.00011	N/A
4,4'-DDE	< 0.000097	<0.00011	N/A
4,4'-DDT	< 0.000097	<0.00011	N/A
Acenaphthene	< 0.000097	<0.00011	N/A
Acenaphthylene	< 0.000097	<0.00011	N/A
Alachlor	< 0.000097	<0.00011	0.002
Aldrin	< 0.000097	<0.00011	0.00001
alpha-Chlordane	< 0.000097	<0.00011	N/A

Table 9C: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	< 0.000097	<0.00011	N/A
Atrazine	< 0.000097	<0.00011	0.003
Benzo[a]anthracene	< 0.000097	<0.00011	0.0001
Benzo[a]pyrene	< 0.000019	<0.000022	0.0002
Benzo[b]fluoranthene	< 0.000097	<0.00011	0.0002
Benzo[g,h,i]perylene	< 0.000097	<0.00011	N/A
Benzo[k]fluoranthene	< 0.000097	<0.00011	0.0002
Bromacil	< 0.000097	<0.00011	N/A
Butachlor	< 0.000097	<0.00011	N/A
Butylbenzylphthalate	< 0.00097	<0.0011	N/A
Chlorothalonil	< 0.000097	<0.00011	N/A
Chrysene	< 0.000097	<0.00011	0.0002
Cyanazine	< 0.000097	<0.00011	N/A
Deisopropylatrazine	< 0.00097	<0.0011	N/A
Desethylatrazine	< 0.00097	<0.0011	N/A
Di(2-ethylhexyl)phthalate	< 0.00058	<0.00065	0.006
Di(2-ethylhexyl)adipate	< 0.00058	<0.00065	0.40
Diazinon	< 0.000097	<0.00011	N/A
Dibenz[a,h]anthracene	< 0.000097	<0.00011	0.0003
Dieldrin	< 0.000097	<0.00011	N/A
Diethylphthalate	<0.00097	<0.0011	N/A
Dimethoate	< 0.00048	<0.00054	N/A
Dimethylphthalate	< 0.00097	<0.0011	N/A
Di-n-butylphthalate	< 0.0019	<0.0022	N/A
Di-n-octylphthalate	< 0.0019	<0.0022	N/A
Endrin	< 0.0000097	<0.000011	0.002
EPTC	< 0.000097	<0.00011	N/A
Fluoranthene	< 0.000097	<0.00011	N/A
Fluorene	< 0.000097	<0.00011	N/A
gamma-BHC (Lindane)	< 0.000019	<0.000022	0.0002
gamma-Chlordane	< 0.000097	<0.00011	0.100
Heptachlor	< 0.0000097	<0.000011	0.0004
Heptachlor Epoxide	< 0.0000097	<0.000011	0.0002
Hexachlorobenzene	< 0.000097	<0.00011	0.001
Hexachlorocyclopentadiene	< 0.000097	<0.00011	0.05
Indeno[1,2,3-cd]pyrene	< 0.000097	<0.00011	0.0004
Malathion	< 0.000097	<0.00011	N/A

Table 9C: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	< 0.000097	<0.00011	0.04
Metolachlor	< 0.000097	<0.00011	N/A
Metribuzin	< 0.000097	<0.00011	N/A
Molinate	< 0.000097	<0.00011	N/A
Naphthalene	< 0.000097	<0.00011	N/A
Parathion	<0.00048	<0.00054	N/A
Phenanthrene	< 0.000097	<0.00011	N/A
Prometryn	< 0.000097	<0.00011	N/A
Propachlor	< 0.000097	<0.00011	N/A
Pyrene	< 0.000097	<0.00011	0.0002
Simazine	< 0.000068	<0.000075	0.004
Terbacil	< 0.000097	<0.00011	N/A
Thiobencarb	< 0.000097	<0.00011	N/A
trans-Nonachlor	< 0.000097	<0.00011	0.002
Trifluralin	< 0.000097	<0.00011	N/A

Table 10C: Soil Sampling Results

Analyte	NE perimeter fence, grazing side (mg/kg-dry)	Outside air intake of North wall (mg/kg-dry)	NW perimeter fence on grazing side (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10C: Soil Sampling Results Cont.

Analyte	SW perimeter fence on grazing side (mg/kg-dry)	Above the capsule (mg/kg-dry)	SE perimeter fence corner, grazing side (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11C: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	620 ppm	800 ppm	<1000 ppm
Relative Humidity	35%	32%	30% - 60%
Temperature	72.8 °F	76.2 °F	72°F - 80°F
Carbon Monoxide	0.3 ppm	1.7 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12C: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8	>8.5	6.5 - 8.5
Free Available Chlorine	0.67	0.65	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.82	0.55	> 0 mg/L; < 4 mg/L

Appendix 4: MAF DELTA (D-01) Results, Sampled on 25 June 2023

Table 1D: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
DC Power Battery Charger Access - Surface	Total PCBs	Not Detected	10
DC Power Battery Charger Access - Groundlevel	Total PCBs	Not Detected	10
Digital Data Group UA-3541 Reciever Data (SN: 0000127) - Surface	Total PCBs	Not Detected	10
Digital Data Group UA-3541 Reciever Data (SN: 0000127) - Groundlevel	Total PCBs	Not Detected	10
Left Side Keyboard Above T1/T2/T3 (SN: C110154)	Total PCBs	Not Detected	10
Left Side Visual Display Screen (SN: 0611B039)	Total PCBs	Not Detected	10
Right Side Keyboard Above T1/T2/T3 (SN: C109610)	Total PCBs	Not Detected	10
Right Side Visual Display Screen (SN: 0611B040)	Total PCBs	Not Detected	10
Wing 1 LCDB Panel (SN: 12-266294) - Surface	Total PCBs	Not Detected	10
Wing 1 LCDB Panel (SN: 12-266294) - Underside	Total PCBs	Not Detected	10
Entry LCC Capsule in Ceiling Power Cable Box	Total PCBs	Not Detected	10
SACS (Blue Tower) - Surface	Total PCBs	Not Detected	10
Elevator Entry Way CDE CDF-1002 - Underside	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
Elevator Entry Way CDE CDF-1002 – Floor	Total PCBs	Not Detected	10
Lactation Room Desk	Total PCBs	Not Detected	10
Common Area Phone	Total PCBs	Not Detected	10
Common Area Dining Table	Total PCBs	Not Detected	10
SCC Desk	Total PCBs	Not Detected	10
Door Handle to Elevator Room	Total PCBs	Not Detected	10

Table 2D: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3D: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4D: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	400	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4D: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5D: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6D: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.2	<4.3	30

Table 7D: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8D: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9D: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.00011	<0.000098	N/A
2-Methylnapthalene	<0.00011	<0.000098	N/A
4,4'-DDD	<0.00011	<0.000098	N/A
4,4'-DDE	<0.00011	<0.000098	N/A
4,4'-DDT	<0.00011	<0.000098	N/A
Acenaphthene	<0.00011	<0.000098	N/A
Acenaphthylene	<0.00011	<0.000098	N/A
Alachlor	<0.00011	<0.000098	0.002
Aldrin	<0.00011	<0.000098	0.00001
alpha-Chlordane	<0.00011	<0.000098	N/A

Table 9A: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.00011	<0.000098	N/A
Atrazine	<0.00011	<0.000098	0.003
Benzo[a]anthracene	<0.00011	<0.0002	0.0001
Benzo[a]pyrene	<0.000021	<0.000098	0.0002
Benzo[b]fluoranthene	<0.00011	<0.000098	0.0002
Benzo[g,h,i]perylene	<0.00011	<0.000098	N/A
Benzo[k]fluoranthene	<0.00011	<0.000098	0.0002
Bromacil	<0.00011	<0.000098	N/A
Butachlor	<0.00011	<0.000098	N/A
Butylbenzylphthalate	<0.0011	<0.00098	N/A
Chlorothalonil	<0.00011	<0.000098	N/A
Chrysene	<0.00011	<0.000098	0.0002
Cyanazine	<0.00011	<0.000098	N/A
Deisopropylatrazine	<0.0011	<0.00098	N/A
Desethylatrazine	<0.0011	<0.00098	N/A
Di(2-ethylhexyl)phthalate	<0.00064	<0.00059	0.006
Di(2-ethylhexyl)adipate	<0.00064	<0.00059	0.40
Diazinon	<0.00011	<0.000098	N/A
Dibenz[a,h]anthracene	<0.00011	<0.000098	0.0003
Dieldrin	<0.00011	<0.000098	N/A
Diethylphthalate	<0.0011	<0.00098	N/A
Dimethoate	<0.00054	<0.00049	N/A
Dimethylphthalate	<0.0011	<0.00098	N/A
Di-n-butylphthalate	<0.0021	<0.002	N/A
Di-n-octylphthalate	<0.0021	<0.002	N/A
Endrin	<0.000011	<0.0000098	0.002
EPTC	<0.00011	<0.000098	N/A
Fluoranthene	<0.00011	<0.000098	N/A
Fluorene	<0.00011	<0.000098	N/A
gamma-BHC (Lindane)	<0.000021	<0.00002	0.0002
gamma-Chlordane	<0.00011	<0.000098	0.100
Heptachlor	<0.000011	<0.0000098	0.0004
Heptachlor Epoxide	<0.000011	<0.0000098	0.0002
Hexachlorobenzene	<0.00011	<0.000098	0.001
Hexachlorocyclopentadiene	<0.00011	<0.000098	0.05
Indeno[1,2,3-cd]pyrene	<0.00011	<0.000098	0.0004
Malathion	<0.00011	<0.000098	N/A

Table 9D: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.00011	<0.000098	0.04
Metolachlor	<0.00011	<0.000098	N/A
Metribuzin	<0.00011	<0.000098	N/A
Molinate	<0.00011	<0.000098	N/A
Naphthalene	<0.00011	<0.000098	N/A
Parathion	<0.00054	<0.00049	N/A
Phenanthrene	<0.00011	<0.000098	N/A
Prometryn	<0.00011	<0.000098	N/A
Propachlor	<0.00011	<0.000098	N/A
Pyrene	<0.00011	<0.000098	0.0002
Simazine	<0.000075	<0.000069	0.004
Terbacil	<0.00011	<0.000098	N/A
Thiobencarb	<0.00011	<0.000098	N/A
trans-Nonachlor	<0.00011	<0.000098	0.002
Trifluralin	<0.00011	<0.000098	N/A

Table 10D: Soil Sampling Results

Analyte	NW of MAF, 20 ft from corner of bldg (mg/kg-dry)	3 ft from outside air intake (mg/kg-dry)	SE corner of MAF (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10D: Soil Sampling Results Cont.

Analyte	SW corner of MAF, 5 ft from corner of fence (mg/kg-dry)	NW corner of MAF, 5 ft from corner of fence (mg/kg-dry)	NE corner of MAF (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11D: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	640 ppm	605 ppm	<1000 ppm
Relative Humidity	48.4%	38.5%	30% - 60%
Temperature	73.7 °F	No Data	72°F - 80°F
Carbon Monoxide	1.2 ppm	4.1 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12D: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.83	0.76	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.85	0.79	> 0 mg/L; < 4 mg/L

Appendix 5: MAF ECHO (E-01) Results, Sampled on 29 June 2023

Table 1E: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power 60 Cycle - Top	Total PCBs	Not Detected	10
AC Power 60 Cycle - Bottom	Total PCBs	Not Detected	10
Power Supply Group - Top	Total PCBs	Not Detected	10
Power Supply Group - Middle	Total PCBs	Not Detected	10
Power Supply Group - Bottom	Total PCBs	Not Detected	10
Digital Data Group - Top	Total PCBs	Not Detected	10
Digital Data Group - Middle	Total PCBs	Not Detected	10
Digital Data Group - Bottom	Total PCBs	Not Detected	10
Fridge Handle	Total PCBs	Not Detected	10
Left Console Keyboard	Total PCBs	Not Detected	10
Left Console Screen	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
Right Console Screen	Total PCBs	Not Detected	10
Wing 1 LCDB Panel (Front Face)	Total PCBs	Not Detected	10
Oxygen Regenerator - Top	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Bottom	Total PCBs	Not Detected	10
Latrine Handle	Total PCBs	Not Detected	10
Electromagnetic Filter - Bottom	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
MPP Automatic Switching Unit (ASU)	Total PCBs	Not Detected	10

Table 2E: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3E: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4E: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	74	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4E: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5E: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6E: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<4.3	30

Table 7E: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8E: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9E: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.0001	N/A
2-Methylnapthalene	<0.0001	<0.0001	N/A
4,4'-DDD	<0.0001	<0.0001	N/A
4,4'-DDE	<0.0001	<0.0001	N/A
4,4'-DDT	<0.0001	<0.0001	N/A
Acenaphthene	<0.0001	<0.0001	N/A
Acenaphthylene	<0.0001	<0.0001	N/A
Alachlor	<0.0001	<0.0001	0.002
Aldrin	<0.0001	<0.0001	0.00001
alpha-Chlordane	<0.0001	<0.0001	N/A

Table 9E: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.0001	N/A
Atrazine	<0.0001	<0.0001	0.003
Benzo[a]anthracene	<0.0001	<0.0001	0.0001
Benzo[a]pyrene	<0.00002	<0.00002	0.0002
Benzo[b]fluoranthene	<0.0001	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.0001	N/A
Benzo[k]fluoranthene	<0.0001	<0.0001	0.0002
Bromacil	<0.0001	<0.0001	N/A
Butachlor	<0.0001	<0.0001	N/A
Butylbenzylphthalate	<0.001	<0.001	N/A
Chlorothalonil	<0.0001	<0.0001	N/A
Chrysene	<0.0001	<0.0001	0.0002
Cyanazine	<0.0001	<0.0001	N/A
Deisopropylatrazine	<0.001	<0.001	N/A
Desethylatrazine	<0.001	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.00061	<0.00061	0.006
Di(2-ethylhexyl)adipate	<0.00061	<0.00061	0.40
Diazinon	<0.0001	<0.0001	N/A
Dibenz[a,h]anthracene	<0.0001	<0.0001	0.0003
Dieldrin	<0.0001	<0.0001	N/A
Diethylphthalate	<0.001	<0.001	N/A
Dimethoate	<0.00051	<0.00051	N/A
Dimethylphthalate	<0.001	<0.001	N/A
Di-n-butylphthalate	<0.002	<0.002	N/A
Di-n-octylphthalate	<0.002	<0.002	N/A
Endrin	<0.00001	<0.00001	0.002
EPTC	<0.0001	<0.0001	N/A
Fluoranthene	<0.0001	<0.0001	N/A
Fluorene	<0.0001	<0.0001	N/A
gamma-BHC (Lindane)	<0.00002	<0.00002	0.0002
gamma-Chlordane	<0.0001	<0.0001	0.100
Heptachlor	<0.00001	<0.00001	0.0004
Heptachlor Epoxide	<0.00001	<0.00001	0.0002
Hexachlorobenzene	<0.0001	<0.0001	0.001
Hexachlorocyclopentadiene	<0.0001	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.0001	0.0004
Malathion	<0.0001	<0.0001	N/A

Table 9E: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.0001	0.04
Metolachlor	<0.0001	<0.0001	N/A
Metribuzin	<0.0001	<0.0001	N/A
Molinate	<0.0001	<0.0001	N/A
Naphthalene	<0.0001	<0.0001	N/A
Parathion	<0.00051	<0.00051	N/A
Phenanthrene	<0.0001	<0.0001	N/A
Prometryn	<0.0001	<0.0001	N/A
Propachlor	<0.0001	<0.0001	N/A
Pyrene	<0.0001	<0.0001	0.0002
Simazine	<0.000072	<0.000071	0.004
Terbacil	<0.0001	<0.0001	N/A
Thiobencarb	<0.0001	<0.0001	N/A
trans-Nonachlor	<0.0001	<0.0001	0.002
Trifluralin	<0.0001	<0.0001	N/A

Table 10E: Soil Sampling Results

Analyte	SE corner of MAF, 5 ft from fence (mg/kg-dry)	NE corner of MAF, 5 ft from fence (mg/kg-dry)	NW corner of MAF, 5 ft from corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10E: Soil Sampling Results Cont.

Analyte	SW corner of MAF, 5 ft from fence (mg/kg-dry)	Outside Room 103 intake, 15 ft from bldg (mg/kg-dry)	East fence line ditch, near NE corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11E: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	672 ppm	514 ppm	<1000 ppm
Relative Humidity	57.4%	62.4%	30% - 60%
Temperature	72.3 °F	69.7 °F	72°F - 80°F
Carbon Monoxide	0 ppm	1.2 ppm	25 ppm (8-hr TWA)
Ozone	0.05 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12E: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.6	0.05	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.47	0.26	> 0 mg/L; < 4 mg/L

Appendix 6: MAF FOXTROT (F-01) Results, Sampled on 26 June 2023

Table 1F: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Receiver Digital Data - Surface (SN: 0003033)	Total PCBs	Not Detected	10
Receiver Digital Data - underside (SN: 0003033)	Total PCBs	Not Detected	10
Battery Charger Access - Surface (Left of bed)	Total PCBs	Not Detected	10
Battery Charger Access – Ground level (Left of bed)	Total PCBs	Not Detected	10
Left of Operator Console (SN: C109704)	Total PCBs	Not Detected	10
Right of Operator Console (SN: C109570)	Total PCBs	Not Detected	10
Right Side Monitor Board (SN: 0549B065)	Total PCBs	Not Detected	10
Left of Operator Console (SN: 0549B068)	Total PCBs	Not Detected	10
Circuit Breaker (SN: 12-26294/4-014)	Total PCBs	Not Detected	10
Circuit Breaker - Underside (SN: 12-26294/4-014)	Total PCBs	2.0	10
	Aroclor 1254	2.0	10
Ceiling PCB Box	Total PCBs	Not Detected	10
Oxygen Regeneration Unit - Top (SN: 0410044)	Total PCBs	1.08	10
	(Aroclor 1254)	1.08	10
Oxygen Regeneration Unit - Underside (SN: 0410044)	Total PCBs	Not Detected	10
Wall under Electromagnetic Interference Filter (near elevator)	Total PCBs	Not Detected	10
Floor under Electromagnetic Interference Filter (near elevator)	Total PCBs	Not Detected	10
Elevator Control Panel around Buttons	Total PCBs	Not Detected	10
Elevator Inside Exit Door Handle (upstairs)	Total PCBs	Not Detected	10
SF Desk (Right of Phone)	Total PCBs	Not Detected	10
Phone in Common Area Near Building Exit	Total PCBs	Not Detected	10
Lactation Room Desk Surface	Total PCBs	Not Detected	10

Table 2F: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3F: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4F: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4F: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5F: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6F: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.2	<4.5	30

Table 7F: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8F: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9F: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.0001	N/A
2-Methylnapthalene	<0.0001	<0.0001	N/A
4,4'-DDD	<0.0001	<0.0001	N/A
4,4'-DDE	<0.0001	<0.0001	N/A
4,4'-DDT	<0.0001	<0.0001	N/A
Acenaphthene	<0.0001	<0.0001	N/A
Acenaphthylene	<0.0001	<0.0001	N/A
Alachlor	<0.0001	<0.0001	0.002
Aldrin	<0.0001	<0.0001	0.00001
alpha-Chlordane	<0.0001	<0.0001	N/A

Table 9F: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.0001	N/A
Atrazine	<0.0001	<0.0001	0.003
Benzo[a]anthracene	<0.0001	<0.0001	0.0001
Benzo[a]pyrene	<0.000021	<0.00002	0.0002
Benzo[b]fluoranthene	<0.0001	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.0001	N/A
Benzo[k]fluoranthene	<0.0001	<0.0001	0.0002
Bromacil	<0.0001	<0.0001	N/A
Butachlor	<0.0001	<0.0001	N/A
Butylbenzylphthalate	<0.001	<0.001	N/A
Chlorothalonil	<0.0001	<0.0001	N/A
Chrysene	<0.0001	<0.0001	0.0002
Cyanazine	<0.0001	<0.0001	N/A
Deisopropylatrazine	<0.001	<0.001	N/A
Desethylatrazine	<0.001	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.00062	<0.0001	0.006
Di(2-ethylhexyl)adipate	<0.00062	<0.00061	0.40
Diazinon	<0.0001	<0.0001	N/A
Dibenz[a,h]anthracene	<0.0001	<0.0001	0.0003
Dieldrin	<0.0001	<0.0001	N/A
Diethylphthalate	<0.001	<0.001	N/A
Dimethoate	<0.00052	<0.001	N/A
Dimethylphthalate	<0.001	<0.00051	N/A
Di-n-butylphthalate	<0.0021	<0.002	N/A
Di-n-octylphthalate	<0.0021	<0.002	N/A
Endrin	<0.00001	<0.0001	0.002
EPTC	<0.0001	<0.0001	N/A
Fluoranthene	<0.0001	<0.0001	N/A
Fluorene	<0.0001	<0.0001	N/A
gamma-BHC (Lindane)	<0.000021	<0.0001	0.0002
gamma-Chlordane	<0.0001	<0.0001	0.100
Heptachlor	<0.00001	<0.00001	0.0004
Heptachlor Epoxide	<0.00001	<0.00001	0.0002
Hexachlorobenzene	<0.0001	<0.0001	0.001
Hexachlorocyclopentadiene	<0.0001	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.0001	0.0004
Malathion	<0.0001	<0.0001	N/A

Table 9F: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.0001	0.04
Metolachlor	<0.0001	<0.0001	N/A
Metribuzin	<0.0001	<0.0001	N/A
Molinate	<0.0001	<0.0001	N/A
Naphthalene	<0.0001	<0.0001	N/A
Parathion	<0.00052	<0.00051	N/A
Phenanthrene	<0.0001	<0.0001	N/A
Prometryn	<0.0001	<0.0001	N/A
Propachlor	<0.0001	<0.0001	N/A
Pyrene	<0.0001	<0.0001	0.0002
Simazine	<0.000072	<0.000071	0.004
Terbacil	<0.0001	<0.0001	N/A
Thiobencarb	<0.0001	<0.0001	N/A
trans-Nonachlor	<0.0001	<0.0001	0.002
Trifluralin	<0.0001	<0.0001	N/A

Table 10F: Soil Sampling Results

Analyte	5 ft from HVAC intake (mg/kg-dry)	40 ft from cone (in between MAF and cone) (mg/kg-dry)	SW corner, 5 ft from corner of wind vane post (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10F: Soil Sampling Results Cont.

Analyte	NW corner, 5 ft from corner of fence (mg/kg-dry)	NE Corner, 5 ft from fence (mg/kg-dry)	SE Corner, 5 ft from fence (mg/kg-dry)
Methyl Parathion	Not Detected	No data. Sample broke during shipment.	No data. Sample broke during shipment.
Phorate	Not Detected		
Parathion	Not Detected		
Methamidophos	Not Detected		
Malathion	Not Detected		
Ethoprop	Not Detected		
Dicrotophos	Not Detected		
Diazinon	Not Detected		
Chlorpyrifos	Not Detected		
Terbufos	Not Detected		

Table 11F: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	800 ppm	666 ppm	<1000 ppm
Relative Humidity	48.3%	48%	30% - 60%
Temperature	66.4°F	67°F	72°F - 80°F
Carbon Monoxide	0.7 ppm	2 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12F: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	8.4	6.5 - 8.5
Free Available Chlorine	0.56	0.46	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.57	0.6	> 0 mg/L; < 4 mg/L

Appendix 7: MAF GOLF (G-01) Results, Sampled on 25 June 2023

Table 1G: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power Box - Top	Total PCBs	Not Detected	10
AC Power Box - Bottom	Total PCBs	Not Detected	10
Power Supply Group - Top	Total PCBs	Not Detected	10
Power Supply Group - Bottom	Total PCBs	Not Detected	10
Digital Data Group - Top (Left of Console)	Total PCBs	Not Detected	10
Digital Data Group - Bottom (Left of Console)	Total PCBs	Not Detected	10
Left Console Keyboard	Total PCBs	Not Detected	10
Left Console Screen	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
Right Console Screen	Total PCBs	Not Detected	10
Fridge Bottom handle	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Inside	Total PCBs	Not Detected	10
Oxygen Regeneration Unit - Top	Total PCBs	Not Detected	10
Bathroom Door Handle	Total PCBs	Not Detected	10
CDF - 1002 - Underneath	Total PCBs	Not Detected	10
LCC Elevator Buttons	Total PCBs	Not Detected	10
LCC -> SF Comm Rm Door Handle	Total PCBs	Not Detected	10
SF Comm Rm Desk (By Computer Mouse)	Total PCBs	Not Detected	10
MPP, Auto Switching Unit Handle	Total PCBs	Not Detected	10
Brown Box Above "Unit Ref Des. 325" (Underneath Where Door and Unit Meet)	Total PCBs	Not Detected	10

Table 2G: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3G: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4G: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4G: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5G: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6G: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<3.9	30

Table 7G: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8G: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	No data. Samples broke during shipment.	No data. Samples broke during shipment.	0.002
PCB-1221			0.002
PCB-1232			0.002
PCB-1242			0.002
PCB-1248			0.002
PCB-1254			0.002
PCB-1260			0.002
Total PCBs			0.002

Table 9G: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	< 0.0001	<0.000097	N/A
2-Methylnapthalene	< 0.0001	<0.000097	N/A
4,4'-DDD	< 0.0001	<0.000097	N/A
4,4'-DDE	< 0.0001	<0.000097	N/A
4,4'-DDT	< 0.0001	<0.000097	N/A
Acenaphthene	< 0.0001	<0.000097	N/A
Acenaphthylene	< 0.0001	<0.000097	N/A
Alachlor	< 0.0001	<0.000097	0.002
Aldrin	< 0.0001	<0.000097	0.00001
alpha-Chlordane	< 0.0001	<0.000097	N/A

Table 9G: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	< 0.0001	<0.000097	N/A
Atrazine	< 0.0001	<0.000097	0.003
Benzo[a]anthracene	< 0.0001	<0.000097	0.0001
Benzo[a]pyrene	< 0.00002	<0.000019	0.0002
Benzo[b]fluoranthene	< 0.0001	<0.000097	0.0002
Benzo[g,h,i]perylene	< 0.0001	<0.000097	N/A
Benzo[k]fluoranthene	< 0.0001	<0.000097	0.0002
Bromacil	< 0.0001	<0.000097	N/A
Butachlor	< 0.0001	<0.000097	N/A
Butylbenzylphthalate	< 0.001	<0.00097	N/A
Chlorothalonil	< 0.0001	<0.000097	N/A
Chrysene	< 0.0001	<0.000097	0.0002
Cyanazine	< 0.0001	<0.000097	N/A
Deisopropylatrazine	< 0.001	<0.00097	N/A
Desethylatrazine	< 0.001	<0.00097	N/A
Di(2-ethylhexyl)phthalate	< 0.00061	0.00095	0.006
Di(2-ethylhexyl)adipate	< 0.00061	<0.00058	0.40
Diazinon	< 0.0001	<0.000097	N/A
Dibenz[a,h]anthracene	< 0.0001	<0.000097	0.0003
Dieldrin	< 0.0001	<0.000097	N/A
Diethylphthalate	< 0.001	<0.00097	N/A
Dimethoate	< 0.00051	<0.00049	N/A
Dimethylphthalate	< 0.001	<0.00097	N/A
Di-n-butylphthalate	< 0.002	<0.0019	N/A
Di-n-octylphthalate	< 0.002	<0.0019	N/A
Endrin	< 0.00001	<0.0000097	0.002
EPTC	< 0.0001	<0.000097	N/A
Fluoranthene	< 0.0001	<0.000097	N/A
Fluorene	< 0.0001	<0.000097	N/A
gamma-BHC (Lindane)	< 0.00002	<0.000019	0.0002
gamma-Chlordane	< 0.0001	<0.000097	0.100
Heptachlor	< 0.00001	<0.0000097	0.0004
Heptachlor Epoxide	< 0.00001	<0.0000097	0.0002
Hexachlorobenzene	< 0.0001	<0.000097	0.001
Hexachlorocyclopentadiene	< 0.0001	<0.000097	0.05
Indeno[1,2,3-cd]pyrene	< 0.0001	<0.000097	0.0004
Malathion	< 0.0001	<0.000097	N/A

Table 9G: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	< 0.0001	<0.000097	0.04
Metolachlor	< 0.0001	<0.000097	N/A
Metribuzin	< 0.0001	<0.000097	N/A
Molinate	< 0.0001	<0.000097	N/A
Naphthalene	< 0.0001	<0.000097	N/A
Parathion	< 0.00051	<0.00049	N/A
Phenanthrene	< 0.0001	<0.000097	N/A
Prometryn	< 0.0001	<0.000097	N/A
Propachlor	< 0.0001	<0.000097	N/A
Pyrene	< 0.0001	<0.000097	0.0002
Simazine	< 0.000071	<0.000068	0.004
Terbacil	< 0.0001	<0.000097	N/A
Thiobencarb	< 0.0001	<0.000097	N/A
trans-Nonachlor	< 0.0001	<0.000097	0.002
Trifluralin	< 0.0001	<0.000097	N/A

Table 10G: Soil Sampling Results

Analyte	NE Corner outside fence (mg/kg-dry)	NW corner outside fence (mg/kg-dry)	SW corner outside fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10G: Soil Sampling Results Cont.

Analyte	SE corner outside fence (mg/kg-dry)	NE corner inside fence over capsule (mg/kg-dry)	NE corner inside fence near air intake vent (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11G: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	664 ppm	573 ppm	<1000 ppm
Relative Humidity	42.9%	31.4%	30% - 60%
Temperature	75.1 °F	72.7 °F	72°F - 80°F
Carbon Monoxide	0 ppm	2.7 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12G: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	7.4	7.4	6.5 - 8.5
Free Available Chlorine	0	0	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0	0.07	> 0 mg/L; < 4 mg/L

Appendix 8: MAF HOTEL (H-01) Results, Sampled on 29 June 2023

Table 1H: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Receiver Digital Data R-1131 - Surface (SN: 10002003)	Total PCBs	Not Detected	10
Receiver Digital Data R-1131 – Ground level (SN: 10002003)	Total PCBs	Not Detected	10
Battery Access Charger - Surface	Total PCBs	Not Detected	10
Battery Access Charger - Groundlevel	Total PCBs	Not Detected	10
Left Keyboard - Above T1/T2/T3 (SN: 109623)	Total PCBs	Not Detected	10
Left Side Visual Display Screen	Total PCBs	Not Detected	10
Right Keyboard - Above T1/T2/T9	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Surface (SN: 12-26294/4-010)	Total PCBs	1.07	10
	Aroclor 1254	1.07	10
Wing 1 LCDB Panel - Underneath (SN: 12-26294/4-010)	Total PCBs	10.4	10
	Aroclor 1254	10.4	10
Box in Ceiling in Entry to Capsule	Total PCBs	Not Detected	10
Right Side Visual Display Screen	Total PCBs	Not Detected	10
Electromagnetic Interface Filter CDF-1002 Box Outside Elevator	Total PCBs	Not Detected	10
Floor Below Electromagnetic Interface Filter CDF-1002 Box Outside Elevator	Total PCBs	2.36	10
	Aroclor 1254	2.36	10
Elevator Buttons	Total PCBs	Not Detected	10
Door Handle Elevator -> SCC	Total PCBs	Not Detected	10
SF Desk in Comm Rm	Total PCBs	Not Detected	10
Common Rm Dining Table	Total PCBs	Not Detected	10
Common Rm Phone	Total PCBs	Not Detected	10
Desk in Lactation Rm	Total PCBs	Not Detected	10
DEU Box in Rm 109	Total PCBs	Not Detected	10

Table 2H: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3H: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4H: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4H: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5H: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	4.7	4.6	10

Table 6H: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<4.4	30

Table 7H: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8H: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9H: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.00011	<0.0001	N/A
2-Methylnapthalene	<0.00011	<0.0001	N/A
4,4'-DDD	<0.00011	<0.0001	N/A
4,4'-DDE	<0.00011	<0.0001	N/A
4,4'-DDT	<0.00011	<0.0001	N/A
Acenaphthene	<0.00011	<0.0001	N/A
Acenaphthylene	<0.00011	<0.0001	N/A
Alachlor	<0.00011	<0.0001	0.002
Aldrin	<0.00011	<0.0001	0.00001
alpha-Chlordane	<0.00011	<0.0001	N/A

Table 9H: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.00011	<0.0001	N/A
Atrazine	<0.00011	<0.0001	0.003
Benzo[a]anthracene	<0.00011	<0.0001	0.0001
Benzo[a]pyrene	<0.000021	<0.00002	0.0002
Benzo[b]fluoranthene	<0.00011	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.00011	<0.0001	N/A
Benzo[k]fluoranthene	<0.00011	<0.0001	0.0002
Bromacil	<0.00011	<0.0001	N/A
Butachlor	<0.00011	<0.0001	N/A
Butylbenzylphthalate	<0.0011	<0.001	N/A
Chlorothalonil	<0.00011	<0.0001	N/A
Chrysene	<0.00011	<0.0001	0.0002
Cyanazine	<0.00011	<0.0001	N/A
Deisopropylatrazine	<0.0011	<0.001	N/A
Desethylatrazine	<0.0011	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.00063	<0.00061	0.006
Di(2-ethylhexyl)adipate	<0.00063	<0.00061	0.40
Diazinon	<0.00011	<0.0001	N/A
Dibenz[a,h]anthracene	<0.00011	<0.0001	0.0003
Dieldrin	<0.00011	<0.0001	N/A
Diethylphthalate	<0.0011	<0.001	N/A
Dimethoate	<0.00053	<0.00051	N/A
Dimethylphthalate	<0.0011	<0.001	N/A
Di-n-butylphthalate	<0.0021	<0.002	N/A
Di-n-octylphthalate	<0.0021	<0.002	N/A
Endrin	<0.000011	<0.00001	0.002
EPTC	<0.00011	<0.0001	N/A
Fluoranthene	<0.00011	<0.0001	N/A
Fluorene	<0.00011	<0.0001	N/A
gamma-BHC (Lindane)	<0.000021	<0.00002	0.0002
gamma-Chlordane	<0.00011	<0.0001	0.100
Heptachlor	<0.000011	<0.00001	0.0004
Heptachlor Epoxide	<0.000011	<0.00001	0.0002
Hexachlorobenzene	<0.00011	<0.0001	0.001
Hexachlorocyclopentadiene	<0.00011	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.00011	<0.0001	0.0004
Malathion	<0.00011	<0.0001	N/A

Table 9H: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.00011	<0.0001	0.04
Metolachlor	<0.00011	<0.0001	N/A
Metribuzin	<0.00011	<0.0001	N/A
Molinate	<0.00011	<0.0001	N/A
Naphthalene	<0.00011	<0.0001	N/A
Parathion	<0.00053	<0.00051	N/A
Phenanthrene	<0.00011	<0.0001	N/A
Prometryn	<0.00011	<0.0001	N/A
Propachlor	<0.00011	<0.0001	N/A
Pyrene	<0.00011	<0.0001	0.0002
Simazine	<0.000074	<0.000071	0.004
Terbacil	<0.00011	<0.0001	N/A
Thiobencarb	<0.00011	<0.0001	N/A
trans-Nonachlor	<0.00011	<0.0001	0.002
Trifluralin	<0.00011	<0.0001	N/A

Table 10H: Soil Sampling Results

Analyte	Above capsule (mg/kg-dry)	Above HVAC (mg/kg-dry)	SW corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10H: Soil Sampling Results Cont.

Analyte	NW Corner (mg/kg-dry)	NE Corner (mg/kg-dry)	SE Corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11H: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	592 ppm	615 ppm	<1000 ppm
Relative Humidity	49.4%	41.9%	30% - 60%
Temperature	71.4 °F	68.9 °F	72°F - 80°F
Carbon Monoxide	0 ppm	1.4 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12H: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	015	0.15	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.34	0.21	> 0 mg/L; < 4 mg/L

Appendix 9: MAF INDIA (I-01) Results, Sampled on 24 June 2023

Table 1I: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Digital Data Receiver - Underside (SN: 0003038)	Total PCBs	Not Detected	10
Digital Data Receiver - Surface (SN: 0003038)	Total PCBs	Not Detected	10
DC Power Battery Charger Access - Surface	Total PCBs	Not Detected	10
DC Power Battery Charger Access - Groundlevel	Total PCBs	Not Detected	10
Left Side Keyboard Console (SN: C109601)	Total PCBs	Not Detected	10
Right Side Keyboard Console (SN: C109546)	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Surface (12-26294/4-001)	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Underside (12-26294/4-001)	Total PCBs	2010	10
	Aroclor1260	2010	10
Ceiling Entry in Roof of Capsule	Total PCBs	3.79	10
	Aroclor1260	3.79	10
Right Side Visual Display Screen	Total PCBs	9.25	10
	Aroclor1260	9.25	10
Left Side Visual Display Screen	Total PCBs	5.96	10
	Aroclor1260	5.96	10
Power Supply PP4359/17SW-10 - Surface (SN: 0000070)	Total PCBs	3.58	10
	Aroclor1260	3.58	10
Power Supply PP4359/17SW-10 - Underside (SN: 0000070)	Total PCBs	3.26	10
	Aroclor1260	3.26	10
Electromagnetic Interface Filter CDF-1002 Wall Below (Entryway)	Total PCBs	2.32	10
	Aroclor1260	2.32	10
Phone Common Area	Total PCBs	Not Detected	10
Electromagnetic Interface Filter CDF-1002 Floor Below (Entryway)	Total PCBs	4.09	10
	Aroclor1260	4.09	10
Lactation Rm Desk	Total PCBs	Not Detected	10
SCC Desk by Computer	Total PCBs	Not Detected	10
Door Handle in Elevator Shaftway	Total PCBs	Not Detected	10
Buttons in Elevator	Total PCBs	Not Detected	10

Table 2I: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3I: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4I: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	270	230
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4I: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5I: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	0.14	0.14	10

Table 6I: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.0	<4.0	30

Table 7I: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8I: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9I: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.00011	N/A
2-Methylnapthalene	<0.0001	<0.00011	N/A
4,4'-DDD	<0.0001	<0.00011	N/A
4,4'-DDE	<0.0001	<0.00011	N/A
4,4'-DDT	<0.0001	<0.00011	N/A
Acenaphthene	<0.0001	<0.00011	N/A
Acenaphthylene	<0.0001	<0.00011	N/A
Alachlor	<0.0001	<0.00011	0.002
Aldrin	<0.0001	<0.00011	0.00001
alpha-Chlordane	<0.0001	<0.00011	N/A

Table 9I: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.00011	N/A
Atrazine	<0.0001	<0.00011	0.003
Benzo[a]anthracene	<0.0001	<0.00011	0.0001
Benzo[a]pyrene	<0.0001	<0.000022	0.0002
Benzo[b]fluoranthene	<0.00002	<0.00011	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.00011	N/A
Benzo[k]fluoranthene	<0.0001	<0.00011	0.0002
Bromacil	<0.0001	<0.00011	N/A
Butachlor	<0.0001	<0.00011	N/A
Butylbenzylphthalate	<0.001	<0.0011	N/A
Chlorothalonil	<0.0001	<0.00011	N/A
Chrysene	<0.0001	<0.00011	0.0002
Cyanazine	<0.0001	<0.00011	N/A
Deisopropylatrazine	<0.001	<0.0011	N/A
Desethylatrazine	<0.001	<0.0011	N/A
Di(2-ethylhexyl)phthalate	<0.00061	<0.00065	0.006
Di(2-ethylhexyl)adipate	<0.00061	<0.00065	0.40
Diazinon	<0.0001	<0.00011	N/A
Dibenz[a,h]anthracene	<0.0001	<0.00011	0.0003
Dieldrin	<0.0001	<0.00011	N/A
Diethylphthalate	<0.001	<0.0011	N/A
Dimethoate	<0.00051	<0.00054	N/A
Dimethylphthalate	<0.001	<0.0011	N/A
Di-n-butylphthalate	<0.002	<0.0022	N/A
Di-n-octylphthalate	<0.002	<0.0022	N/A
Endrin	<0.00001	<0.000011	0.002
EPTC	<0.0001	<0.00011	N/A
Fluoranthene	<0.0001	<0.00011	N/A
Fluorene	<0.0001	<0.00011	N/A
gamma-BHC (Lindane)	<0.00002	<0.000022	0.0002
gamma-Chlordane	<0.0001	<0.00011	0.100
Heptachlor	<0.00001	<0.000011	0.0004
Heptachlor Epoxide	<0.00001	<0.000011	0.0002
Hexachlorobenzene	<0.0001	<0.00011	0.001
Hexachlorocyclopentadiene	<0.0001	<0.00011	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.00011	0.0004
Malathion	<0.0001	<0.00011	N/A

Table 9I: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.00011	0.04
Metolachlor	<0.0001	<0.00011	N/A
Metribuzin	<0.0001	<0.00011	N/A
Molinate	<0.0001	<0.00011	N/A
Naphthalene	<0.0001	<0.00011	N/A
Parathion	<0.00051	<0.00054	N/A
Phenanthrene	<0.0001	<0.00011	N/A
Prometryn	<0.0001	<0.00011	N/A
Propachlor	<0.0001	<0.00011	N/A
Pyrene	<0.0001	<0.00011	0.0002
Simazine	<0.000071	<0.000075	0.004
Terbacil	<0.0001	<0.00011	N/A
Thiobencarb	<0.0001	<0.00011	N/A
trans-Nonachlor	<0.0001	<0.00011	0.002
Trifluralin	<0.0001	<0.00011	N/A

Table 10I: Soil Sampling Results

Analyte	5 ft from MAF intake vent (mg/kg-dry)	17 ft from UHF Radio Antenna (mg/kg-dry)	SW of MAF, 17 ft 5 in from fence post corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10I: Soil Sampling Results Cont.

Analyte	NW of MAF, 14 ft from fence post corner (mg/kg-dry)	NE of MAF, 6 ft from fence post corner (mg/kg-dry)	SE of MAF, 20 ft from fence post corner (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11I: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	670 ppm	490 ppm	<1000 ppm
Relative Humidity	58%	31.9%	30% - 60%
Temperature	68 °F	73.1 °F	72°F - 80°F
Carbon Monoxide	0.2 ppm	3 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12I: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.36	0.36	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.35	0.37	> 0 mg/L; < 4 mg/L

Appendix 10: MAF JULIET (J-01) Results, Sampled on 24 June 2023

Table 1J: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power Box - Top Handle	Total PCBs	Not Detected	10
AC Power Box - Bottom Handle	Total PCBs	Not Detected	10
Digital Data Group - Top	Total PCBs	Not Detected	10
Digital Data Group - Bottom	Total PCBs	Not Detected	10
Control Power Supply - Bottom for Leaks	Total PCBs	Not Detected	10
Left Console Keyboard (SN: C109617)	Total PCBs	1.29	10
	Aroclor 1254	1.29	10
Left Console Right Screen (SN: 0302B057)	Total PCBs	Not Detected	10
Right Console Keyboard (SN: C109565)	Total PCBs	Not Detected	10
Right Console Right Screen (SN: 0602B054)	Total PCBs	Not Detected	10
Fridge Handle - Underside	Total PCBs	Not Detected	10
DRS Sustainment System - Right Side Buttons (Part: EAS81915-102)	Total PCBs	Not Detected	10
Oxygen Regeneration Unit (PCB Box Behind SAX Switch Box - Under LCDB Panel	Total PCBs	Not Detected	10
LCDB Panel - Inside	Total PCBs	Not Detected	10
Bathroom Handle	Total PCBs	Not Detected	10
CDF-1002 (Entry) - Bottom of Unit	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
Door Handle (SF Comm Room)	Total PCBs	Not Detected	10
SF Comm Room (Desk Around Phone)	Total PCBs	Not Detected	10
SF Comm Room (Door Handle)	Total PCBs	Not Detected	10
MPP	Total PCBs	Not Detected	10

Table 2J: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3J: Air Sampling Results –Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4J: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4J: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5J: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	4.4	4.4	10

Table 6J: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<4.2	30

Table 7J: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8J: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9J: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	< 0.00011	N/A
2-Methylnapthalene	<0.0001	< 0.00011	N/A
4,4'-DDD	<0.0001	< 0.00011	N/A
4,4'-DDE	<0.0001	< 0.00011	N/A
4,4'-DDT	<0.0001	< 0.00011	N/A
Acenaphthene	<0.0001	< 0.00011	N/A
Acenaphthylene	<0.0001	< 0.00011	N/A
Alachlor	<0.0001	< 0.00011	0.002
Aldrin	<0.0001	< 0.00011	0.00001
alpha-Chlordane	<0.0001	< 0.00011	N/A

Table 9J: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	< 0.00011	N/A
Atrazine	<0.0001	< 0.00011	0.003
Benzo[a]anthracene	<0.0001	< 0.00011	0.0001
Benzo[a]pyrene	<0.00002	< 0.000022	0.0002
Benzo[b]fluoranthene	<0.0001	< 0.00011	0.0002
Benzo[g,h,i]perylene	<0.0001	< 0.00011	N/A
Benzo[k]fluoranthene	<0.0001	< 0.00011	0.0002
Bromacil	<0.0001	< 0.00011	N/A
Butachlor	<0.0001	< 0.00011	N/A
Butylbenzylphthalate	<0.001	< 0.0011	N/A
Chlorothalonil	<0.0001	< 0.00011	N/A
Chrysene	<0.0001	< 0.00011	0.0002
Cyanazine	<0.0001	< 0.00011	N/A
Deisopropylatrazine	<0.001	< 0.0011	N/A
Desethylatrazine	<0.001	< 0.0011	N/A
Di(2-ethylhexyl)phthalate	<0.0006	< 0.00065	0.006
Di(2-ethylhexyl)adipate	<0.0006	< 0.00065	0.40
Diazinon	<0.0001	< 0.00011	N/A
Dibenz[a,h]anthracene	<0.0001	< 0.00011	0.0003
Dieldrin	<0.0001	< 0.00011	N/A
Diethylphthalate	<0.001	< 0.0011	N/A
Dimethoate	<0.0005	< 0.00054	N/A
Dimethylphthalate	<0.001	< 0.0011	N/A
Di-n-butylphthalate	<0.002	< 0.0022	N/A
Di-n-octylphthalate	<0.002	< 0.0022	N/A
Endrin	<0.00001	< 0.000011	0.002
EPTC	<0.0001	< 0.00011	N/A
Fluoranthene	<0.0001	< 0.00011	N/A
Fluorene	<0.0001	< 0.00011	N/A
gamma-BHC (Lindane)	<0.00002	< 0.000022	0.0002
gamma-Chlordane	<0.0001	< 0.00011	0.100
Heptachlor	<0.00001	< 0.000011	0.0004
Heptachlor Epoxide	<0.00001	< 0.00011	0.0002
Hexachlorobenzene	<0.0001	< 0.00011	0.001
Hexachlorocyclopentadiene	<0.0001	< 0.00011	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	< 0.00011	0.0004
Malathion	<0.0001	< 0.00011	N/A

Table 9J: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	< 0.00011	0.04
Metolachlor	<0.0001	< 0.00011	N/A
Metribuzin	<0.0001	< 0.00011	N/A
Molinate	<0.0001	< 0.00011	N/A
Naphthalene	<0.0001	< 0.00011	N/A
Parathion	<0.0005	< 0.00054	N/A
Phenanthrene	<0.0001	< 0.00011	N/A
Prometryn	<0.0001	< 0.00011	N/A
Propachlor	<0.0001	< 0.00011	N/A
Pyrene	<0.0001	< 0.00011	0.0002
Simazine	<0.00007	< 0.000076	0.004
Terbacil	<0.0001	< 0.00011	N/A
Thiobencarb	<0.0001	< 0.00011	N/A
trans-Nonachlor	<0.0001	< 0.00011	0.002
Trifluralin	<0.0001	< 0.00011	N/A

Table 10J: Soil Sampling Results

Analyte	NW corner (mg/kg-dry)	SW Corner (mg/kg-dry)	SE Corner (mg/kg-dry)
Methyl Parathion	Not Detected	No data. Sample broke during shipment.	Not Detected
Phorate	Not Detected		Not Detected
Parathion	Not Detected		Not Detected
Methamidophos	Not Detected		Not Detected
Malathion	Not Detected		Not Detected
Ethoprop	Not Detected		Not Detected
Dicrotophos	Not Detected		Not Detected
Diazinon	Not Detected		Not Detected
Chlorpyrifos	Not Detected		Not Detected
Terbufos	Not Detected		Not Detected

Table 10J: Soil Sampling Results Cont.

Analyte	NE Corner (mg/kg-dry)	NW corner inside over capsule (mg/kg-dry)	NW corner inside near air vent intake (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	No data. Sample broke during shipment.
Phorate	Not Detected	Not Detected	
Parathion	Not Detected	Not Detected	
Methamidophos	Not Detected	Not Detected	
Malathion	Not Detected	Not Detected	
Ethoprop	Not Detected	Not Detected	
Dicrotophos	Not Detected	Not Detected	
Diazinon	Not Detected	Not Detected	
Chlorpyrifos	Not Detected	Not Detected	
Terbufos	Not Detected	Not Detected	

Table 11J: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	550 ppm	780 ppm	<1000 ppm
Relative Humidity	46.3%	47%	30% - 60%
Temperature	69.9 °F	72.2 °F	72°F - 80°F
Carbon Monoxide	0 ppm	3.1 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12J: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.71	0.52	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.68	0.61	> 0 mg/L; < 4 mg/L

Appendix 11: MAF KILO (K-01) Results, Sampled on 27 June 2023

Table 1K: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Power Supply Group QA-0625 - Top	Total PCBs	Not Detected	10
Power Supply Group QA-0625 - Top	Total PCBs	Not Detected	10
Power Supply Group QA-0625 - Top	Total PCBs	Not Detected	10
Digital Data Group QA-354 - Top	Total PCBs	Not Detected	10
Digital Data Group QA-354 - Bottom	Total PCBs	Not Detected	10
Fridge Handle	Total PCBs	Not Detected	10
Left Console Keyboard	Total PCBs	Not Detected	10
Left Console Screen (SN: C109589)	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
Right Console Screen (SN: C109698)	Total PCBs	Not Detected	10
Wing 1 LCDD Panel	Total PCBs	Not Detected	10
Oxygen Regenerator	Total PCBs	Not Detected	10
SAX Box (At Entrance of LCC)	Total PCBs	Not Detected	10
Latrine Handle	Total PCBs	Not Detected	10
Electromagnetic Filter	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
SCC Comm Room Desk	Total PCBs	Not Detected	10
Handle at SCC and Elevator	Total PCBs	Not Detected	10
Common Area Phone	Total PCBs	Not Detected	10
Lactation Room	Total PCBs	Not Detected	10

Table 2K: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3K: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4K: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	17	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4K: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	14
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5K: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6K: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.2	<4.3	30

Table 7K: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8K: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9K: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.00011	N/A
2-Methylnapthalene	<0.0001	<0.00011	N/A
4,4'-DDD	<0.0001	<0.00011	N/A
4,4'-DDE	<0.0001	<0.00011	N/A
4,4'-DDT	<0.0001	<0.00011	N/A
Acenaphthene	<0.0001	<0.00011	N/A
Acenaphthylene	<0.0001	<0.00011	N/A
Alachlor	<0.0001	<0.00011	0.002
Aldrin	<0.0001	<0.00011	0.00001
alpha-Chlordane	<0.0001	<0.00011	N/A

Table 9K: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.00011	N/A
Atrazine	<0.0001	<0.00011	0.003
Benzo[a]anthracene	<0.0001	<0.00011	0.0001
Benzo[a]pyrene	<0.000021	<0.000022	0.0002
Benzo[b]fluoranthene	<0.0001	<0.00011	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.00011	N/A
Benzo[k]fluoranthene	<0.0001	<0.00011	0.0002
Bromacil	<0.0001	<0.00011	N/A
Butachlor	<0.0001	<0.00011	N/A
Butylbenzylphthalate	<0.001	<0.0011	N/A
Chlorothalonil	<0.0001	<0.00011	N/A
Chrysene	<0.0001	<0.00011	0.0002
Cyanazine	<0.0001	<0.00011	N/A
Deisopropylatrazine	<0.001	<0.0011	N/A
Desethylatrazine	<0.001	<0.0011	N/A
Di(2-ethylhexyl)phthalate	<0.00063	<0.00065	0.006
Di(2-ethylhexyl)adipate	<0.00063	<0.00065	0.40
Diazinon	<0.0001	<0.00011	N/A
Dibenz[a,h]anthracene	<0.0001	<0.00011	0.0003
Dieldrin	<0.0001	<0.00011	N/A
Diethylphthalate	<0.001	<0.0011	N/A
Dimethoate	<0.00052	<0.00054	N/A
Dimethylphthalate	<0.001	<0.0011	N/A
Di-n-butylphthalate	<0.0021	<0.0022	N/A
Di-n-octylphthalate	<0.0021	<0.0022	N/A
Endrin	<0.00001	<0.000011	0.002
EPTC	<0.0001	<0.00011	N/A
Fluoranthene	<0.0001	<0.00011	N/A
Fluorene	<0.0001	<0.00011	N/A
gamma-BHC (Lindane)	<0.000021	<0.000022	0.0002
gamma-Chlordane	<0.0001	<0.00011	0.100
Heptachlor	<0.00001	<0.000011	0.0004
Heptachlor Epoxide	<0.00001	<0.000011	0.0002
Hexachlorobenzene	<0.0001	<0.00011	0.001
Hexachlorocyclopentadiene	<0.0001	<0.00011	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.00011	0.0004
Malathion	<0.0001	<0.00011	N/A

Table 9K: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.00011	0.04
Metolachlor	<0.0001	<0.00011	N/A
Metribuzin	<0.0001	<0.00011	N/A
Molinate	<0.0001	<0.00011	N/A
Naphthalene	<0.0001	<0.00011	N/A
Parathion	<0.00052	<0.00054	N/A
Phenanthrene	<0.0001	<0.00011	N/A
Prometryn	<0.0001	<0.00011	N/A
Propachlor	<0.0001	<0.00011	N/A
Pyrene	<0.0001	<0.00011	0.0002
Simazine	<0.000073	<0.000075	0.004
Terbacil	<0.0001	<0.00011	N/A
Thiobencarb	<0.0001	<0.00011	N/A
trans-Nonachlor	<0.0001	<0.00011	0.002
Trifluralin	<0.0001	<0.00011	N/A

Table 10K: Soil Sampling Results

Analyte	N side of MAF inside fence near air intake vent (mg/kg-dry)	SE side of MAF inside gate near basketball hoop (mg/kg-dry)	10 ft from NE corner of fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10K: Soil Sampling Results Cont.

Analyte	10 ft from NW corner of fence (mg/kg-dry)	20 ft from SW corner of fence (mg/kg-dry)	3 ft from SE corner of fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11K: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	700 ppm	800 ppm	<1000 ppm
Relative Humidity	51.6%	51.7%	30% - 60%
Temperature	72.8 °F	73.4 °F	72°F - 80°F
Carbon Monoxide	0.2 ppm	0.8 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12K: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.8	1.47	> 0 mg/L; < 4 mg/L
Total Available Chlorine	>2	>2	> 0 mg/L; < 4 mg/L

Appendix 12: MAF LIMA (L-01) Results, Sampled on 27 June 2023

Table 1L: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Receiver Digital Data - Surface (SN: 0002011)	Total PCBs	1.04	10
	Aroclor 1254	1.04	10
Receiver Digital Data - Underside (SN: 0002011)	Total PCBs	Not Detected	10
Battery Access Charger - Surface	Total PCBs	Not Detected	10
Battery Access Charger - Groundlevel	Total PCBs	1.06	10
	Aroclor 1254	1.06	10
Left Keyboard - Above T1/T2/T3 (SN: C110191)	Total PCBs	Not Detected	10
Left Console Screen	Total PCBs	Not Detected	10
Right Keyboard Above T1/T2/T3 (SN: C109706)	Total PCBs	2.01	10
	Aroclor 1254	2.01	10
Right Visual Display Console Screen	Total PCBs	Not Detected	10
Hard UTE Summary Fault Unit - Underside	Total PCBs	Not Detected	10
Power Box in Entry Way Ceiling to Capsule	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Surface (SN: 12-226294/4-015)	Total PCBs	Not Detected	10
Wing 1 LCDB Panel - Underside (SN: 12-226294/4-015)	Total PCBs	1.79	10
	Aroclor	1.79	10
Elevator Buttons	Total PCBs	Not Detected	10
Door Handle Inside Elevator Entry Room	Total PCBs	Not Detected	10
Phone Handle in Common Room	Total PCBs	Not Detected	10
Lactation Room Desk	Total PCBs	Not Detected	10
SF Comm Room Desk	Total PCBs	Not Detected	10
Common Room Dining Table	Total PCBs	Not Detected	10
Metal Box CDF-1002 Outside Elevator	Total PCBs	Not Detected	10
Floor Below CDF-1009	Total PCBs	Not Detected	10

Table 2L: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3L: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4L: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	15
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	180
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4L: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	14
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5L: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6L: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.0	<4.0	30

Table 7L: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8L: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9L: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.0001	N/A
2-Methylnapthalene	<0.0001	<0.0001	N/A
4,4'-DDD	<0.0001	<0.0001	N/A
4,4'-DDE	<0.0001	<0.0001	N/A
4,4'-DDT	<0.0001	<0.0001	N/A
Acenaphthene	<0.0001	<0.0001	N/A
Acenaphthylene	<0.0001	<0.0001	N/A
Alachlor	<0.0001	<0.0001	0.002
Aldrin	<0.0001	<0.0001	0.00001
alpha-Chlordane	<0.0001	<0.0001	N/A

Table 9L: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.0001	N/A
Atrazine	<0.0001	<0.0001	0.003
Benzo[a]anthracene	<0.0001	<0.0001	0.0001
Benzo[a]pyrene	<0.00002	<0.00002	0.0002
Benzo[b]fluoranthene	<0.0001	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.0001	N/A
Benzo[k]fluoranthene	<0.0001	<0.0001	0.0002
Bromacil	<0.0001	<0.0001	N/A
Butachlor	<0.0001	<0.0001	N/A
Butylbenzylphthalate	<0.001	<0.001	N/A
Chlorothalonil	<0.0001	<0.0001	N/A
Chrysene	<0.0001	<0.0001	0.0002
Cyanazine	<0.0001	<0.0001	N/A
Deisopropylatrazine	<0.001	<0.001	N/A
Desethylatrazine	<0.001	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.0006	<0.0006	0.006
Di(2-ethylhexyl)adipate	<0.0006	<0.0006	0.40
Diazinon	<0.0001	<0.0001	N/A
Dibenz[a,h]anthracene	<0.0001	<0.0001	0.0003
Dieldrin	<0.0001	<0.0001	N/A
Diethylphthalate	<0.001	<0.001	N/A
Dimethoate	<0.0005	<0.0005	N/A
Dimethylphthalate	<0.001	<0.001	N/A
Di-n-butylphthalate	<0.002	<0.002	N/A
Di-n-octylphthalate	<0.002	<0.002	N/A
Endrin	<0.00001	<0.00001	0.002
EPTC	<0.0001	<0.0001	N/A
Fluoranthene	<0.0001	<0.0001	N/A
Fluorene	<0.0001	<0.0001	N/A
gamma-BHC (Lindane)	<0.00002	<0.00002	0.0002
gamma-Chlordane	<0.0001	<0.0001	0.100
Heptachlor	<0.00001	<0.00001	0.0004
Heptachlor Epoxide	<0.00001	<0.00001	0.0002
Hexachlorobenzene	<0.0001	<0.0001	0.001
Hexachlorocyclopentadiene	<0.0001	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.0001	0.0004
Malathion	<0.0001	<0.0001	N/A

Table 9L: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.0001	0.04
Metolachlor	<0.0001	<0.0001	N/A
Metribuzin	<0.0001	<0.0001	N/A
Molinate	<0.0001	<0.0001	N/A
Naphthalene	<0.0001	<0.0001	N/A
Parathion	<0.0005	<0.0005	N/A
Phenanthrene	<0.0001	<0.0001	N/A
Prometryn	<0.0001	<0.0001	N/A
Propachlor	<0.0001	<0.0001	N/A
Pyrene	<0.0001	<0.0001	0.0002
Simazine	<0.000071	<0.00007	0.004
Terbacil	<0.0001	<0.0001	N/A
Thiobencarb	<0.0001	<0.0001	N/A
trans-Nonachlor	<0.0001	<0.0001	0.002
Trifluralin	<0.0001	<0.0001	N/A

Table 10L: Soil Sampling Results

Analyte	Outside of air intake vent, back side of MAF (mg/kg-dry)	SW corner outside fence (mg/kg-dry)	S corner outside fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10L: Soil Sampling Results Cont.

Analyte	SE corner outside fence (mg/kg-dry)	N corner outside fence (mg/kg-dry)	SW corner inside fence above capsule (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11L: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	537 ppm	525 ppm	<1000 ppm
Relative Humidity	41.2%	41.5%	30% - 60%
Temperature	71°F	69°F	72°F - 80°F
Carbon Monoxide	1.7 ppm	1.8 ppm	25 ppm (8-hr TWA)
Ozone	No data	No Data	0.1 ppm (8-hr TWA)

Table 12L: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0	0	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0	0	> 0 mg/L; < 4 mg/L

Appendix 13: MAF MIKE (M-01) Results, Sampled on 26 June 2023

Table 1M: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
AC Power Unit Des. 364 - Top	Total PCBs	Not Detected	10
AC Power Unit Des. 364 - Bottom	Total PCBs	1.24	10
	Aroclor 1254	1.24	10
DC Power	Total PCBs	Not Detected	10
Battery Charger Access	Total PCBs	Not Detected	10
Transmitter Digital Data (SN:0002005)	Total PCBs	Not Detected	10
Receiver Digital Data (SN:000126)	Total PCBs	Not Detected	10
Left Console Right Screen	Total PCBs	Not Detected	10
Left Console Keyboard (SN: C110163)	Total PCBs	Not Detected	10
Right Console Right Screen	Total PCBs	Not Detected	10
Right Console Keyboard (SN: C109542)	Total PCBs	1.34	10
	Aroclor 1254	1.34	10
Wing 1 LCDB Panel	Total PCBs	Not Detected	10
Doorway Junction Box (Ceiling)	Total PCBs	Not Detected	10
CDF-1002 (Wall Below)	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
Door from Elevator -> SF Comm Room	Total PCBs	Not Detected	10
SF Comm Desk Near Phone and Mouse	Total PCBs	Not Detected	10
Door Handle from SF Comm -> Common Area	Total PCBs	Not Detected	10
Lactation Room Door Handle	Total PCBs	Not Detected	10
MPP, ASU (Handle) (SN: 94756)	Total PCBs	Not Detected	10
Top Left Box - Bottom Where Door Meets Unit - Unit Ref Des. 321	Total PCBs	Not Detected	10

Table 2M: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0021	<0.0021
Aroclor 1221	<0.0021	<0.0021
Aroclor 1232	<0.0021	<0.0021
Aroclor 1242	<0.0021	<0.0021
Aroclor 1248	<0.0021	<0.0021
Aroclor 1254	<0.0021	<0.0021
Aroclor 1260	<0.0021	<0.0021

Table 3M: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0021	<0.0021	N/A	N/A
Diazinon	<0.0021	<0.0021	N/A	N/A
Dicrotophos	<0.0021	<0.0021	N/A	N/A
Ethoprophos (Mocap)	<0.0021	<0.0021	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0042	<0.0042	N/A	N/A
Methyl Parathion	<0.0021	<0.0021	N/A	N/A
Parathion (Parathion Ethyl)	<0.0021	<0.0021	N/A	N/A
Phorate	<0.0021	<0.0021	N/A	N/A
Terbufos	<0.0021	<0.0021	N/A	N/A

Table 4M: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4M: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5M: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6M: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.1	<4.0	30

Table 7M: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8M: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9M: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.0001	<0.0001	N/A
2-Methylnapthalene	<0.0001	<0.0001	N/A
4,4'-DDD	<0.0001	<0.0001	N/A
4,4'-DDE	<0.0001	<0.0001	N/A
4,4'-DDT	<0.0001	<0.0001	N/A
Acenaphthene	<0.0001	<0.0001	N/A
Acenaphthylene	<0.0001	<0.0001	N/A
Alachlor	<0.0001	<0.0001	0.002
Aldrin	<0.0001	<0.0001	0.00001
alpha-Chlordane	<0.0001	<0.0001	N/A

Table 9M: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.0001	<0.0001	N/A
Atrazine	<0.0001	<0.0001	0.003
Benzo[a]anthracene	<0.0001	<0.0001	0.0001
Benzo[a]pyrene	<0.000021	<0.000021	0.0002
Benzo[b]fluoranthene	<0.0001	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.0001	<0.0001	N/A
Benzo[k]fluoranthene	<0.0001	<0.0001	0.0002
Bromacil	<0.0001	<0.0001	N/A
Butachlor	<0.0001	<0.0001	N/A
Butylbenzylphthalate	<0.001	<0.001	N/A
Chlorothalonil	<0.0001	<0.0001	N/A
Chrysene	<0.0001	<0.0001	0.0002
Cyanazine	<0.0001	<0.0001	N/A
Deisopropylatrazine	<0.001	<0.001	N/A
Desethylatrazine	<0.001	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.00062	<0.00062	0.006
Di(2-ethylhexyl)adipate	<0.00062	<0.00062	0.40
Diazinon	<0.0001	<0.0001	N/A
Dibenz[a,h]anthracene	<0.0001	<0.0001	0.0003
Dieldrin	<0.0001	<0.0001	N/A
Diethylphthalate	<0.001	<0.001	N/A
Dimethoate	<0.00052	<0.00052	N/A
Dimethylphthalate	<0.001	<0.001	N/A
Di-n-butylphthalate	<0.0021	<0.0021	N/A
Di-n-octylphthalate	<0.0021	<0.0021	N/A
Endrin	<0.00001	<0.00001	0.002
EPTC	<0.0001	<0.0001	N/A
Fluoranthene	<0.0001	<0.0001	N/A
Fluorene	<0.0001	<0.0001	N/A
gamma-BHC (Lindane)	<0.000021	<0.000021	0.0002
gamma-Chlordane	<0.0001	<0.0001	0.100
Heptachlor	<0.00001	<0.00001	0.0004
Heptachlor Epoxide	<0.00001	<0.00001	0.0002
Hexachlorobenzene	<0.0001	<0.0001	0.001
Hexachlorocyclopentadiene	<0.0001	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.0001	<0.0001	0.0004
Malathion	<0.0001	<0.0001	N/A

Table 9M: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.0001	<0.0001	0.04
Metolachlor	<0.0001	<0.0001	N/A
Metribuzin	<0.0001	<0.0001	N/A
Molinate	<0.0001	<0.0001	N/A
Naphthalene	<0.0001	<0.0001	N/A
Parathion	<0.00052	<0.00052	N/A
Phenanthrene	<0.0001	<0.0001	N/A
Prometryn	<0.0001	<0.0001	N/A
Propachlor	<0.0001	<0.0001	N/A
Pyrene	<0.0001	<0.0001	0.0002
Simazine	<0.000072	<0.000073	0.004
Terbacil	<0.0001	<0.0001	N/A
Thiobencarb	<0.0001	<0.0001	N/A
trans-Nonachlor	<0.0001	<0.0001	0.002
Trifluralin	<0.0001	<0.0001	N/A

Table 10M: Soil Sampling Results

Analyte	SW outside corner of MAF (mg/kg-dry)	NW outside corner of MAF (mg/kg-dry)	NE outside corner of MAF (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10M: Soil Sampling Results Cont.

Analyte	SE outside corner of MAF (mg/kg-dry)	SE inside corner over capsule (mg/kg-dry)	SE inside corner near air intake vent (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11M: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	773 ppm	580 ppm	<1000 ppm
Relative Humidity	48.2%	46.2%	30% - 60%
Temperature	69.3 °F	69.6 °F	72°F - 80°F
Carbon Monoxide	0.1 ppm	1.9 ppm	25 ppm (8-hr TWA)
Ozone	No Data	No Data	0.1 ppm (8-hr TWA)

Table 12M: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	>8.5	>8.5	6.5 - 8.5
Free Available Chlorine	0.69	0.24	> 0 mg/L; < 4 mg/L
Total Available Chlorine	1	0.55	> 0 mg/L; < 4 mg/L

Appendix 14: MAF NOVEMBER (N-01) Results, Sampled on 24 June 2023

Table 1N: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Bottom Transmitter - Groundlevel (SN: 0000110)	Total PCBs	Not Detected	10
Bottom Transmitter - Top (SN: 0000110)	Total PCBs	Not Detected	10
DC Power Supply - Bottom (SN: 0000018)	Total PCBs	Not Detected	10
DC Power Supply - Top (SN: 0000018)	Total PCBs	Not Detected	10
Right Console Keyboard (SN: C109619)	Total PCBs	Not Detected	10
Below Right Console Keyboard (SN: C109619)	Total PCBs	Not Detected	10
Left Console Keyboard (SN: C109533)	Total PCBs	Not Detected	10
Below Left Console Keyboard (SN: C109533)	Total PCBs	Not Detected	10
SACCS Rack - Underside	Total PCBs	Not Detected	10
SACCS Rack - Surface	Total PCBs	Not Detected	10
Control Box LCB Panel - Top (SN:12-26249LCDB)	Total PCBs	Not Detected	10
Control Box LCB Panel - Bottom (SN:12-26249LCDB)	Total PCBs	Not Detected	10
Lactation Room	Total PCBs	Not Detected	10
Common Area Table	Total PCBs	Not Detected	10
Dining Table, Common Area	Total PCBs	Not Detected	10
Phone Area, Common Area	Total PCBs	Not Detected	10
Exhaust Vent in DEU Room 104 (From LCC)	Total PCBs	Not Detected	10
SCC Desk	Total PCBs	Not Detected	10
Elevator Panel Buttons	Total PCBs	Not Detected	10
Elevator Handle	Total PCBs	Not Detected	10

Table 2N: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0024	<0.0027
Aroclor 1221	<0.0024	<0.0027
Aroclor 1232	<0.0024	<0.0027
Aroclor 1242	<0.0024	<0.0027
Aroclor 1248	<0.0024	<0.0027
Aroclor 1254	<0.0024	<0.0027
Aroclor 1260	<0.0024	<0.0027

Table 3N: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0027	<0.0024	N/A	N/A
Diazinon	<0.0027	<0.0024	N/A	N/A
Dicrotophos	<0.0027	<0.0024	N/A	N/A
Ethoprophos (Mocap)	<0.0027	<0.0024	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0053	<0.0048	N/A	N/A
Methyl Parathion	<0.0027	<0.0024	N/A	N/A
Parathion (Parathion Ethyl)	<0.0027	<0.0024	N/A	N/A
Phorate	<0.0027	<0.0024	N/A	N/A
Terbufos	<0.0027	<0.0024	N/A	N/A

Table 4N: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	13	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	1600	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4N: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5N: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6N: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<4.0	<4.0	30

Table 7N: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8N: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9N: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.000097	<0.000098	N/A
2-Methylnapthalene	<0.000097	<0.000098	N/A
4,4'-DDD	<0.000097	<0.000098	N/A
4,4'-DDE	<0.000097	<0.000098	N/A
4,4'-DDT	<0.000097	<0.000098	N/A
Acenaphthene	<0.000097	<0.000098	N/A
Acenaphthylene	<0.000097	<0.000098	N/A
Alachlor	<0.000097	<0.000098	0.002
Aldrin	<0.000097	<0.000098	0.00001
alpha-Chlordane	<0.000097	<0.000098	N/A

Table 9N: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.000097	<0.000098	N/A
Atrazine	<0.000097	<0.000098	0.003
Benzo[a]anthracene	<0.000097	<0.000098	0.0001
Benzo[a]pyrene	<0.000019	<0.00002	0.0002
Benzo[b]fluoranthene	<0.000097	<0.000098	0.0002
Benzo[g,h,i]perylene	<0.000097	<0.000098	N/A
Benzo[k]fluoranthene	<0.000097	<0.000098	0.0002
Bromacil	<0.000097	<0.000098	N/A
Butachlor	<0.000097	<0.000098	N/A
Butylbenzylphthalate	<0.00097	<0.00098	N/A
Chlorothalonil	<0.000097	<0.000098	N/A
Chrysene	<0.000097	<0.000098	0.0002
Cyanazine	<0.000097	<0.000098	N/A
Deisopropylatrazine	<0.00097	<0.00098	N/A
Desethylatrazine	<0.00097	<0.00098	N/A
Di(2-ethylhexyl)phthalate	<0.00058	<0.00059	0.006
Di(2-ethylhexyl)adipate	<0.00058	<0.00059	0.40
Diazinon	<0.000097	<0.000098	N/A
Dibenz[a,h]anthracene	<0.000097	<0.000098	0.0003
Dieldrin	<0.000097	<0.000098	N/A
Diethylphthalate	<0.00097	<0.00098	N/A
Dimethoate	<0.00048	<0.00049	N/A
Dimethylphthalate	<0.00097	<0.00098	N/A
Di-n-butylphthalate	<0.0019	<0.002	N/A
Di-n-octylphthalate	<0.0019	<0.002	N/A
Endrin	<0.0000097	<0.0000098	0.002
EPTC	<0.000097	<0.000098	N/A
Fluoranthene	<0.000097	<0.000098	N/A
Fluorene	<0.000097	<0.000098	N/A
gamma-BHC (Lindane)	<0.000019	<0.00002	0.0002
gamma-Chlordane	<0.000097	<0.000098	0.100
Heptachlor	<0.0000097	<0.0000098	0.0004
Heptachlor Epoxide	<0.0000097	<0.0000098	0.0002
Hexachlorobenzene	<0.000097	<0.000098	0.001
Hexachlorocyclopentadiene	<0.000097	<0.000098	0.05
Indeno[1,2,3-cd]pyrene	<0.000097	<0.000098	0.0004
Malathion	<0.000097	<0.000098	N/A

Table 9N: Water Sampling Results –Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.000097	<0.000098	0.04
Metolachlor	<0.000097	<0.000098	N/A
Metribuzin	<0.000097	<0.000098	N/A
Molinate	<0.000097	<0.000098	N/A
Naphthalene	<0.000097	<0.000098	N/A
Parathion	<0.00048	<0.00049	N/A
Phenanthrene	<0.000097	<0.000098	N/A
Prometryn	<0.000097	<0.000098	N/A
Propachlor	<0.000097	<0.000098	N/A
Pyrene	<0.000097	<0.000098	0.0002
Simazine	<0.000068	<0.000069	0.004
Terbacil	<0.000097	<0.000098	N/A
Thiobencarb	<0.000097	<0.000098	N/A
trans-Nonachlor	<0.000097	<0.000098	0.002
Trifluralin	<0.000097	<0.000098	N/A

Table 10N: Soil Sampling Results

Analyte	4 ft from bldg outside vent intake (mg/kg-dry)	Center of MAF (mg/kg-dry)	SW of MAF, outside fenceline 4 ft backside of MAF (mg/kg-dry)
Methyl Parathion	No data. Sample broke during shipment.	Not Detected	Not Detected
Phorate		Not Detected	Not Detected
Parathion		Not Detected	Not Detected
Methamidophos		Not Detected	Not Detected
Malathion		Not Detected	Not Detected
Ethoprop		Not Detected	Not Detected
Dicrotophos		Not Detected	Not Detected
Diazinon		Not Detected	Not Detected
Chlorpyrifos		Not Detected	Not Detected
Terbufos		Not Detected	Not Detected

Table 10N: Soil Sampling Results Cont.

Analyte	Air handler corner, 4 ft from fence (mg/kg-dry)	SE of MAF outside fenceline, 5 ft (by antenna w/wind mill) (mg/kg-dry)	NE corner, 4 ft from outside fenceline (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 11N: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	640 ppm	620 ppm	<1000 ppm
Relative Humidity	55.7%	38.9%	30% - 60%
Temperature	70°F	69°F	72°F - 80°F
Carbon Monoxide	0.2 ppm	2.1 ppm	25 ppm (8-hr TWA)
Ozone	0 ppm	0 ppm	0.1 ppm (8-hr TWA)

Table 12N: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	8.4	>8.5	6.5 - 8.5
Free Available Chlorine	1.36	1.44	> 0 mg/L; < 4 mg/L
Total Available Chlorine	1.5	1.52	> 0 mg/L; < 4 mg/L

Appendix 15: MAF OSCAR (O-01) Results, Sampled on 23 June 2023

Table 1O: PCB Swipe Sampling

Location	Analyte	Result (µg/100 cm^2)	Standard (40 CFR Part 761) (µg/100 cm^2)
Power Supply Group - Top	Total PCBs	Not Detected	10
Power Supply Group - Middle	Total PCBs	Not Detected	10
Distribution Box - Top	Total PCBs	Not Detected	10
Distribution Box - Bottom	Total PCBs	Not Detected	10
Battery Charge Capacitor	Total PCBs	Not Detected	10
Digital Data Group - Bottom	Total PCBs	Not Detected	10
Digital Data Group - Top	Total PCBs	Not Detected	10
PCDU	Total PCBs	Not Detected	10
Voice Control Panel (Right)	Total PCBs	Not Detected	10
Voice Control Panel (Left)	Total PCBs	Not Detected	10
Right Console Keyboard	Total PCBs	Not Detected	10
SACS Power Supply - Bottom	Total PCBs	Not Detected	10
Wing 1 LCDB Panel	Total PCBs	Not Detected	10
DC Power Switch - Floor	Total PCBs	1.9	10
	Aroclor 1254	1.9	
CDF-1002 Entry Ceiling - Floor swipe to check leaks	Total PCBs	Not Detected	10
CDF-1002 Entry Ceiling - Bottom of Unit	Total PCBs	Not Detected	10
Upstairs Keyboard	Total PCBs	Not Detected	10
Elevator Buttons	Total PCBs	Not Detected	10
Elevator Handle/Door	Total PCBs	Not Detected	10
MPP Handle	Total PCBs	Not Detected	10

Table 2O: Air Sampling Results – PCBs

Analyte	LCC Result (mg/m^3)	Topside Result (mg/m^3)
Aroclor 1016	<0.0026	<0.0023
Aroclor 1221	<0.0026	<0.0023
Aroclor 1232	<0.0026	<0.0023
Aroclor 1242	<0.0026	<0.0023
Aroclor 1248	<0.0026	<0.0023
Aroclor 1254	<0.0026	<0.0023
Aroclor 1260	<0.0026	<0.0023

Table 3O: Air Sampling Results – Organophosphates

Analyte	LCC (8hr) Result (mg/m^3)	Topside (8hr) Result (mg/m^3)	LCC (2hr) Result (mg/m^3)	Topside (2hr) Result (mg/m^3)
Chloropyrifos (Dursban)	<0.0026	<0.0023	N/A	N/A
Diazinon	<0.0026	<0.0023	N/A	N/A
Dicrotophos	<0.0026	<0.0023	N/A	N/A
Ethoprophos (Mocap)	<0.0026	<0.0023	N/A	N/A
Malathion	N/A	N/A	<0.0083	<0.0083
Methamidophos	<0.0052	<0.0083	N/A	N/A
Methyl Parathion	<0.0026	<0.0023	N/A	N/A
Parathion (Parathion Ethyl)	<0.0026	<0.0023	N/A	N/A
Phorate	<0.0026	<0.0023	N/A	N/A
Terbufos	<0.0026	<0.0023	N/A	N/A

Table 4O: Air Sampling Results – VOCs

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
1,1,1,2-Tetrachloroethane	<10	<10
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethylene	<10	<10
1,1-Dichloropropylene	<10	<10
1,2,3-Trichlorobenzene	<10	<10
1,2,3-Trichloropropane	<10	<10
1,2,4-Trichlorobenzene	<10	<10
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromo-3-chloropropane (DBCP)	<10	<10
Ethylene Dibromide	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,3-Dichloropropane	<10	<10
1,4-Dichlorobenzene	<10	<10
2-Chlorotoluene	<10	<10
4-chlorotoluene	<10	<10
Benzene	<10	<10
Bromobenzene	<10	<10
Bromochloromethane	<10	<10
Bromodichloromethane	<10	<10
Bromoform	<10	<10
Carbon Tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroform	<10	<10
cis-1,2-Dichloroethylene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Dibromochloromethane	<10	<10
Ethylbenzene	<10	<10
Hexachlorobutadiene	<10	<10

Table 4O: Air Sampling Results – VOCs Cont.

Analyte	LCC Result (µg/m^3)	Topside Result (µg/m^3)
Isopropylbenzene	<10	<10
Methylene Chloride(Dichloromethane)	<10	<10
p+m-Xylene	<10	<10
Naphthalene	<10	<10
n-Butylbenzene	<10	<10
n-Propylbenzene	<10	<10
o-Xylene	<10	<10
p-isopropyltoluene	<10	<10
sec-butylbenzene	<10	<10
Styrene	<10	<10
tert-butylbenzene	<10	<10
Tetrachloroethylene	<10	<10
Toluene	<10	<10
trans-1,2-Dichloroethylene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethylene	<10	<10

Table 5O: Water Sampling Results – Nitrate/Nitrite

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Nitrate/Nitrite (Total)	<0.10	<0.10	10

Table 6O: Water Sampling Results – Dioxins

Analyte	Topside Result (pg/L)	LCC Result (pg/L)	Maximum Containment Level (pg/L)
2-3-7-8-Tetrachlorodibenzo-p-dioxin	<3.9	<4.3	30

Table 7O: Water Sampling Results – Diquat/Paraquat

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Diquat	<0.0004	<0.0004	0.02
Paraquat	<0.0004	<0.0004	N/A

Table 8O: Water Sampling Results – PCBs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
PCB-1016	<0.00008	<0.00008	0.002
PCB-1221	<0.0001	<0.0001	0.002
PCB-1232	<0.0001	<0.0001	0.002
PCB-1242	<0.0001	<0.0001	0.002
PCB-1248	<0.0001	<0.0001	0.002
PCB-1254	<0.0001	<0.0001	0.002
PCB-1260	<0.0001	<0.0001	0.002
Total PCBs	<0.0001	<0.0001	0.002

Table 9O: Water Sampling Results – Pesticides/SVOCs

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
1-Methylnapthalene	<0.000096	<0.0001	N/A
2-Methylnapthalene	<0.000096	<0.0001	N/A
4,4'-DDD	<0.000096	<0.0001	N/A
4,4'-DDE	<0.000096	<0.0001	N/A
4,4'-DDT	<0.000096	<0.0001	N/A
Acenaphthene	<0.000096	<0.0001	N/A
Acenaphthylene	<0.000096	<0.0001	N/A
Alachlor	<0.000096	<0.0001	0.002
Aldrin	<0.000096	<0.0001	0.00001
alpha-Chlordane	<0.000096	<0.0001	N/A

Table 9O: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Anthracene	<0.000096	<0.0001	N/A
Atrazine	<0.000096	<0.0001	0.003
Benzo[a]anthracene	<0.000096	<0.0001	0.0001
Benzo[a]pyrene	<0.000096	<0.000021	0.0002
Benzo[b]fluoranthene	<0.000096	<0.0001	0.0002
Benzo[g,h,i]perylene	<0.000096	<0.0001	N/A
Benzo[k]fluoranthene	<0.000096	<0.0001	0.0002
Bromacil	<0.000096	<0.0001	N/A
Butachlor	<0.000096	<0.0001	N/A
Butylbenzylphthalate	<0.00096	<0.001	N/A
Chlorothalonil	<0.000096	<0.0001	N/A
Chrysene	<0.000096	<0.0001	0.0002
Cyanazine	<0.000096	<0.0001	N/A
Deisopropylatrazine	<0.00096	<0.001	N/A
Desethylatrazine	<0.00096	<0.001	N/A
Di(2-ethylhexyl)phthalate	<0.00058	<0.00062	0.006
Di(2-ethylhexyl)adipate	<0.00058	<0.00062	0.40
Diazinon	<0.000096	<0.0001	N/A
Dibenz[a,h]anthracene	<0.000096	<0.0001	0.0003
Dieldrin	<0.000096	<0.0001	N/A
Diethylphthalate	<0.00096	<0.001	N/A
Dimethoate	<0.00048	<0.00051	N/A
Dimethylphthalate	<0.00096	<0.001	N/A
Di-n-butylphthalate	<0.0019	<0.0021	N/A
Di-n-octylphthalate	<0.0019	<0.0021	N/A
Endrin	<0.0000096	<0.00001	0.002
EPTC	<0.000096	<0.0001	N/A
Fluoranthene	<0.000096	<0.0001	N/A
Fluorene	<0.000096	<0.0001	N/A
gamma-BHC (Lindane)	<0.000019	<0.000021	0.0002
gamma-Chlordane	<0.000096	<0.0001	0.100
Heptachlor	<0.0000096	<0.00001	0.0004
Heptachlor Epoxide	<0.0000096	<0.00001	0.0002
Hexachlorobenzene	<0.000096	<0.0001	0.001
Hexachlorocyclopentadiene	<0.000096	<0.0001	0.05
Indeno[1,2,3-cd]pyrene	<0.000096	<0.0001	0.0004
Malathion	<0.000096	<0.0001	N/A

Table 9O: Water Sampling Results – Pesticides/SVOCs Cont.

Analyte	Topside Result (mg/L)	LCC Result (mg/L)	Maximum Containment Level (mg/L)
Methoxychlor	<0.000096	<0.0001	0.04
Metolachlor	<0.000096	<0.0001	N/A
Metribuzin	<0.000096	<0.0001	N/A
Molinate	<0.000096	<0.0001	N/A
Naphthalene	<0.000096	<0.0001	N/A
Parathion	<0.00048	<0.00051	N/A
Phenanthrene	<0.000096	<0.0001	N/A
Prometryn	<0.000096	<0.0001	N/A
Propachlor	<0.000096	<0.0001	N/A
Pyrene	<0.000096	<0.0001	0.0002
Simazine	<0.000067	<0.000072	0.004
Terbacil	<0.000096	<0.0001	N/A
Thiobencarb	<0.000096	<0.0001	N/A
trans-Nonachlor	<0.000096	<0.0001	0.002
Trifluralin	<0.000096	<0.0001	N/A

Table 10O: Soil Sampling Results

Analyte	Outside air intake vent, N of bldg (mg/kg-dry)	NW corner above capsule (mg/kg-dry)	SW corner outside fence (mg/kg-dry)
Methyl Parathion	Not Detected	Not Detected	Not Detected
Phorate	Not Detected	Not Detected	Not Detected
Parathion	Not Detected	Not Detected	Not Detected
Methamidophos	Not Detected	Not Detected	Not Detected
Malathion	Not Detected	Not Detected	Not Detected
Ethoprop	Not Detected	Not Detected	Not Detected
Dicrotophos	Not Detected	Not Detected	Not Detected
Diazinon	Not Detected	Not Detected	Not Detected
Chlorpyrifos	Not Detected	Not Detected	Not Detected
Terbufos	Not Detected	Not Detected	Not Detected

Table 10O: Soil Sampling Results Cont.

Analyte	NE Corner outside fence (mg/kg-dry)	SE corner outside fence (mg/kg-dry)	NW corner outside fence (mg/kg-dry)
Methyl Parathion	Not Detected	No data. Sample broke during shipment.	Not Detected
Phorate	Not Detected		Not Detected
Parathion	Not Detected		Not Detected
Methamidophos	Not Detected		Not Detected
Malathion	Not Detected		Not Detected
Ethoprop	Not Detected		Not Detected
Dicrotophos	Not Detected		Not Detected
Diazinon	Not Detected		Not Detected
Chlorpyrifos	Not Detected		Not Detected
Terbufos	Not Detected		Not Detected

Table 11O: Air Direct Reading Values

Analyte	Topside Measured Value	LCC Measure Value	Recommended Range
Carbon Dioxide	680 ppm	477 ppm	<1000 ppm
Relative Humidity	43.7%	41.5%	30% - 60%
Temperature	69.4°F	65.2°F	72°F - 80°F
Carbon Monoxide	0.6 ppm	1.5 ppm	25 ppm (8-hr TWA)
Ozone	No Data	0 ppm	0.1 ppm (8-hr TWA)

Table 12O: Water Direct Reading Values

Analyte	Topside Measured Value	LCC Measured Value	Recommended Range
pH	7.9	7.8	6.5 - 8.5
Free Available Chlorine	0.12	0.02	> 0 mg/L; < 4 mg/L
Total Available Chlorine	0.06	0.11	> 0 mg/L; < 4 mg/L