STAND ALONE ELECTRICAL EQUIPMENT
PRL 227a (FORMERLY PRL 227 LOC3)
CONFIRMATORY SAMPLING REPORT ADDENDUM

KENNEDY SPACE CENTER, FLORIDA

Prepared for:

National Aeronautics and Space Administration
Kennedy Space Center, Florida

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Revision 0

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CERTIFICATION AND APPROVAL

UN-NUMBERED OPERATIONAL AREAS, PRL 227A
STAND ALONE ELECTRICAL EQUIPMENT
CONFIRMATORY SAMPLING REPORT

I hereby certify that in my professional judgment this document entitled: Un-Numbered Operational Areas, PRL 227a Stand Alone Electrical Equipment (SAEE), Confirmatory Sampling Report Addendum dated April 2023, generally satisfies the requirements set forth in Chapter 471, Florida Statues. I have completed and/or been in responsible charge of work completed by qualified professionals working directly under my supervision and the applicable portions of this document and associated work comply with Chapter 62-780, Florida Administrative Code (FAC) and Rule 62-780.400(1), FAC.

04-18-2023

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Date

This item has been electronically signed and sealed by Richard G. Smith using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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LIST OF ACRONYMS/ABBREVIATIONS

bls	below land surface
CS	confirmatory sampling
CSR	Confirmatory Sampling Report
CSRA	Confirmation sampling Report Addendum
CSWP	Confirmatory Sampling Work Plan
FDEP	Florida Department of Environmental Protection
ft	feet
GCTL	groundwater cleanup target level
HGL	HydroGeoLogic, Inc.
IMWP	Interim Measure Work Plan
KSC	Kennedy Space Center
KSCRT	Kennedy Space Center Remediation Team
LBS	Load Break Switches
LOC	location of concern
LUC	land use controls
mg/kg	milligrams per kilogram
NASA	National Aeronautics and Space Administration
NFA	no further action
PCB	Polychlorinated Biphenyls
ppm	parts per million
PRL	Potential Release Location
RCRA	Resource Conservation and Recovery Act
SA	SWMU Assessment
SAEE	Stand Alone Electrical Equipment
SCTL	soil cleanup target level
SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
TRPH	total recoverable petroleum hydrocarbon
µg/L	micrograms per liter

VOC	volatile organic compound
VPF	Vertical Processing Facility

EXECUTIVE SUMMARY

This Confirmatory Sampling (CS) Report (CSR) Addendum (CSRA) was prepared for the National Aeronautics and Space Administration (NASA), Kennedy Space Center (KSC), Florida in accordance with the CS Work Plan (CSWP) (NASA, 2015) and the Supplemental CSWP included in the 2019 CS Report (NASA, 2019).

A Solid Waste Management Unit (SWMU) Assessment (SA) was conducted in 2015 to identify potential environmental impacts related to current and historic operations at Stand Alone Electrical Equipment (SAEE) locations. Eighty-seven pieces of equipment were evaluated in the September 2015 PRL 227 SA and forty-nine Locations of Concern (LOC) were identified. LOC 3 was identified as one of the LOCs with potential environmental impacts at SAEE. The SA Report/Confirmation Sampling Work Plan (NASA, 2015) defined future CS at the LOC. The 2015 SA identified 49 LOCs associated with Potential Release Location (PRL) 227. CS was performed at 48 of the 49 LOCs in 2019 and the results are summarized in a CS Report (NASA, 2019).

This CSRA summarizes additional investigation activities performed at the SAEE, PRL 227a located at KSC. At the end of the initial CS, those locations where further sampling was required were given a distinct PRL number. LOC 3 was designated PRL 227a.

PURPOSE

The purpose of this CSRA is to present the findings of the CS activities completed at SAEE, PRL 227a, from June 2020 through December 2022. Sampling was conducted to delineate polychlorinated biphenyls (PCB) impacts at the site by screening results against their respective Florida Department of Environmental Protection (FDEP) cleanup target levels, the Toxic Substance Control Act (TSCA) of 1976 (40 CFR 761), and KSC background parking/traffic areas values. Kennedy Space Center Remediation Team (KSCRT) reached consensus for screening against these values on September 10, 2015. KSCRT reached consensus for the CS recommendation at the June 2019 Team meeting (Meeting Minute 1906-10, Decision 1906- D59). Copies of applicable Kennedy Space Center Remediation Team meeting minutes are provided in **Appendix A**.

Based on the results of the CSRA investigation, an Interim Measure is recommended to remove PCB-impacted soil at PRL 227a.

SITE DESCRIPTION

The KSC Power Distribution System was established in the 1960s with the construction of the first facilities at KSC. This system has been expanded and upgraded over time to support mission requirements. The electrical equipment included under this PRL are located on the transmission (high-voltage) system. Electrical equipment included under this PRL are known to have used oils that contain hydrocarbons and/or PCB as components. PCB-containing oil was phased out in the late 1970s to early 1980s at KSC, or the electrical units were replaced with equipment using mineral oil or SF6 gas. Based on interviews conducted during the SA, vacuum fault interrupters and load break switches manufactured or installed after the year 2000 contain SF6 gas.

Additionally, by 2000, all existing vacuum fault interrupters and load break switches were converted to SF6 gas.

PRL 227a is located on 10th Street, west of the former Vertical Processing Facility (M7-1469), SWMU 077. The Load Break Switches (LBS) were installed in 1986 and are suspected to have formerly contained PCB-containing oil. The LBS were replaced in 1993 with new LBS that do not contain PCBs. The LBS are located on a concrete pad surrounded by grass that is mowed and maintained. The area is not considered an ecological habitat.

SCOPE

A total of 330 soil samples were collected from 88 locations between June 2020 and December 2022 at depths ranging from 0-0.5 to 19-20 feet below land surface (bls). Samples were extracted for PCB analysis using the USEPA approved Soxhlet Extraction Method (3540C) and analyzed by SW846 Method 8082A. Additionally, one groundwater sample was collected in December 2022 from the shallow monitoring well (SAEE-MW0001, screened 5-15 feet bls) that is installed in the area with the greatest PCB soil concentration and analyzed for PCBs by SW846 Method 8082A and volatile organic compounds (VOCs) by Method SW846 8260D.

RESULTS

Eighty-nine of the 330 soil samples exceeded the residential Soil Cleanup Target Level (SCTL) for PCBs of 0.5 milligrams per kilogram (mg/kg), 25 soil samples exceeded the industrial SCTL of 2.6 mg/kg, 3 soil samples exceeded the leachability SCTL of 17 mg/kg, and 1 soil sample (SB0012 at the 1-2 feet bls interval) was above the level that requires coordination with the U.S. Environmental Protection Agency. No PCBs or VOCs were detected were detected in the groundwater sample collected from SAEE-MW0001.

RECOMMENDATIONS

Based upon the completed delineation of PCB impacted soil exceeding the SCTL, an interim measure is recommended to excavate the PCB-impacted soil. Total volume of the excavation is approximately 591.6 cubic yards with approximately 9.3 cubic yards of soil with PCB concentrations greater or equal to 50 ppm requiring disposal per TSCA requirements. Land Use Controls (LUC) will be required for soil beneath and adjacent to the Communications Terminal #11 building which soils cannot be excavated due to the building and multiple buried utilities adjacent to the building.

STAND ALONE ELECTRICAL EQUIPMENT
PRL 227A
CONFIRMATORY SAMPLING REPORT ADDENDUM
KENNEDY SPACE CENTER, FLORIDA

1.0 INTRODUCTION

HydroGeoLogic, Inc. (HGL) has prepared this Confirmatory Sampling Report Addendum (CSRA) for the National Aeronautics and Space Administration (NASA), Kennedy Space Center (KSC), Florida, under Contract Number 80KSC019D0012, Task Order 80KSC019F0118.

KSC's operating permit (0026028-010-HO) issued by the Florida Department of Environmental Protection (FDEP) under the Hazardous and Solid Waste Amendment portion of the Resource Conservation and Recovery Act (RCRA) requires KSC to investigate all known solid waste management units (SWMUs) and locations of concern at KSC. In support of this requirement, the Stand Alone Electrical Equipment (SAEE) is designated as Potential Release Location (PRL) 227a under the NASA RCRA permit.

Based on a PCB result that equaled or exceeded 50 mg/kg, NASA submitted a PCB Notification Letter to FDEP on February 3, 2021. The Notification Letter advised FDEP of the PCB contamination and that an Interim Measure Work Plan would be submitted when delineation was completed. A Coordinated Approval between FDEP and the U.S. Environmental Protection Agency (EPA) is being requested.

2.0 SITE DESCRIPTION, LOCATION, AND HISTORY

2.1 SITE LOCATION AND DESCRIPTION

KSC is centrally located on the east coast of Florida, to the north and west of Cape Canaveral (**Figure 1**). It is situated in Brevard and Volusia Counties between the Merritt Island Barge Canal to the south, the town of Oak Hill to the north, the Atlantic Ocean and Cape Canaveral Space Force Station to the east, and the Indian River to the west. A large portion of the area, between the Indian River and the Atlantic Ocean, is in the northern part of Brevard County on Merritt Island, with the extreme north boundary extending approximately 7 miles into Volusia County.

The KSC Power Distribution System was established in the 1960s with the construction of the first facilities at KSC. This system has been expanded and upgraded over time to support mission requirements. The electrical equipment included under this PRL are located on the transmission (high-voltage) system. Electrical equipment is included under this PRL are known to have used oils that contain hydrocarbons and/or polychlorinated biphenyls (PCB) as components. PCB-containing oil was phased out in the late 1970s to early 1980s at KSC, or the electrical units were replaced with types containing mineral oil or sodium hexafluoride (SF6) gas. Based on interviews conducted during the SWMU Assessment (SA), vacuum fault interrupters and load break switches

manufactured or installed after the year 2000 contain SF6 gas. Additionally, by 2000, all existing vacuum fault interrupters and load break switches were converted to SF6 gas.

PRL 227a Location of Concern (LOC) 3 is located on 10th Street, west of the former Vertical Processing Facility (M7-1469), SWMU 077. The Load Break Switches (LBS) were installed in 1986 and are suspected to have formally contained PCB-containing oil. The LBS were replaced in 1993 with new LBS that do not contain PCBs. The LBS are located on a concrete pad surrounded by grass that is mowed and maintained. A site layout map is provided in **Figure 2** and **Figure 3**. The area is not considered an ecological habitat.

Background

The electrical equipment at all of the SAEE locations includes or included electrical transformers (substations and universal substations), Load Break Switches (LBSs), Vacuum Fault Interrupters, and pole-mounted transformers. Eighty-seven pieces of electrical equipment were identified in the SAR, but only 63 pieces of electrical equipment warranted further investigation. The 63 pieces of equipment were further grouped by proximity into 49 LOCs in the SAR.

An SA was conducted in 2015 to identify potential environmental impacts related to current and historic operations at Stand Alone Electrical Equipment (SAEE) locations (NASA, 2015). The SA Report contained a Confirmatory Sampling Work Plan (CSWP) that defined future CS at the LOCs which included LOC 3. CS activities were performed at LOC 3 and summarized in a CS Report (NASA, 2019). Kennedy Space Center Remediation Team (KSCRT) reached consensus for SA Report/CSWP on September 10, 2015.

Based on the results of the CS, it was recommended that additional CS sampling be completed at LOC 3 to delineate soil exceeding residential direct exposure SCTLs and that LOCs 16 and 29 proceed to soil IMs to address residential Soil Cleanup Target Level (SCTL) exceedances. The Supplemental CS Work Plan for LOC 3 is provided in the 2019 CS Report located in **Appendix B**. The KSCRT reached consensus on these recommendations including the Supplemental CS sampling for LOC 3 and Interim Measure Work Plan (IMWP) for LOCs 16 and 29 at the June 2019 Team Meeting (Meeting Minute 1906-10, Decision 1906-D59). LOC 30 could not be sampled during the CS due to facility restrictions. Therefore, sample collection was recommended to be conducted once facility operations permitted. The June 2019 meeting minutes are presented in **Appendix A**.

Because of the need for additional activities at LOCs 3, 16, 29, and 30, it was recommended that LOCs 3, 16, 29, and 30 be removed from PRL 227 and become separate PRLs. LOC 3 was renamed as PRL 227a. With the removal of LOCs 3, 16, 29 and 30 from PRL 227, No Further Action (NFA) status was recommended at PRL 227 based on absence of contamination at LOCs 1, 2, 4 to 15, 17 to 24, 25 to 28, 31, 32, 34 to 39, and 40 to 49. LOC 33 previously received NFA as part of PRL 192 and no additional investigation activities were necessary at this LOC.

2.2 PREVIOUS INVESTIGATIONS AND FINDINGS

2.2.1 Solid Waste Management Unit Assessment

In support of the NASA Hazardous and SA requirements, the SAEE SA was conducted in 2015, which included site reconnaissance and interviews with personnel possessing knowledge of past and present work practices and operations at the site, and as identified in the SA Report (NASA, 2015). The SA evaluated 87 pieces of electrical equipment and 49 LOCs were identified. The site was identified as SAEE PRL 227a, formerly identified as PRL LOC 3. Potential environmental impacts related to operations were identified at PRL 227a. Potential contaminants in soil include PCBs and total recoverable petroleum hydrocarbons (TRPH). Samples collected from PRL 227a were to be screened against soil cleanup target levels (SCTL) (FDEP, 2005), TSCA requirements (40 CFR 761), and KSC background parking/traffic areas values (NASA, 2019).

2.2.2 Confirmatory Sampling

CS activities were conducted in accordance with the CSWP and Supplemental CS Work Plan (NASA, 2015; 2019) Initially, 10 soil samples were collected via hand auger from 10 locations. The soil samples were collected from 0-0.5 feet (ft) below land surface (bls) and analyzed for TRPH by FL-PRO and PCBs by SW-846 Method 8082. Based upon the initial PCB results, 70 additional soil samples were collected from 0-0.5, 0.5-2, and 2-3 ft bls, as well as five concrete samples, one asphalt sample, and one road base material sample to delineate PCBs. Additionally, one sample was collected from the location with the highest PCB concentration (SB0012) and analyzed for semi volatile organic compounds (SVOC) by SW-846 Method 8270 and two samples that exceeded leachability SCTLs were analyzed for synthetic precipitation leaching procedure (SPLP) for PCBs.

PCB concentrations in the initial 10 soil samples and additional 70 sample collected reported residential, industrial, and leachability SCTL exceedances at several locations. TRPH was detected at concentrations less than the SCTL. The soil sample analyzed for SVOCs did not report concentrations exceeding SCTLs. The soil samples analyzed for SPLP PCBs exceeded the groundwater cleanup target level (GCTL), therefore one shallow monitoring well (MW0001) was installed to a depth of 15 ft bls (screened from 5 to 15 ft bls) and a sample was collected and analyzed for PCBs. The monitoring well sample was below the GCTL for PCBs indicating that leachability was not a concern for PCBs.

The maximum total PCB concentration was 99 milligrams per kilogram (mg/kg) at SB0012 collected on the west side of the pad from 0.5 to 2 ft bls. The location was resampled and concentrations were less than 50 mg/kg. A sub slab soil sample beneath the pad and soil samples within five feet of the transformer pad could not be collected below two ft bls due to energized electrical lines associated with the transformer.

It should be noted that total PCB concentrations in surface soil samples (0 to 0.5 ft bls) collected north of the pad are greater than total PCB concentrations in samples closer to the pad. In addition, total PCB concentrations in several 0.5 to 2 ft bls samples in the northern area are greater than surface soil concentrations in the same area. This is suspected to be due to reworking of the area

since 2008 associated with removal of the Vertical Processing Facility (VPF) immediately east of PRL 227a and a cooling tower associated with the VPF that was located north of the site (**Figure 3**). In addition, a soil IM, including excavation of soil from 0 to 0.5 ft bls from three areas at the VPF, was completed in October 2009 near PRL 227a to address copper and chromium soil contamination. One of these areas was located adjacent to site (NASA, 2019).

3.0 FIELD ACTIVITIES

A total of 330 soil samples were collected between June 2020 and December 2022 from 88 locations at depths ranging from 0-0.5 to 19-20 ft bls. In general, soil samples collected from depths less than 5 ft were collected via hand auger and samples collected beyond 5 ft bls were collected using a direct-push technology drill rig. Soil samples collected from greater than 5 ft bls to 20 ft bls were collected to confirm PCBs were not present at depth in the aquifer matrix.. Delineation samples were collected using an approximately 20 ft horizontal spacing.

After the first CSRA sampling event was conducted in June 2020, the shallow depth intervals were changed from 0 to 0.5 and 0.5 to 2 ft bls to 0 to 0.5, 0.5 to 1, and 1 to 2 ft bls. Sixty-three soil samples exceeded the residential SCTL of 0.5 mg/kg, 25 samples exceeded the industrial SCTL of 2.6 mg/kg, and three samples exceeded the leachability SCTL of 17 mg/kg (**Figure 4** through **Figure 11**). PCB concentrations exceeding the SCTL were not detected in the soil samples collected from 0 to 0.5 and 0.5 to 2 ft bls beneath the load break switch (LBS) 35 concrete pad or beneath the driveway (**Figure 4** through **Figure 6**). Due to restricted access, samples could not be collected beneath the Communications Terminal #11 building.

In November 2020, samples were re-collected at SB0012 using depth intervals of 0-0.5, 0.5-1 and 1-2 ft. bls to clarify the earlier conflicting results above and below 50 mg/kg in the 0.5-2 ft. bls interval. The SB0012 samples were extracted using Method 3540 and analyzed by Method 8082. The two sets of PCB results are shown below:

Sample Interval	SB0012 - 2018	SB0012 - 2020
0-0.5 ft. bgs	14 mg/kg	12.3 mg/kg
0.5-1 ft. bgs	no sample	23.9 mg/kg
0.5-2 ft. bgs	99 mg/kg	no sample
	42 mg/kg	
1-2 ft. bgs	no sample	102 mg/kg

The 0.5-2 ft. bls sample interval was not used subsequently, and no delineation points are based on that interval. SB0012 1-2 ft. bls is the one location and interval at SAEE LOC 3 that has a result equal to or above 50 mg/kg PCBs.

The maximum depth of PCB concentrations above the residential SCTL was at SB0356 collected from 4 to 5 and 5 to 6 ft bls. PCB concentrations were below the residential SCTL in the 6 to 7 and 7 to 8 ft bls samples collected at SB0356. Six samples were collected from depths greater than 6 ft bls to confirm that PCB contamination had not migrated to depth. All samples collected below

6 ft bls reported concentrations less than the residential SCTL of 0.5 mg/kg. **Figure 11** provides analytical data from all depths, **Table 1** provides soil sampling results and, laboratory results are included in **Appendix C**. Field boring logs indicated a peat-rich hardpan layer at 10 ft bls and analytical results below the hardpan layer confirm the contamination did not migrate vertically. The overall horizontal and vertical delineation of PCBs in soil above screening levels was achieved. A copy of the field forms is provided in **Appendix D**.

One groundwater sample was collected on December 14, 2022, from shallow monitoring well SAEE-MW0001 which is screened from 5 to 15 feet bls. Monitoring well SAEE-MW001 was installed in the area with the greatest PCB soil concentration. The sample was collected using a peristaltic pump in accordance with FDEP Standard Operating Procedure FS2200 (FDEP, 2018) and the NASA KSC Sampling and Analysis Plan for the RCRA Program (NASA, 2017). Temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential were measured and recorded in the field. After collection, the groundwater sample was provided under proper chain-of-custody protocol to SGS North American Inc. of Orlando, Florida, for analysis of VOCs by U.S. Environmental Protection Agency (EPA) Method 8260B and for PCBs by SW846 Method 8082A.

No PCBs or VOCs were detected in the groundwater sample. The location of monitoring well SAEE-MW0001 is shown on **Figure 2**. Groundwater laboratory analytical results are summarized in **Table 2** and **Table 3**. Field documentation from the sampling events is provided in **Appendix D**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

In summary, 330 soil samples were collected from 88 locations at PRL 227a from June 2020 through December 2022. PCB impacted soil has been completely delineated to the residential SCTL at PRL 227a horizontally and vertically. PCB concentrations have been identified above the residential and industrial SCTL as well as concentrations greater than or equal to 50 ppm requiring coordination with EPA and disposal at a facility authorized under TSCA. Based upon the CSRA sampling, an interim measure is recommended to remove PCB impacted soil above the residential SCTL. The total volume of PCB impacted soil to be removed is 591.6 cubic yards. This includes approximately 9.3 cubic yards of soil with PCB concentrations greater than or equal to 50 ppm. Proposed excavation areas are provided in **Figure 12** and an IMWP is included in **Appendix E**.

The concrete curbing and asphalt driveway will be used as the eastern boundary of the excavation. Soil will not be excavated beneath the LBS 35 concrete pad or the Communications Terminal #11 building concrete pad. However, soil samples will be collected from the walls on the edge of the excavation at the LBS concrete pad SB0012 and SB0356 sample locations. If PCB-affected soil exceeding regulatory screening levels is present beneath the LBS 35 concrete pad, land use controls will be implemented, and the pad will be designated as an engineering control. A Land Use Control (LUC) Implementation Plan will be required for soils proximal to and beneath the

Communications Terminal #11 building which cannot be removed due to the presence of the building and underground utilities.

5.0 REFERENCES

Florida Department of Environmental Protection, 2005. Groundwater Cleanup Target Levels and Soil Cleanup Target Levels. Chapter 62-777, Florida Administrative Code. April.

National Aeronautics and Space Administration (NASA), 2015. Stand Alone Electrical Equipment (SAEE), PRL 227. SWMU Assessment Report/Confirmatory Sampling Work Plan. Kennedy Space Center, Florida. Prepared by MESC/IHA Environmental Services Branch. Revision 0. September.

NASA, 2019. Stand Alone Electrical Equipment (SAEE), PRL 227. Confirmatory Sampling Report. Kennedy Space Center, Florida. Prepared by Tetra Tech. Revision 0. August.

U.S. Environmental Protection Agency (EPA). 1976. Toxic Substances Control Act (TSCA) of 1976; 15 USC (C. 53) 2601-2692. Title I – Control of Toxic Substances (40 CFR Parts 700-766). Part 761.

TABLES

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0012	0-0.5'	11/10/2020	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	12.3	12.3
	0.5'-1'	11/10/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	23.9	23.9
	1'-2'	11/10/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	102	102
	2'-3'	6/29/2020	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	3.26	3.26
	3'-4'	6/15/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.05 U	0.059 U
	4'-5'	6/15/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
	9'-10'	2/14/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.041 U	0.041 U	0.049 U
	10'-11'	2/14/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
	19'-20'	2/14/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.055 U	0.046 U	0.046 U	0.055 U
SAEE-SB0013	0.5'-2'	6/29/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.0864	0.0864
SAEE-SB0286	0.5'-2'	6/26/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
SAEE-SB0291	2'-3'	6/29/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.333	0.333
SAEE-SB0292	2'-3'	6/29/2020	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.0881	0.038 U	0.0881
SAEE-SB0293	2'-3'	6/29/2020	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.157	0.041 U	0.157
SAEE-SB0296	2'-3'	6/29/2020	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	10.2	0.039 U	10.2
	3'-4'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.571	0.047 U	0.571
	4'-5'	11/3/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.055 U	0.0519 J	0.046 U	0.0519 J
	5'-6'	11/3/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.064 U	0.0826	0.054 U	0.0826
SAEE-SB0300	0-0.5'	6/29/2020	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.698	0.04 U	0.698
SAEE-SB0301	0-0.5'	6/29/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.498	0.042 U	0.498
SAEE-SB0302	0-0.5'	6/26/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	2.68	2.68
SAEE-SB0303	0-0.5'	6/26/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.311	0.208	0.519
	0.5'-2'	6/26/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U
SAEE-SB0304	0-0.5'	6/26/2020	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.038 U	0.156	0.156
SAEE-SB0305	0-0.5'	6/29/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.052 U	0.045 U	0.0696	0.0696
SAEE-SB0306	0-0.5'	6/26/2020	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.048 U	0.0962	0.0962
SAEE-SB0307	0-0.5'	6/26/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U
	5'-6'	2/14/2022	0.056 U	0.056 U	0.056 U	0.056 U	0.066 U	0.056 U	0.056 U	0.066 U
SAEE-SB0308	0-0.5'	6/26/2020	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	0.104	0.104
SAEE-SB0309	0-0.5'	6/26/2020	0.037 U	0.037 U	0.037 U	0.037 U	0.044 U	0.037 U	0.0686	0.0686
SAEE-SB0310	0-0.5'	6/26/2020	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	3.65	3.65
SAEE-SB0311	0-0.5'	6/26/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.9	0.9
SAEE-SB0312	0-0.5'	6/29/2020	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.228	0.228

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0313	0-0.5'	6/29/2020	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.769	0.769
	0.5'-2'	9/15/2020	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	1.12	1.12
SAEE-SB0314	0-0.5'	6/29/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.05 U	0.042 U	0.192	0.192
	0.5'-2'	9/1/2020	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.054 U	0.511	0.511
SAEE-SB0315	0-0.5'	6/29/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.189	0.818	1.007
	0.5'-2'	6/29/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	9.41	0.042 U	9.41
SAEE-SB0316	0.5'-2'	6/29/2020	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.569	0.945	1.514
SAEE-SB0317	0.5'-2'	6/29/2020	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	1.17	0.04 U	1.17
SAEE-SB0318	0-0.5'	6/29/2020	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.178	0.0449 J	0.2229
	0.5'-2'	9/1/2020	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	2.05	0.054 U	2.05
	2'-3'	6/29/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.709	0.045 U	0.709
SAEE-SB0319	0.5'-2'	6/29/2020	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.388	0.24	0.628
SAEE-SB0320	0-0.5'	6/25/2020	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U
	0.5'-2'	6/25/2020	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
SAEE-SB0321	0.5'-1'	5/12/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.044 U	0.052 U
	1'-2'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	0.04 U	0.047 U
	2'-3'	5/12/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.051 U	0.044 U	0.044 U	0.051 U
SAEE-SB0322	0.5'-1'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	1'-2'	5/12/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.044 U	0.052 U
	2'-3'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
SAEE-SB0323	0.5'-1'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	1'-2'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	0.04 U	0.047 U
	2'-3'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U
SAEE-SB0324	0.5'-1'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
	1'-2'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
	2'-3'	5/12/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
SAEE-SB0325	0.5'-1'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
	1'-2'	5/12/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
	2'-3'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
	3'-4'	11/3/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.049 U	0.049 U	0.057 U
	4'-5'	11/3/2021	0.052 U	0.052 U	0.052 U	0.052 U	0.062 U	0.052 U	0.052 U	0.062 U
	5'-6'	2/14/2022	0.04 U	0.04 U	0.04 U	0.04 U	0.046 U	0.04 U	0.04 U	0.046 U
	6'-7'	2/14/2022	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
	7'-8'	2/14/2022	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0326	0.5'-1'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	0.04 U	0.047 U
	1'-2'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	2'-3'	5/12/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
	3'-4'	11/3/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
	4'-5'	11/3/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
	5'-6'	2/14/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
	6'-7'	2/14/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.043 U	0.051 U
	7'-8'	2/14/2022	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
SAEE-SB0327	0-0.5'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.041 U	0.041 U	0.049 U
	0.5'-1'	5/12/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
	1'-2'	5/12/2021	0.031 U	0.031 U	0.031 U	0.031 U	0.036 U	0.031 U	0.031 U	0.036 U
	2'-3'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.036 U	0.03 U	0.03 U	0.036 U
	3'-4'	11/3/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
	4'-5'	11/3/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.051 U	0.051 U	0.06 U
SAEE-SB0328	0-0.5'	5/12/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.039 U	0.033 U	0.0422	0.0422
	0.5'-1'	5/12/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.032 U	0.0211 J	0.0211 J
	1'-2'	5/12/2021	0.028 U	0.028 U	0.028 U	0.028 U	0.033 U	0.028 U	0.028 U	0.033 U
	2'-3'	5/12/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.039 U	0.033 U	0.033 U	0.039 U
SAEE-SB0329	0-0.5'	5/12/2021	0.031 U	0.031 U	0.031 U	0.031 U	0.036 U	0.031 U	0.031 U	0.036 U
	0.5'-1'	5/12/2021	0.036 U	0.036 U	0.036 U	0.036 U	0.042 U	0.036 U	0.0547	0.0547
	1'-2'	5/12/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.037 U	0.032 U	0.032 U	0.037 U
	2'-3'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.036 U	0.03 U	0.03 U	0.036 U
SAEE-SB0330	0-0.5'	5/12/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.037 U	0.032 U	0.0364 J	0.0364 J
	0.5'-1'	5/12/2021	0.031 U	0.031 U	0.031 U	0.031 U	0.036 U	0.031 U	0.031 U	0.036 U
	1'-2'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.035 U	0.03 U	0.03 U	0.035 U
	2'-3'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.035 U	0.03 U	0.03 U	0.035 U
SAEE-SB0331	0-0.5'	5/12/2021	0.034 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U	0.0446	0.0446
	0.5'-1'	5/12/2021	0.034 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.04 U
	1'-2'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.036 U	0.03 U	0.03 U	0.036 U
	2'-3'	5/12/2021	0.03 U	0.03 U	0.03 U	0.03 U	0.035 U	0.03 U	0.03 U	0.035 U
SAEE-SB0332	0-0.5'	5/12/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.039 U	0.253	0.117	0.37
	0.5'-1'	5/12/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.037 U	0.383	0.032 U	0.383
	1'-2'	5/12/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
	2'-3'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0333	0-0.5'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.16	0.043 U	0.16
	0.5'-1'	5/12/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	3.48	0.046 U	3.48
	1'-2'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.0485 J	0.041 U	0.0485 J
	2'-3'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.042 U	0.042 U	0.049 U
SAEE-SB0334	0-0.5'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.289	0.043 U	0.289
	0.5'-1'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	1.47	0.041 U	1.47
	1'-2'	5/12/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.589	0.045 U	0.589
	2'-3'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.0547	0.043 U	0.0547
SAEE-SB0335	0-0.5'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.508	0.042 U	0.508
	0.5'-1'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.05 U	5.45	0.042 U	5.45
	1'-2'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.417	0.04 U	0.417
	2'-3'	5/12/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
SAEE-SB0336	0-0.5'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.203	0.04 U	0.203
	0.5'-1'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.145	0.04 U	0.145
	1'-2'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	0.04 U	0.047 U
	2'-3'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.043 U	0.051 U
SAEE-SB0337	0-0.5'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.046 U	0.309	0.04 U	0.309
	0.5'-1'	5/12/2021	0.038 U	0.038 U	0.038 U	0.038 U	0.044 U	0.2	0.038 U	0.2
	1'-2'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.872	0.04 U	0.872
	2'-3'	5/12/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.228	0.042 U	0.228
	3'-4'	5/12/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.0542	0.043 U	0.0542
SAEE-SB0338	0-0.5'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.031 J	0.041 U	0.031 J
	0.5'-1'	5/12/2021	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.231	0.038 U	0.231
	1'-2'	5/12/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.0968	0.041 U	0.0968
	2'-3'	5/12/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U	1.58	0.04 U	1.58
	3'-4'	6/15/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.049 U	0.049 U	0.058 U
	4'-5'	6/15/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
SAEE-SB0339	0-0.5'	8/31/2021	0.059 U	0.059 U	0.059 U	0.059 U	0.07 U	1.14	0.059 U	1.14
	0.5'-1'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.22	0.054 U	0.22
	1'-2'	8/31/2021	0.052 U	0.052 U	0.052 U	0.052 U	0.061 U	0.491	0.052 U	0.491
	2'-3'	8/31/2021	0.055 U	0.055 U	0.055 U	0.055 U	0.064 U	0.055 U	0.055 U	0.064 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0340	0-0.5'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.115	0.049 U	0.115
	0.5'-1'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.051 U	0.051 U	0.06 U
	1'-2'	8/31/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
	2'-3'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.054 U	0.054 U	0.063 U
SAEE-SB0341	0-0.5'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.33	0.048 U	0.33
	0.5'-1'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
	1'-2'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.05 U	0.059 U
	2'-3'	8/31/2021	0.058 U	0.058 U	0.058 U	0.058 U	0.069 U	0.058 U	0.058 U	0.069 U
SAEE-SB0342	0-0.5'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.249	0.048 U	0.249
	0.5'-1'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.05 U	0.059 U
	1'-2'	8/31/2021	0.057 U	0.057 U	0.057 U	0.057 U	0.067 U	0.057 U	0.057 U	0.067 U
	2'-3'	8/31/2021	0.059 U	0.059 U	0.059 U	0.059 U	0.07 U	0.059 U	0.059 U	0.07 U
SAEE-SB0343	0-0.5'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.064 U	0.054 U	0.054 U	0.064 U
	0.5'-1'	8/31/2021	0.06 U	0.06 U	0.06 U	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
	1'-2'	8/31/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
SAEE-SB0344	0-0.5'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.817	0.047 U	0.817
	0.5'-1'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.0892	0.048 U	0.0892
	1'-2'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.054 U	0.054 U	0.063 U
SAEE-SB0345	0-0.5'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
	0.5'-1'	8/31/2021	0.055 U	0.055 U	0.055 U	0.055 U	0.065 U	0.0465 J	0.055 U	0.0465 J
	1'-2'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.0698	0.054 U	0.0698
	2'-3'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.456	0.05 U	0.456
SAEE-SB0346	0-0.5'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.0746	0.049 U	0.0746
	0.5'-1'	8/31/2021	0.055 U	0.055 U	0.055 U	0.055 U	0.064 U	0.0492 J	0.055 U	0.0492 J
	1'-2'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.0832	0.049 U	0.0832
	2'-3'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
	3'-4'	8/31/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
SAEE-SB0347	0-0.5'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.056 U	0.139	0.047 U	0.139
	0.5'-1'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.064 U	0.26	0.054 U	0.26
	1'-2'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.365	0.049 U	0.365
	2'-3'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.049 U	0.049 U	0.058 U
	3'-4'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.05 U	0.059 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0348	0-0.5'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
	0.5'-1'	8/31/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	4.14	0.041 U	4.14
	1'-2'	8/31/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	1.17	0.041 U	1.17
	2'-3'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.582	0.047 U	0.582
	3'-4'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.056 U	0.189	0.047 U	0.189
SAEE-SB0349	0-0.5'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.545	0.054 U	0.545
	0.5'-1'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.455	0.051 U	0.455
	1'-2'	8/31/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
	2'-3'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.0673	0.05 U	0.0673
	3'-4'	8/31/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.051 U	0.044 U	0.044 U	0.051 U
SAEE-SB0350	0-0.5'	8/31/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.611	0.042 U	0.611
	0.5'-1'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	1.1	0.054 U	1.1
	1'-2'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.406	0.049 U	0.406
	2'-3'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.051 U	0.051 U	0.06 U
	3'-4'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
SAEE-SB0351	0-0.5'	11/3/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
	0.5'-1'	11/3/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	1'-2'	11/3/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	2'-3'	11/3/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.051 U	0.044 U	0.044 U	0.051 U
	3'-4'	11/3/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.048 U	0.056 U
SAEE-SB0352	0-0.5'	8/31/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.05 U	0.229	0.042 U	0.229
	0.5'-1'	8/31/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	3.29	0.044 U	3.29
	1'-2'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	8.8	0.051 U	8.8
	2'-3'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	1.05	0.048 U	1.05
	3'-4'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.059 U	0.195	0.051 U	0.195
SAEE-SB0353	0-0.5'	8/31/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	1.38	0.043 U	1.38
	0.5'-1'	8/31/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.049 U	0.923	0.041 U	0.923
	1'-2'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.0893	0.051 U	0.0893
	2'-3'	8/31/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.044 U	0.052 U
	3'-4'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.0438 J	0.046 U	0.0438 J

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0354	0-0.5'	8/31/2021	0.036 U	0.036 U	0.036 U	0.036 U	0.042 U	0.0726	0.036 U	0.0726
	0.5'-1'	8/31/2021	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	0.0606	0.038 U	0.0606
	1'-2'	8/31/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.0938	0.042 U	0.0938
	2'-3'	8/31/2021	0.037 U	0.037 U	0.037 U	0.037 U	0.043 U	0.208	0.497	0.705
	3'-4'	8/31/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.21	0.043 U	0.21
SAEE-SB0355	0-0.5'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	2.58	2.58
	0.5'-1'	8/31/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.488	0.488
	1'-2'	8/31/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.051 U	0.044 U	0.493	0.493
	2'-3'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.049 U	0.049 U	0.058 U
	3'-4'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.046 J	0.046 J
SAEE-SB0356	0-0.5'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	6.42	6.42
	0.5'-1'	8/31/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.063 U	0.053 U	4.86	4.86
	1'-2'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	10.7	10.7
	2'-3'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	10.1	10.1
	3'-4'	11/3/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.058 U	0.05 U	33.1	33.1
	4'-5'	11/3/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	3.57	3.57
	5'-6'	2/14/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	3.08	3.08
	6'-7'	2/14/2022	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	0.039 U	0.046 U
	7'-8'	2/14/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
SAEE-SB0357	0-0.5'	8/31/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.051 U	1.45	1.45
	0.5'-1'	8/31/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.064 U	0.054 U	0.467	0.467
	1'-2'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.048 U	0.705	0.705
	2'-3'	8/31/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.0853	0.0853
	3'-4'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.049 U	0.049 U	0.057 U
	9'-10'	2/14/2022	0.056 U	0.056 U	0.056 U	0.056 U	0.065 U	0.056 U	0.056 U	0.065 U
SAEE-SB0358	0-0.5'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	10.3	10.3
	0.5'-1'	8/31/2021	0.04 U	0.04 U	0.04 U	0.04 U	0.047 U	0.04 U	1.13	1.13
	1'-2'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.048 U	0.206	0.206
	2'-3'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.539	0.539
	3'-4'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.397	0.397

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0359	0-0.5'	8/31/2021	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	4.57	4.57
	0.5'-1'	8/31/2021	0.037 U	0.037 U	0.037 U	0.037 U	0.044 U	0.037 U	1.11	1.11
	1'-2'	8/31/2021	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	0.0726	0.0726
	2'-3'	8/31/2021	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.0548 J	0.0548 J
	3'-4'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.0615	0.0615
SAEE-SB0360	0-0.5'	8/31/2021	0.042 U	0.042 U	0.042 U	0.042 U	0.05 U	0.042 U	0.721	0.721
	0.5'-1'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.464	0.464
	1'-2'	8/31/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	1	1
	2'-3'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.117	0.117
	3'-4'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.0312 J	0.0312 J
	4'-5'	2/14/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	5'-6'	2/14/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.041 U	0.048 U
	6'-7'	2/14/2022	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	0.039 U	0.046 U
	7'-8'	2/14/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.043 U	0.05 U
SAEE-SB0361	0-0.5'	8/31/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.049 U	0.295	0.295
	0.5'-1'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.302	0.302
	1'-2'	8/31/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.166	0.166
	2'-3'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.0775	0.0775
	3'-4'	8/31/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.043 U	0.0434 J	0.0434 J
SAEE-SB0362	0-0.5'	8/31/2021	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.0762	0.0762
	0.5'-1'	8/31/2021	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.462	0.462
	1'-2'	8/31/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
	2'-3'	8/31/2021	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.043 U	0.051 U
	3'-4'	11/3/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.056 U	0.048 U	0.0873	0.0873
	4'-5'	11/3/2021	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.048 U	0.048 U	0.057 U
	5'-6'	2/14/2022	0.049 U	0.049 U	0.049 U	0.049 U	0.058 U	0.049 U	0.049 U	0.058 U
	6'-7'	2/14/2022	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
	7'-8'	2/14/2022	0.039 U	0.039 U	0.039 U	0.039 U	0.045 U	0.039 U	0.039 U	0.045 U
SAEE-SB0363	0-0.5'	11/3/2021	0.036 U	0.036 U	0.036 U	0.036 U	0.042 U	0.036 U	0.036 U	0.042 U
	0.5'-1'	11/3/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.039 U	0.033 U	0.033 U	0.039 U
	1'-2'	11/3/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.032 U	0.032 U	0.038 U
	2'-3'	11/3/2021	0.036 U	0.036 U	0.036 U	0.036 U	0.042 U	0.036 U	0.036 U	0.042 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0364	0-0.5'	11/3/2021	0.035 U	0.035 U	0.035 U	0.035 U	0.041 U	0.0298 J	0.035 U	0.0298 J
	0.5'-1'	11/3/2021	0.036 U	0.036 U	0.036 U	0.036 U	0.043 U	0.036 U	0.036 U	0.043 U
	1'-2'	11/3/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.0308 J	0.032 U	0.0308 J
	2'-3'	11/3/2021	0.034 U	0.034 U	0.034 U	0.034 U	0.04 U	0.0279 J	0.034 U	0.0279 J
SAEE-SB0365	0-0.5'	11/3/2021	0.034 U	0.034 U	0.034 U	0.034 U	0.039 U	0.0304 J	0.034 U	0.0304 J
	0.5'-1'	11/3/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.032 U	0.032 U	0.038 U
	1'-2'	11/3/2021	0.031 U	0.031 U	0.031 U	0.031 U	0.037 U	0.031 U	0.031 U	0.037 U
	2'-3'	11/3/2021	0.037 U	0.037 U	0.037 U	0.037 U	0.044 U	0.037 U	0.037 U	0.044 U
SAEE-SB0366	0-0.5'	11/3/2021	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.0521	0.039 U	0.0521
	0.5'-1'	11/3/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.063 U	0.054 U	0.054 U	0.063 U
	1'-2'	11/3/2021	0.061 U	0.061 U	0.061 U	0.061 U	0.072 U	0.061 U	0.061 U	0.072 U
	2'-3'	11/3/2021	0.066 U	0.066 U	0.066 U	0.066 U	0.078 U	0.066 U	0.066 U	0.078 U
SAEE-SB0367	0-0.5'	11/3/2021	0.059 U	0.059 U	0.059 U	0.059 U	0.069 U	0.0806	0.059 U	0.0806
	0.5'-1'	11/3/2021	0.055 U	0.055 U	0.055 U	0.055 U	0.064 U	0.055 U	0.055 U	0.064 U
	1'-2'	11/3/2021	0.052 U	0.052 U	0.052 U	0.052 U	0.061 U	0.052 U	0.052 U	0.061 U
	2'-3'	11/3/2021	0.054 U	0.054 U	0.054 U	0.054 U	0.064 U	0.054 U	0.054 U	0.064 U
SAEE-SB0368	0-0.5'	11/3/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.0627 J	0.05 U	0.0627 J
	0.5'-1'	11/3/2021	0.059 U	0.059 U	0.059 U	0.059 U	0.07 U	0.059 U	0.059 U	0.07 U
	1'-2'	11/3/2021	0.06 U	0.06 U	0.06 U	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
SAEE-SB0369	0-0.5'	11/3/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.429	0.05 U	0.429
	0.5'-1'	11/3/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.051 U	0.051 U	0.06 U
	1'-2'	11/3/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.047 U	0.047 U	0.055 U
SAEE-SB0370	0-0.5'	11/3/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.056 U	0.0786	0.047 U	0.0786
	0.5'-1'	11/3/2021	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	0.05 U	0.05 U	0.059 U
	1'-2'	11/3/2021	0.045 U	0.045 U	0.045 U	0.045 U	0.052 U	0.045 U	0.045 U	0.052 U
SAEE-SB0371	0-0.5'	11/3/2021	0.051 U	0.051 U	0.051 U	0.051 U	0.06 U	0.409	0.051 U	0.409
	0.5'-1'	11/3/2021	0.047 U	0.047 U	0.047 U	0.047 U	0.055 U	0.219	0.047 U	0.219
	1'-2'	11/3/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.049 U	0.049 U	0.057 U
SAEE-SB0372	0-0.5'	11/3/2021	0.052 U	0.052 U	0.052 U	0.052 U	0.061 U	0.0644 J	0.052 U	0.0644 J
	0.5'-1'	11/3/2021	0.049 U	0.049 U	0.049 U	0.049 U	0.057 U	0.049 U	0.049 U	0.057 U
	1'-2'	11/3/2021	0.053 U	0.053 U	0.053 U	0.053 U	0.062 U	0.053 U	0.053 U	0.062 U
	2'-3'	11/3/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.032 U	0.032 U	0.038 U
	3'-4'	11/3/2021	0.034 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.04 U

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0373	0-0.5'	11/3/2021	0.032 U	0.032 U	0.032 U	0.032 U	0.038 U	0.086	0.032 U	0.086
	0.5'-1'	11/3/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.039 U	0.033 U	0.033 U	0.039 U
	1'-2'	11/3/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.038 U	0.033 U	0.033 U	0.038 U
	2'-3'	11/3/2021	0.035 U	0.035 U	0.035 U	0.035 U	0.041 U	0.035 U	0.035 U	0.041 U
	3'-4'	11/3/2021	0.033 U	0.033 U	0.033 U	0.033 U	0.038 U	0.033 U	0.033 U	0.038 U
SAEE-SB0374	0-0.5'	2/14/2022	0.038 U	0.038 U	0.038 U	0.038 U	0.045 U	1	0.038 U	1
	0.5'-1'	2/14/2022	0.042 U	0.042 U	0.042 U	0.042 U	0.05 U	1.59	0.042 U	1.59
	1'-2'	2/14/2022	0.05 U	0.05 U	0.05 U	0.05 U	0.059 U	2.88	0.05 U	2.88
	2'-3'	2/14/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.05 U	0.625	0.043 U	0.625
	3'-4'	2/14/2022	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.045 U	0.053 U
SAEE-SB0375	0-0.5'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.507	0.041 U	0.507
	0.5'-1'	12/19/2022	0.040 U	0.040 U	0.040 U	0.040 U	0.047 U	1.29	0.040 U	1.29
	1'-2'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	8.26	0.041 U	8.26
	2'-3'	12/19/2022	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	3.58	0.044 U	3.58
	3'-4'	12/19/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.050 U	0.452	0.043 U	0.452
SAEE-SB0376	0-0.5'	12/19/2022	0.040 U	0.040 U	0.040 U	0.040 U	0.047 U	0.109	0.040 U	0.109
	0.5'-1'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.068	0.041 U	0.068
	1'-2'	12/19/2022	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	0.039 U	0.046 U
	2'-3'	12/19/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.043 U	0.051 U
	3'-4'	12/19/2022	0.040 U	0.040 U	0.040 U	0.040 U	0.047 U	0.040 U	0.040 U	0.047 U
SAEE-SB0377	0.5'-1'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.033	0.041 U	0.033
	1'-2'	12/19/2022	0.044 U	0.044 U	0.044 U	0.044 U	0.051 U	0.039	0.044 U	0.039
	2'-3'	12/19/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
SAEE-SB0378	2'-3'	12/19/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.32	0.32
	3'-4'	12/19/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.052	0.052
	4'-5'	12/19/2022	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.153	0.153
	5'-6'	12/19/2022	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.266	0.266
	6'-7'	12/19/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.053 U	0.046 U	0.151	0.151
SAEE-SB0379	2'-3'	12/19/2022	0.039 U	0.039 U	0.039 U	0.039 U	0.046 U	0.039 U	0.101	0.101
	3'-4'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.041 U	0.071	0.071
	4'-5'	12/19/2022	0.045 U	0.045 U	0.045 U	0.045 U	0.052 U	0.045 U	0.045 U	0.052 U
	5'-6'	12/19/2022	0.045 U	0.045 U	0.045 U	0.045 U	0.053 U	0.045 U	0.124	0.124
	6'-7'	12/19/2022	0.040 U	0.040 U	0.040 U	0.040 U	0.047 U	0.040 U	0.420	0.420

Table 1
Soil Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-SB0380	0-0.5'	12/19/2022	0.040 U	0.040 U	0.040 U	0.040 U	0.047 U	0.085	0.480	0.565
	0.5'-1'	12/19/2022	0.042 U	0.042 U	0.042 U	0.042 U	0.049 U	0.033	0.142	0.175
	1'-2'	12/19/2022	0.041 U	0.041 U	0.041 U	0.041 U	0.048 U	0.177	0.041 U	0.177
	2'-3'	12/19/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.037	0.037
	3'-4'	12/19/2022	0.044 U	0.044 U	0.044 U	0.044 U	0.052 U	0.044 U	0.040	0.040
	4'-5'	12/19/2022	0.046 U	0.046 U	0.046 U	0.046 U	0.054 U	0.046 U	0.046 U	0.054 U
	5'-6'	12/19/2022	0.048 U	0.048 U	0.048 U	0.048 U	0.057 U	0.048 U	0.048 U	0.057 U
	6'-7'	12/19/2022	0.043 U	0.043 U	0.043 U	0.043 U	0.051 U	0.043 U	0.043 U	0.051 U

Notes

All results in milligrams per kilogram

Exceeds residential SCTL

Exceeds industrial SCTL

Exceeds leachability SCTL

Requires EPA Coordination

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

J = The chemical was detected but the concentration reported is an estimated value.

U = The chemical was not detected.

Table 2
Groundwater Sampling Results - PCBs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Sample ID	Depth	Date Sampled	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
SAEE-MW0001	5'-15'	12/14/2022	0.20 U	0.30 U	0.30 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes

All results in micrograms per liter

Data Qualifiers:

U = The chemical was not detected.

Table 3
Groundwater Sampling Results - VOCs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Monitoring Well ID:	**FL Groundwater Criteria (FAC 62-777)**	**SAEE-MW0001-**
Date Sampled:		**12/14/2022**
Compound		**Result**
Acetone	6300	20 U
Benzene	1	0.50 U
Bromobenzene	-	0.50 U
Bromochloromethane	91	0.50 U
Bromodichloromethane	0.6	0.50 U
Bromoform	4.4	0.50 U
2-Butanone (MEK)	4200	3.5 U
n-Butylbenzene	-	0.50 U
sec-Butylbenzene	-	0.50 U
tert-Butylbenzene	-	0.50 U
Carbon Disulfide	700	1.0 U
Carbon Tetrachloride	3	0.50 U
Chlorobenzene	100	0.50 U
Chloroethane	12	1.0 U
Chloroform	70	0.50 U
o-Chlorotoluene	140	0.50 U
p-Chlorotoluene	140	0.50 U
Dibromochloromethane	0.4	0.50 U
1,2-Dibromo-3-chloropropane	0.2	2.0 U
1,2-Dibromoethane	0.02	1.0 U
Dichlorodifluoromethane	1400	1.0 U
1,2-Dichlorobenzene	600	0.50 U
1,3-Dichlorobenzene	210	0.50 U
1,4-Dichlorobenzene	75	0.50 U
1,1-Dichloroethane	70	0.50 U
1,2-Dichloroethane	3	0.50 U
1,1-Dichloroethylene	7	0.50 U
cis-1,2-Dichloroethylene	70	0.50 U
trans-1,2-Dichloroethylene	100	0.50 U
1,2-Dichloropropane	5	0.50 U
1,3-Dichloropropane	-	0.50 U
2,2-Dichloropropane	-	0.50 U
1,1-Dichloropropene	-	0.50 U
cis-1,3-Dichloropropene	-	0.50 U
trans-1,3-Dichloropropene	-	0.50 U
Ethylbenzene	30	0.50 U
Hexachlorobutadiene	0.4	1.0 U
2-Hexanone	280	5.0 U
Isopropylbenzene	0.8	0.50 U

Table 3
Groundwater Sampling Results - VOCs
Stand Alone Electrical Equipment, PRL227a
Kennedy Space Center, Florida

Monitoring Well ID:	**FL Groundwater Criteria (FAC 62-777)**	**SAEE-MW0001-**
Date Sampled:		**12/14/2022**
Compound		**Result**
p-Isopropyltoluene	-	0.50 U
Methyl Bromide	9.8	4.0 U
Methyl Chloride	2.7	1.0 U
Methylene Bromide	70	0.50 U
Methylene Chloride	5	4.0 U
4-Methyl-2-pentanone (MIBK)	560	2.0 U
Methyl Tert Butyl Ether	20	0.50 U
Naphthalene	14	2.0 U
n-Propylbenzene	-	0.50 U
Styrene	100	0.50 U
1,1,1,2-Tetrachloroethane	1.3	0.50 U
1,1,2,2-Tetrachloroethane	0.2	0.50 U
Tetrachloroethylene	3	0.50 U
Toluene	40	0.50 U
1,2,3-Trichlorobenzene	70	1.0 U
1,2,4-Trichlorobenzene	70	1.0 U
1,1,1-Trichloroethane	200	0.50 U
1,1,2-Trichloroethane	5	0.50 U
Trichloroethylene	3	0.50 U
Trichlorofluoromethane	2100	1.0 U
1,2,3-Trichloropropane	0.02	1.0 U
1,2,4-Trimethylbenzene	10	0.50 U
1,3,5-Trimethylbenzene	10	0.50 U
Vinyl Acetate	88	5.0 U
Vinyl Chloride	1	0.50 U
m,p-Xylene	20	1.0 U
o-Xylene	20	0.50 U

Notes

All results in micrograms per liter

Data Qualifiers:

U = The chemical was not detected.

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FIGURES

Figure 1
PRL-227a
Site Location

Legend

PRL 227a Boundary

Kennedy Space Center

Notes:
PRL=Potential Release Location

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA
(01)PRL227a_Site_Location.mxd
1/30/2023 TB
Source: HGL
ArcGIS Online Imagery

Figure 2
PRL-227a
Site Layout

Legend

Monitoring Well

PRL 227a

Notes:
PRL=Potential Release Location

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(02)PRL227a_Site_Layout.mxd
2/27/2023 TB
Source: HGL, NASA
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3
PRL-227a
Site Layout

Legend

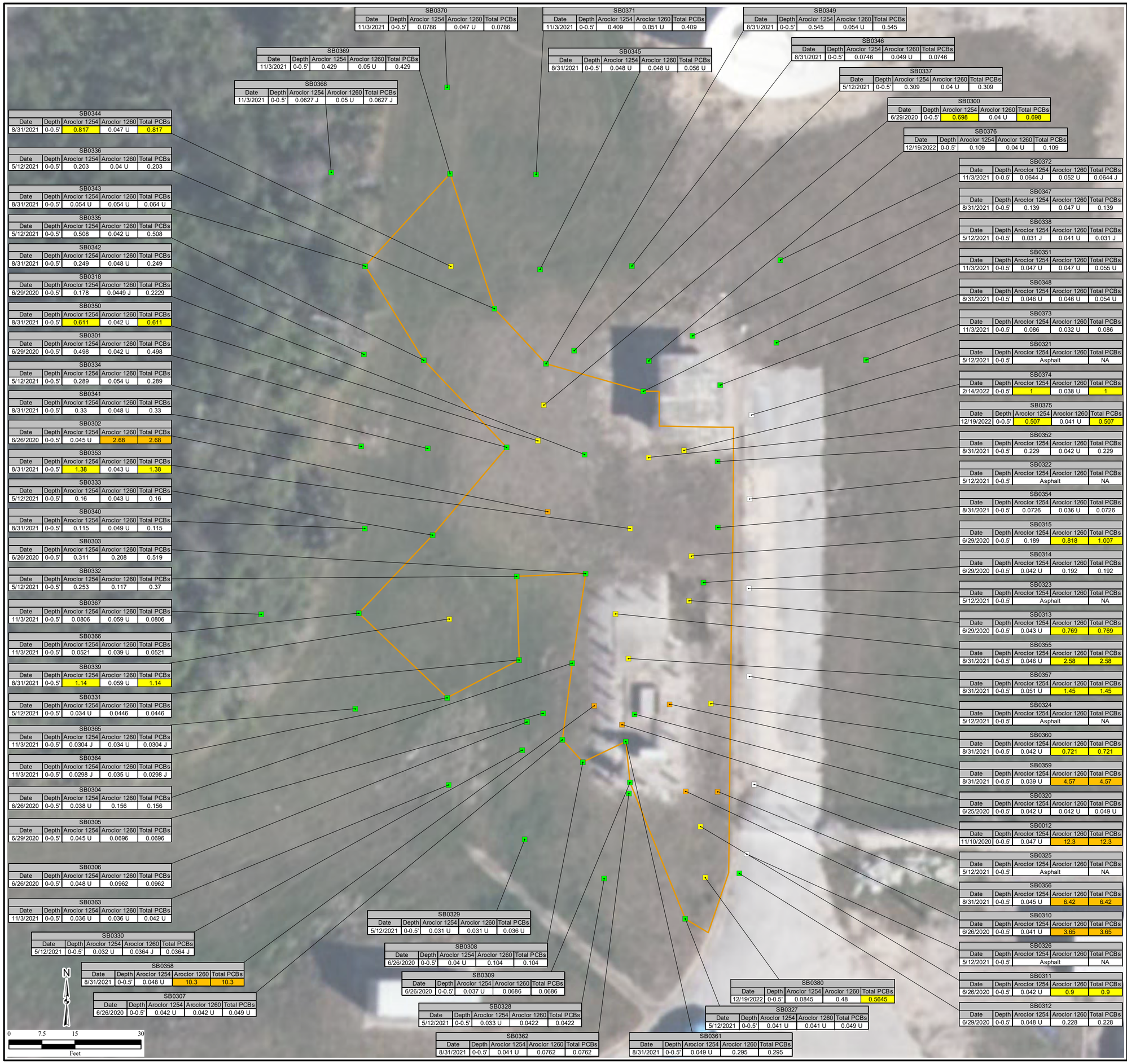
PRL 227a

Notes:
PRL=Potential Release Location

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(03)PRL227a_Site_Layout_Current-Former.mxd
1/30/2023 TB
Source: HGL, NASA ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 4
PRL-227 Location 3
Soil Total PCBs
(0–0.5 feet)



Legend

- Asphalt - Soil Sample not collected
- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Extent of Total PCBs above SCTLs

Notes:
Yellow=Exceeds Residential SCTL (0.5 mg/kg)
Orange=Exceeds Industrial SCTL (2.6 mg/kg)

mg/kg=milligrams per kilogram
NA=not analyzed
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(04)Soil_Total_AroclorPCBs(0-0.5).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 5
PRL-227 Location 3
Soil Total PCBs
(0.5-1 feet)

SB0370				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.05 U	0.05 U	0.059 U

SB0371				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.219	0.047 U	0.219

SB0349				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.455	0.051 U	0.455

SB0369				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.051 U	0.051 U	0.06 U

SB0345				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.0465 J	0.055 U	0.0465 J

SB0346				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.0492 J	0.055 U	0.0492 J

SB0368				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.059 U	0.059 U	0.07 U

SB0337				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.2	0.038 U	0.2

SB0376				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0.5'-1'	0.0678	0.041 U	0.0678

SB0344				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.0892	0.048 U	0.0892

SB0336				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.145	0.04 U	0.145

SB0343				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.06 U	0.06 U	0.07 U

SB0375				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0.5'-1'	1.29	0.04 U	1.29

SB0335				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	5.45	0.042 U	5.45

SB0342				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.05 U	0.05 U	0.059 U

SB0318				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
9/1/2020	0.5'-2'	2.05	0.054 U	2.05

SB0350				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	1.1	0.054 U	1.1

SB0334				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	1.47	0.041 U	1.47

SB0341				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.048 U	0.048 U	0.056 U

SB0316				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.569	0.945	1.514

SB0353				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.923	0.041 U	0.923

SB0319				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.388	0.24	0.628

SB0333				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	3.48	0.046 U	3.48

SB0340				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.051 U	0.051 U	0.06 U

SB0303				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0.5'-2'	0.042 U	0.042 U	0.049 U

SB0332				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.383	0.032 U	0.383

SB0367				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.055 U	0.055 U	0.064 U

SB0366				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.054 U	0.054 U	0.063 U

SB0339				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.22	0.054 U	0.22

SB0331				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.034 U	0.034 U	0.04 U

SB0365				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.032 U	0.032 U	0.038 U

SB0364				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.036 U	0.036 U	0.043 U

SB0013				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.042 U	0.0864	0.0864

SB0306				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	48 U	96.2	96.2

SB0363				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.033 U	0.033 U	0.039 U

SB0330				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.031 U	0.031 U	0.036 U

SB0358				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.04 U	1.13	1.13

SB0307				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	42 U	42 U	49 U

SB0329				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.036 U	0.0547	0.0547

SB0286				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0.5'-2'	0.045 U	0.045 U	0.053 U

SB0328				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.032 U	0.0211 J	0.0211 J

SB0362				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.046 U	0.462	0.462

SB0380				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0.5'-1'	0.0331 J	0.142	0.1751

SB0361				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.046 U	0.302	0.302

SB0327				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.046 U	0.046 U	0.054 U

SB0372				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.049 U	0.049 U	0.057 U

SB0347				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.26	0.054 U	0.26

SB0338				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.231	0.038 U	0.231

SB0377				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0.5'-1'	0.0331 J	0.041 U	0.0331 J

SB0351				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.041 U	0.041 U	0.048 U

SB0348				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	4.14	0.041 U	4.14

SB0373				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0.5'-1'	0.033 U	0.033 U	0.039 U

SB0321				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.044 U	0.044 U	0.052 U

SB0374				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	0.5'-1'	1.59	0.042 U	1.59

SB0317				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	1.17	0.04 U	1.17

SB0352				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	3.29	0.044 U	3.29

SB0322				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.041 U	0.041 U	0.048 U

SB0354				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.0606	0.038 U	0.0606

SB0315				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	9.41	0.042 U	9.41

SB0314				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
9/1/2020	0.5'-2'	0.054 U	0.511	0.511

SB0323				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.041 U	0.041 U	0.048 U

SB0313				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
9/15/2020	0.5'-2'	0.041 U	1.12	1.12

SB0355				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.05 U	0.488	0.488

SB0357				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.054 U	0.467	0.467

SB0324				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.043 U	0.043 U	0.05 U

SB0360				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.046 U	0.464	0.464

SB0359				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.037 U	1.11	1.11

SB0320				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/25/2020	0.5'-2'	0.045 U	0.045 U	0.053 U

SB0012				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/10/2020	0.5'-1'	0.045 U	23.9	23.9

SB0325				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.043 U	0.043 U	0.05 U

SB0356				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0.5'-1'	0.053 U	4.86	4.86

SB0326				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.04 U	0.04 U	0.047 U

Legend

- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Soil Sample Exceeds Leachability SCTL (17 mg/kg)
- Extent of Total PCBs above SCTLs

Notes:
Yellow=Exceeds Residential SCTL (0.5 mg/kg)
Orange=Exceeds Industrial SCTL (2.6 mg/kg)
Red=Exceeds Leachability SCTL (17 mg/kg)

mg/kg=milligrams per kilogram
NA=not analyzed
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

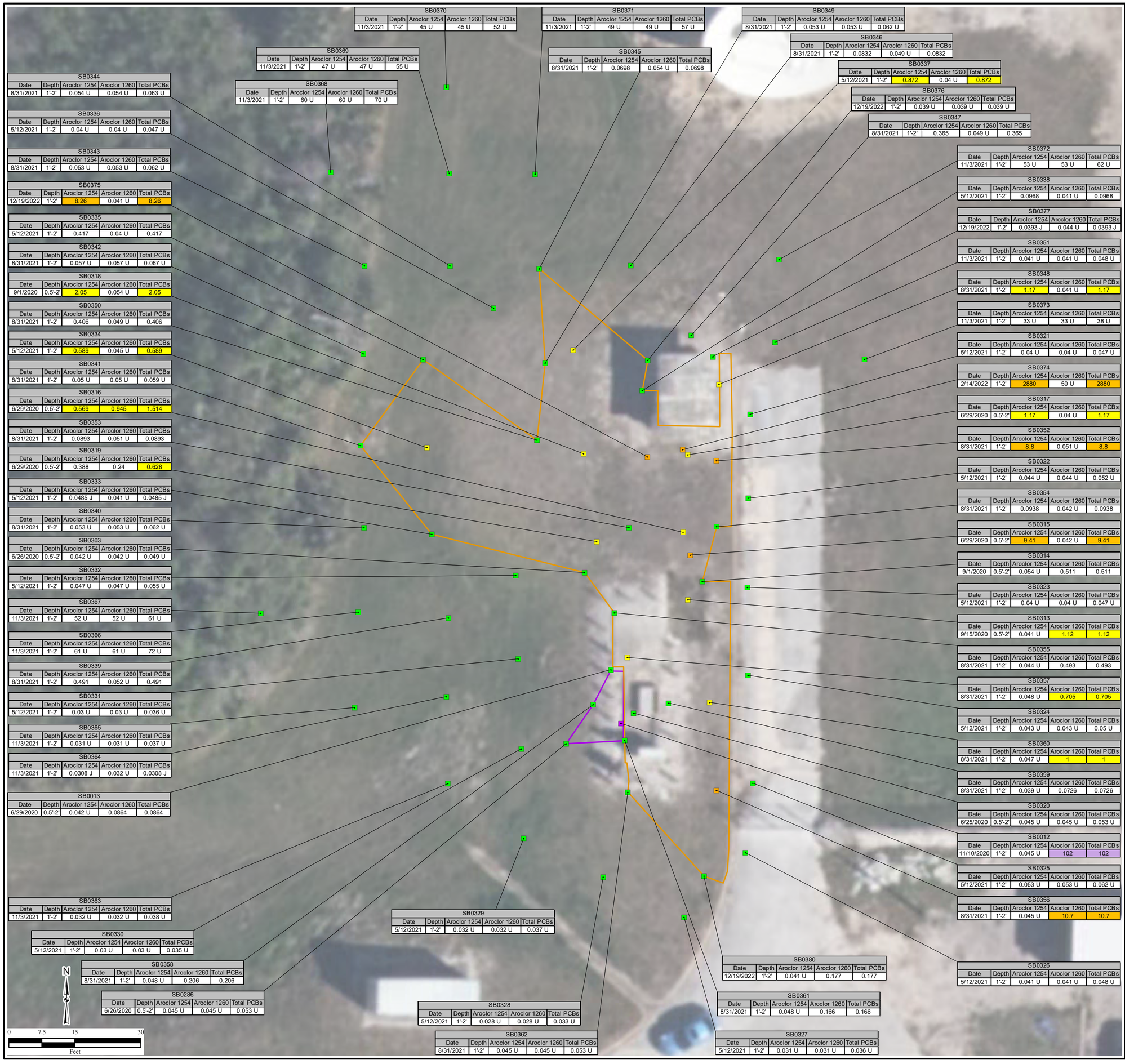
N

0 7.5 15 30
Feet

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(05)Soil_Total_AroclorPCBs(0.5-1).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 6
PRL-227 Location 3
Soil Total PCBs
(1–2 feet)



Legend

- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Soil Sample 50+ ppm PCBs
- Extent of Total PCBs above SCTLs
- Extent of 50+ ppm PCBs

Notes:
Yellow=Exceeds Residential SCTL (0.5 mg/kg)
Orange=Exceeds Industrial SCTL (2.6 mg/kg)
Purple=Exceeds TSCA Criteria (50 mg/kg)

mg/kg=milligrams per kilogram
NA=not analyzed
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(06)Soil_Total_AroclorPCBs(1-2).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 7
PRL-227 Location 3
Soil Total PCBs
(2–3 feet)

SB0349				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.0673	0.05 U	0.0673

SB0337				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.228	0.042 U	0.228

SB0345				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.456	0.05 U	0.456

SB0346				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.047 U	0.047 U	0.055 U

SB0336				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.043 U	0.043 U	0.051 U

SB0376				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.043 U	0.043 U	0.043 U

SB0296				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	10.2	0.039 U	10.2

SB0338				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	1.58	0.04 U	1.58

SB0318				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.709	0.045 U	0.709

SB0375				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	3.58	0.044 U	3.58

SB0335				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.046 U	0.046 U	0.054 U

SB0342				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.059 U	0.059 U	0.07 U

SB0350				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.051 U	0.051 U	0.06 U

SB0334				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.0547	0.043 U	0.0547

SB0341				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.058 U	0.058 U	0.069 U

SB0293				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.157	0.041 U	0.157

SB0353				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.044 U	0.044 U	0.052 U

SB0340				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.054 U	0.054 U	0.063 U

SB0333				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0332				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0367				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.054 U	0.054 U	0.064 U

SB0366				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.066 U	0.066 U	0.078 U

SB0339				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.055 U	0.055 U	0.064 U

SB0331				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.03 U	0.03 U	0.035 U

SB0365				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.037 U	0.037 U	0.044 U

SB0364				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.0279 J	0.034 U	0.0279 J

SB0363				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.036 U	0.036 U	0.042 U

SB0330				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.03 U	0.03 U	0.035 U

SB0358				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.045 U	0.539	0.539

SB0329				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.03 U	0.03 U	0.036 U

SB0328				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.033 U	0.033 U	0.039 U

SB0362				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.043 U	0.043 U	0.051 U

SB0379				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.039 U	0.101	0.101

SB0380				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.043 U	0.0375 J	0.0375 J

SB0361				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.045 U	0.0775	0.0775

SB0327				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.03 U	0.03 U	0.036 U

SB0372				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.032 U	0.032 U	0.038 U

SB0347				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.049 U	0.049 U	0.058 U

SB0377				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.046 U	0.046 U	0.046 U

SB0351				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.044 U	0.044 U	0.051 U

SB0348				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.582	0.047 U	0.582

SB0373				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	2'-3'	0.035 U	0.035 U	0.041 U

SB0321				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.044 U	0.044 U	0.051 U

SB0374				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	2'-3'	0.625	0.043 U	0.625

SB0352				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	1.05	0.048 U	1.05

SB0322				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.041 U	0.041 U	0.048 U

SB0354				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.208	0.497	0.705

SB0292				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.0881	0.038 U	0.0881

SB0323				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0291				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.042 U	0.333	0.333

SB0355				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.049 U	0.049 U	0.058 U

SB0357				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.043 U	0.0853	0.0853

SB0324				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.047 U	0.047 U	0.055 U

SB0360				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.045 U	0.117	0.117

SB0359				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.044 U	0.0548 J	0.0548 J

SB0012				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.043 U	3.26	3.26

SB0325				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.043 U	0.043 U	0.05 U

SB0378				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.046 U	0.32	0.32

SB0356				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	2'-3'	0.047 U	10.1	10.1

SB0326				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	2'-3'	0.045 U	0.045 U	0.053 U

N

0 7.5 15 30

Feet

Legend

- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Extent of Total PCBs above SCTLs

Notes:
Yellow=Exceeds Residential SCTL (0.5 mg/kg)
Orange=Exceeds Industrial SCTL (2.6 mg/kg)

mg/kg=milligrams per kilogram
NA=not analyzed
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(07)Soil_Total_AroclorPCBs(2-3).mxd
2/7/2023 TB
Source: HGL, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

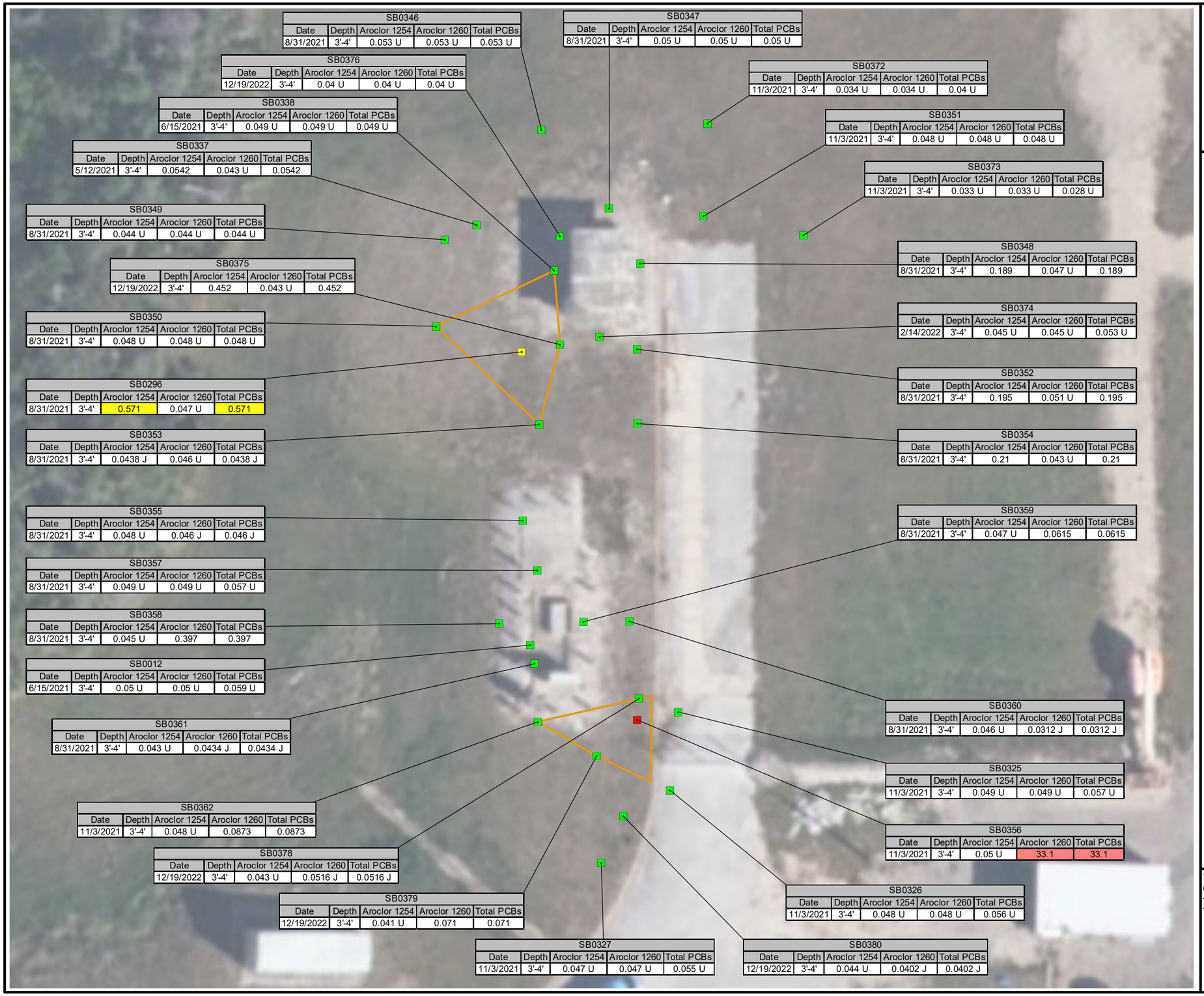


Figure 8
PRL-227 Location 3
Soil Total PCBs
(3-4 feet)

Legend

- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Leachability SCTL (17 mg/kg)
- Extent of Total PCBs above SCTLs

Notes:
Yellow=Exceeds Residential SCTL (0.5 mg/kg)
Red=Exceeds Leachability SCTL (17 mg/kg)

mg/kg=milligrams per kilogram
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

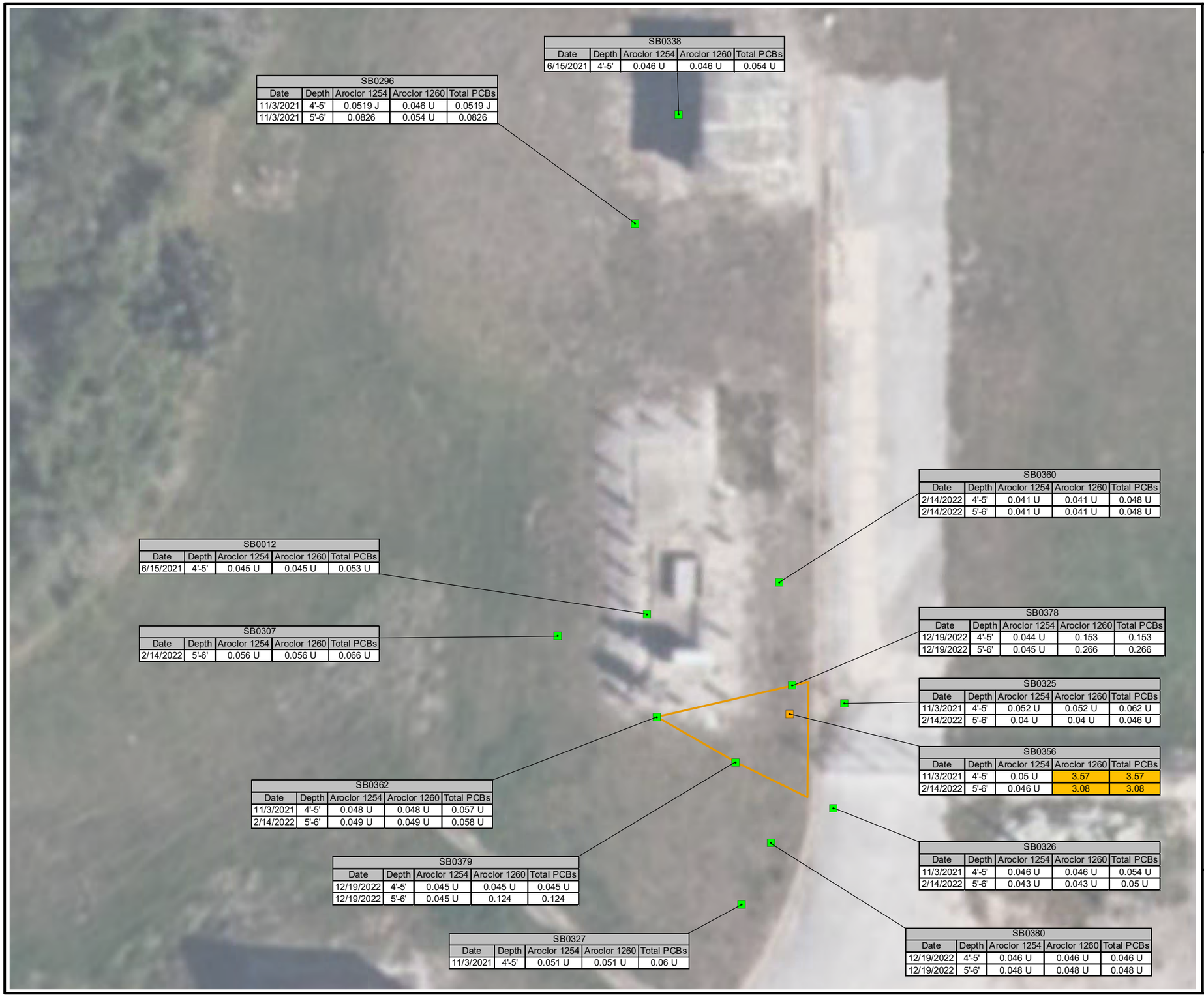
N

0 20 40

Feet

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(08)Soil_Total_AroclorPCBs(3-4).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

Figure 9
PRL-227 Location 3
Soil Total PCBs
(4-6 feet)



SB0296				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.0519 J	0.046 U	0.0519 J
11/3/2021	5'-6'	0.0826	0.054 U	0.0826

SB0338				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/15/2021	4'-5'	0.046 U	0.046 U	0.054 U

SB0360				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	4'-5'	0.041 U	0.041 U	0.048 U
2/14/2022	5'-6'	0.041 U	0.041 U	0.048 U

SB0012				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/15/2021	4'-5'	0.045 U	0.045 U	0.053 U

SB0307				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	5'-6'	0.056 U	0.056 U	0.066 U

SB0378				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	4'-5'	0.044 U	0.153	0.153
12/19/2022	5'-6'	0.045 U	0.266	0.266

SB0325				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.052 U	0.052 U	0.062 U
2/14/2022	5'-6'	0.04 U	0.04 U	0.046 U

SB0356				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.05 U	3.57	3.57
2/14/2022	5'-6'	0.046 U	3.08	3.08

SB0362				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.048 U	0.048 U	0.057 U
2/14/2022	5'-6'	0.049 U	0.049 U	0.058 U

SB0379				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	4'-5'	0.045 U	0.045 U	0.045 U
12/19/2022	5'-6'	0.045 U	0.124	0.124

SB0326				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.046 U	0.046 U	0.054 U
2/14/2022	5'-6'	0.043 U	0.043 U	0.05 U

SB0327				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	4'-5'	0.051 U	0.051 U	0.06 U

SB0380				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	4'-5'	0.046 U	0.046 U	0.046 U
12/19/2022	5'-6'	0.048 U	0.048 U	0.048 U

Legend

- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Extent of Total PCBs above SCTLs

Notes:
Orange=Exceeds Industrial SCTL (2.6 mg/kg)

mg/kg=milligrams per kilogram
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

N

0 15 30

Feet

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(09)Soil_Total_AroclorPCBs(4-6).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

Figure 10
PRL-227 Location 3
Soil Total PCBs
(>6 feet)

SB0357				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	9'-10'	0.056 U	0.056 U	0.065 U

SB0012				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	9'-10'	0.041 U	0.041 U	0.049 U
2/14/2022	10'-11'	0.046 U	0.046 U	0.054 U
2/14/2022	19'-20'	0.046 U	0.046 U	0.055 U

SB0360				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	6'-7'	0.039 U	0.039 U	0.046 U
2/14/2022	7'-8'	0.043 U	0.043 U	0.05 U

SB0378				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	6'-7'	0.046 U	0.151	0.151

SB0325				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	6'-7'	0.047 U	0.047 U	0.055 U
2/14/2022	7'-8'	0.047 U	0.047 U	0.055 U

SB0356				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	6'-7'	0.039 U	0.039 U	0.046 U
2/14/2022	7'-8'	0.041 U	0.041 U	0.048 U

SB0362				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	6'-7'	0.045 U	0.045 U	0.053 U
2/14/2022	7'-8'	0.039 U	0.039 U	0.045 U

SB0379				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	6'-7'	0.04 U	0.42	0.42

SB0326				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	6'-7'	0.043 U	0.043 U	0.051 U
2/14/2022	7'-8'	0.048 U	0.048 U	0.056 U

SB0380				
Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	6'-7'	0.043 U	0.043 U	0.043 U

Legend

Soil Sample Below Residential SCTL (0.5 mg/kg)

Notes:
mg/kg=milligrams per kilogram
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level
U=not detected

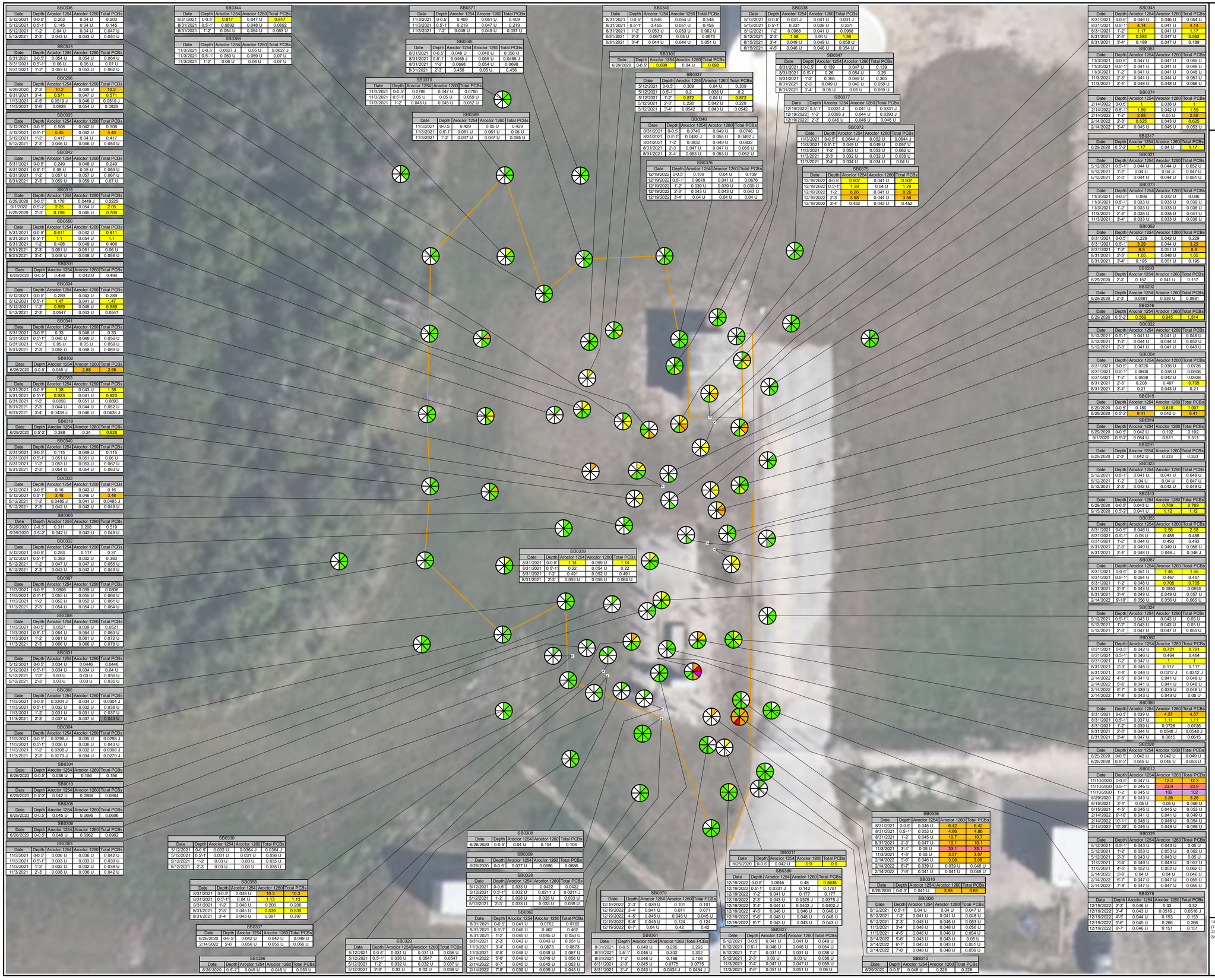
N

0 15 30

Feet

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(10)Soil_Total_AroclorPCBs(6-).mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

Figure 11
PRL-227 Location 3
Soil Total PCBs
(All Depths)



SB0336

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.203	0.047 U	0.203
5/12/2021	0.5'-1'	0.145	0.04 U	0.145
5/12/2021	1'-2'	0.04 U	0.04 U	0.047 U
5/12/2021	2'-3'	0.043 U	0.043 U	0.051 U

SB0343

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.054 U	0.054 U	0.064 U
8/31/2021	0.5'-1'	0.06 U	0.06 U	0.07 U
8/31/2021	1'-2'	0.053 U	0.053 U	0.062 U

SB0296

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	10.2	0.039 U	10.2
8/31/2021	3'-4'	0.571	0.047 U	0.571
11/3/2021	4'-5'	0.0519 J	0.046 U	0.0519 J
11/3/2021	5'-6'	0.0826	0.054 U	0.0826

SB0335

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.508	0.042 U	0.508
5/12/2021	0.5'-1'	5.45	0.042 U	5.45
5/12/2021	1'-2'	0.417	0.04 U	0.417
5/12/2021	2'-3'	0.046 U	0.046 U	0.054 U

SB0342

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.249	0.048 U	0.249
8/31/2021	0.5'-1'	0.05 U	0.05 U	0.059 U
8/31/2021	1'-2'	0.057 U	0.057 U	0.067 U
8/31/2021	2'-3'	0.059 U	0.059 U	0.07 U

SB0318

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.178	0.0449 J	0.2229
9/1/2020	0.5'-2'	2.05	0.054 U	2.05
6/29/2020	2'-3'	0.709	0.045 U	0.709

SB0355

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.611	0.042 U	0.611
8/31/2021	0.5'-1'	1.1	0.054 U	1.1
8/31/2021	1'-2'	0.406	0.049 U	0.406
8/31/2021	2'-3'	0.051 U	0.051 U	0.06 U
8/31/2021	3'-4'	0.048 U	0.048 U	0.056 U

SB0301

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.498	0.042 U	0.498

SB0334

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.289	0.043 U	0.289
5/12/2021	0.5'-1'	1.47	0.041 U	1.47
5/12/2021	1'-2'	0.589	0.045 U	0.589
5/12/2021	2'-3'	0.0547	0.043 U	0.0547

SB0341

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.33	0.048 U	0.33
8/31/2021	0.5'-1'	0.048 U	0.048 U	0.056 U
8/31/2021	1'-2'	0.05 U	0.05 U	0.059 U
8/31/2021	2'-3'	0.058 U	0.058 U	0.069 U

SB0302

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.045 U	2.65	2.65

SB0353

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	1.38	0.043 U	1.38
8/31/2021	0.5'-1'	0.923	0.041 U	0.923
8/31/2021	1'-2'	0.0893	0.051 U	0.0893
8/31/2021	2'-3'	0.044 U	0.044 U	0.052 U
8/31/2021	3'-4'	0.0438 J	0.046 U	0.0438 J

SB0319

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.388	0.24	0.628

SB0340

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.115	0.049 U	0.115
8/31/2021	0.5'-1'	0.051 U	0.051 U	0.06 U
8/31/2021	1'-2'	0.053 U	0.053 U	0.062 U
8/31/2021	2'-3'	0.054 U	0.054 U	0.063 U

SB0333

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.16	0.043 U	0.16
5/12/2021	0.5'-1'	3.48	0.046 U	3.48
5/12/2021	1'-2'	0.0485 J	0.041 U	0.0485 J
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0303

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.311	0.208	0.519
6/26/2020	0.5'-2'	0.042 U	0.042 U	0.049 U

SB0332

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.253	0.117	0.37
5/12/2021	0.5'-1'	0.383	0.032 U	0.383
5/12/2021	1'-2'	0.047 U	0.047 U	0.055 U
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0367

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0806	0.059 U	0.0806
11/3/2021	0.5'-1'	0.055 U	0.055 U	0.064 U
11/3/2021	1'-2'	0.052 U	0.052 U	0.061 U
11/3/2021	2'-3'	0.054 U	0.054 U	0.064 U

SB0366

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0521	0.039 U	0.0521
11/3/2021	0.5'-1'	0.054 U	0.054 U	0.063 U
11/3/2021	1'-2'	0.061 U	0.061 U	0.072 U
11/3/2021	2'-3'	0.066 U	0.066 U	0.078 U

SB0331

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.034 U	0.0446 J	0.0446 J
5/12/2021	0.5'-1'	0.034 U	0.034 U	0.04 U
5/12/2021	1'-2'	0.03 U	0.03 U	0.036 U
5/12/2021	2'-3'	0.03 U	0.03 U	0.035 U

SB0365

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0304 J	0.034 U	0.0304 J
11/3/2021	0.5'-1'	0.032 U	0.032 U	0.038 U
11/3/2021	1'-2'	0.031 U	0.031 U	0.037 U
11/3/2021	2'-3'	0.037 U	0.037 U	0.044 U

SB0364

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0298 J	0.035 U	0.0298 J
11/3/2021	0.5'-1'	0.036 U	0.036 U	0.043 U
11/3/2021	1'-2'	0.0308 J	0.032 U	0.0308 J
11/3/2021	2'-3'	0.0279 J	0.034 U	0.0279 J

SB0304

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.038 U	0.156	0.156

SB0013

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.042 U	0.0864	0.0864

SB0305

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.045 U	0.0696	0.0696

SB0306

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.048 U	0.0962	0.0962

SB0363

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.036 U	0.048 U	0.042 U
11/3/2021	0.5'-1'	0.033 U	0.033 U	0.039 U
11/3/2021	1'-2'	0.032 U	0.032 U	0.038 U
11/3/2021	2'-3'	0.036 U	0.036 U	0.042 U

SB0344

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.817	0.047 U	0.817
8/31/2021	0.5'-1'	0.0892	0.048 U	0.0892
8/31/2021	1'-2'	0.054 U	0.054 U	0.063 U

SB0368

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0627 J	0.05 U	0.0627 J
11/3/2021	0.5'-1'	0.059 U	0.059 U	0.07 U
11/3/2021	1'-2'	0.06 U	0.06 U	0.07 U

SB0370

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0786	0.047 U	0.0786
11/3/2021	0.5'-1'	0.05 U	0.05 U	0.059 U
11/3/2021	1'-2'	0.045 U	0.045 U	0.052 U

SB0369

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.429	0.05 U	0.429
11/3/2021	0.5'-1'	0.051 U	0.051 U	0.06 U
11/3/2021	1'-2'	0.047 U	0.047 U	0.055 U

SB0371

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.409	0.051 U	0.409
11/3/2021	0.5'-1'	0.219	0.047 U	0.219
11/3/2021	1'-2'	0.049 U	0.049 U	0.057 U

SB0345

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.048 U	0.048 U	0.056 U
8/31/2021	0.5'-1'	0.0465 J	0.055 U	0.0465 J
8/31/2021	1'-2'	0.0698	0.054 U	0.0698
8/31/2021	2'-3'	0.456	0.05 U	0.456

SB0349

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.545	0.054 U	0.545
8/31/2021	0.5'-1'	0.455	0.051 U	0.455
8/31/2021	1'-2'	0.053 U	0.053 U	0.062 U
8/31/2021	2'-3'	0.0673	0.05 U	0.0673
8/31/2021	3'-4'	0.044 U	0.044 U	0.051 U

SB0300

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.698	0.04 U	0.698

SB0337

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.309	0.04 U	0.309
5/12/2021	0.5'-1'	0.2	0.038 U	0.2
5/12/2021	1'-2'	0.872	0.04 U	0.872
5/12/2021	2'-3'	0.228	0.042 U	0.228
5/12/2021	3'-4'	0.0542	0.043 U	0.0542

SB0346

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.0746	0.049 U	0.0746
8/31/2021	0.5'-1'	0.0492 J	0.055 U	0.0492 J
8/31/2021	1'-2'	0.0832	0.049 U	0.0832
8/31/2021	2'-3'	0.047 U	0.047 U	0.055 U
8/31/2021	3'-4'	0.053 U	0.053 U	0.062 U

SB0376

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0-0.5'	0.109	0.04 U	0.109
12/19/2022	0.5'-1'	0.0678	0.041 U	0.0678
12/19/2022	1'-2'	0.039 U	0.039 U	0.039 U
12/19/2022	2'-3'	0.043 U	0.043 U	0.043 U
12/19/2022	3'-4'	0.04 U	0.04 U	0.04 U

SB0338

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.031 J	0.041 U	0.031 J
5/12/2021	0.5'-1'	0.231	0.038 U	0.231
5/12/2021	1'-2'	0.0968	0.041 U	0.0968
5/12/2021	2'-3'	1.58	0.04 U	1.58
6/15/2021	3'-4'	0.049 U	0.049 U	0.058 U
6/15/2021	4'-5'	0.046 U	0.046 U	0.054 U

SB0347

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.139	0.047 U	0.139
8/31/2021	0.5'-1'	0.26	0.054 U	0.26
8/31/2021	1'-2'	0.365	0.049 U	0.365
8/31/2021	2'-3'	0.049 U	0.049 U	0.058 U
8/31/2021	3'-4'	0.05 U	0.05 U	0.059 U

SB0377

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0.5'-1'	0.0331 J	0.041 U	0.0331 J
12/19/2022	1'-2'	0.0393 J	0.044 U	0.0393 J
12/19/2022	2'-3'	0.046 U	0.046 U	0.046 U

SB0372

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.0644 J	0.052 U	0.0644 J
11/3/2021	0.5'-1'	0.049 U	0.049 U	0.057 U
11/3/2021	1'-2'	0.053 U	0.053 U	0.062 U
11/3/2021	2'-3'	0.032 U	0.032 U	0.038 U
11/3/2021	3'-4'	0.034 U	0.034 U	0.04 U

SB0375

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	0-0.5'	0.507	0.041 U	0.507
12/19/2022	0.5'-1'	1.29	0.04 U	1.29
12/19/2022	1'-2'	8.26	0.041 U	8.26
12/19/2022	2'-3'	3.58	0.044 U	3.58
12/19/2022	3'-4'	0.452	0.043 U	0.452

SB0348

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.048 U	0.046 U	0.054 U
8/31/2021	0.5'-1'	4.14	0.041 U	4.14
8/31/2021	1'-2'	1.17	0.041 U	1.17
8/31/2021	2'-3'	0.582	0.047 U	0.582
8/31/2021	3'-4'	0.189	0.047 U	0.189

SB0351

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.047 U	0.047 U	0.055 U
11/3/2021	0.5'-1'	0.041 U	0.041 U	0.048 U
11/3/2021	1'-2'	0.041 U	0.041 U	0.048 U
11/3/2021	2'-3'	0.044 U	0.044 U	0.051 U
11/3/2021	3'-4'	0.048 U	0.048 U	0.056 U

SB0374

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
2/14/2022	0-0.5'	1	0.038 U	1
2/14/2022	0.5'-1'	1.59	0.042 U	1.59
2/14/2022	1'-2'	2.88	0.05 U	2.88
2/14/2022	2'-3'	0.625	0.043 U	0.625
2/14/2022	3'-4'	0.045 U	0.045 U	0.053 U

SB0317

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	1.17	0.04 U	1.17

SB0321

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.044 U	0.044 U	0.052 U
5/12/2021	1'-2'	0.04 U	0.04 U	0.047 U
5/12/2021	2'-3'	0.044 U	0.044 U	0.051 U

SB0373

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/3/2021	0-0.5'	0.086	0.032 U	0.086
11/3/2021	0.5'-1'	0.033 U	0.033 U	0.039 U
11/3/2021	1'-2'	0.033 U	0.033 U	0.038 U
11/3/2021	2'-3'	0.035 U	0.035 U	0.041 U
11/3/2021	3'-4'	0.033 U	0.033 U	0.038 U

SB0352

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.229	0.042 U	0.229
8/31/2021	0.5'-1'	3.29	0.044 U	3.29
8/31/2021	1'-2'	8.8	0.051 U	8.8
8/31/2021	2'-3'	1.05	0.048 U	1.05
8/31/2021	3'-4'	0.195	0.051 U	0.195

SB0293

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.157	0.041 U	0.157

SB0292

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.0881	0.038 U	0.0881

SB0316

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0.5'-2'	0.569	0.945	1.514

SB0322

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.041 U	0.041 U	0.048 U
5/12/2021	1'-2'	0.044 U	0.044 U	0.052 U
5/12/2021	2'-3'	0.041 U	0.041 U	0.048 U

SB0354

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.0726	0.036 U	0.0726
8/31/2021	0.5'-1'	0.0606	0.038 U	0.0606
8/31/2021	1'-2'	0.0938	0.042 U	0.0938
8/31/2021	2'-3'	0.208	0.497	0.705
8/31/2021	3'-4'	0.21	0.043 U	0.21

SB0315

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.189	0.818	1.007
6/29/2020	0.5'-2'	9.41	0.042 U	9.41

SB0314

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.042 U	0.192	0.192
9/1/2020	0.5'-2'	0.054 U	0.511	0.511

SB0291

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	2'-3'	0.042 U	0.333	0.333

SB0323

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.041 U	0.041 U	0.048 U
5/12/2021	1'-2'	0.04 U	0.04 U	0.047 U
5/12/2021	2'-3'	0.042 U	0.042 U	0.049 U

SB0313

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/29/2020	0-0.5'	0.043 U	0.769	0.769
9/15/2020	0.5'-2'	0.041 U	1.12	1.12

SB0355

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.046 U	2.58	2.58
8/31/2021	0.5'-1'	0.05 U	0.488	0.488
8/31/2021	1'-2'	0.044 U	0.493	0.493
8/31/2021	2'-3'	0.049 U	0.049 U	0.058 U
8/31/2021	3'-4'	0.048 U	0.046 J	0.046 J

SB0357

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.051 U	1.45	1.45
8/31/2021	0.5'-1'	0.054 U	0.467	0.467
8/31/2021	1'-2'	0.048 U	0.705	0.705
8/31/2021	2'-3'	0.043 U	0.0853	0.0853
8/31/2021	3'-4'	0.049 U	0.049 U	0.057 U
2/14/2022	9'-10'	0.056 U	0.056 U	0.065 U

SB0324

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.043 U	0.043 U	0.05 U
5/12/2021	1'-2'	0.043 U	0.043 U	0.05 U
5/12/2021	2'-3'	0.047 U	0.047 U	0.055 U

SB0360

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.042 U	0.721	0.721
8/31/2021	0.5'-1'	0.046 U	0.464	0.464
8/31/2021	1'-2'	0.047 U	1	1
8/31/2021	2'-3'	0.045 U	0.117	0.117
8/31/2021	3'-4'	0.046 U	0.0312 J	0.0312 J
2/14/2022	4'-5'	0.041 U	0.041 U	0.048 U
2/14/2022	5'-6'	0.041 U	0.041 U	0.048 U
2/14/2022	6'-7'	0.039 U	0.039 U	0.046 U
2/14/2022	7'-8'	0.043 U	0.043 U	0.05 U

SB0359

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.039 U	4.57	4.57
8/31/2021	0.5'-1'	0.037 U	1.11	1.11
8/31/2021	1'-2'	0.039 U	0.0726	0.0726
8/31/2021	2'-3'	0.044 U	0.0548 J	0.0548 J
8/31/2021	3'-4'	0.047 U	0.0615	0.0615

SB0320

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/25/2020	0-0.5'	0.042 U	0.449 U	0.449 U
6/25/2020	0.5'-2'	0.045 U	0.045 U	0.053 U

SB0012

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
11/10/2020	0-0.5'	0.047 U	12.3	12.3
11/10/2020	0.5'-1'	0.045 U	23.9	23.9
11/10/2020	1'-2'	0.045 U	102	102
6/29/2020	2'-3'	0.043 U	3.26	3.26
6/15/2021	3'-4'	0.05 U	0.05 U	0.059 U
6/15/2021	4'-5'	0.045 U	0.045 U	0.053 U
2/14/2022	9'-10'	0.041 U	0.041 U	0.049 U
2/14/2022	10'-11'	0.046 U	0.046 U	0.054 U
2/14/2022	19'-20'	0.046 U	0.046 U	0.055 U

SB0325

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0.5'-1'	0.043 U	0.043 U	0.05 U
5/12/2021	1'-2'	0.053 U	0.053 U	0.062 U
5/12/2021	2'-3'	0.043 U	0.043 U	0.05 U
11/3/2021	3'-4'	0.049 U	0.049 U	0.057 U
11/3/2021	4'-5'	0.052 U	0.052 U	0.062 U
2/14/2022	5'-6'	0.04 U	0.04 U	0.046 U
2/14/2022	6'-7'	0.047 U	0.047 U	0.055 U
2/14/2022	7'-8'	0.047 U	0.047 U	0.055 U

SB0378

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.046 U	0.32	0.32
12/19/2022	3'-4'	0.043 U	0.0516 J	0.0516 J
12/19/2022	4'-5'	0.044 U	0.153	0.153
12/19/2022	5'-6'	0.045 U	0.266	0.266
12/19/2022	6'-7'	0.046 U	0.151	0.151

SB0339

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	1.14	0.059 U	1.14
8/31/2021	0.5'-1'	0.22	0.054 U	0.22
8/31/2021	1'-2'	0.491	0.052 U	0.491
8/31/2021	2'-3'	0.055 U	0.055 U	0.064 U

SB0330

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.032 U	0.0364 J	0.0364 J
5/12/2021	0.5'-1'	0.031 U	0.031 U	0.036 U
5/12/2021	1'-2'	0.03 U	0.03 U	0.035 U
5/12/2021	2'-3'	0.03 U	0.03 U	0.035 U

SB0358

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.048 U	10.3	10.3
8/31/2021	0.5'-1'	0.04 U	1.13	1.13
8/31/2021	1'-2'	0.048 U	0.206	0.206
8/31/2021	2'-3'	0.045 U	0.539	0.539
8/31/2021	3'-4'	0.045 U	0.397	0.397

SB0307

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.042 U	0.042 U	0.049 U
2/14/2022	5'-6'	0.056 U	0.056 U	0.066 U

SB0286

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0.5'-2'	0.045 U	0.045 U	0.053 U

SB0329

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.031 U	0.031 U	0.036 U
5/12/2021	0.5'-1'	0.036 U	0.0547	0.0547
5/12/2021	1'-2'	0.032 U	0.032 U	0.037 U
5/12/2021	2'-3'	0.03 U	0.03 U	0.036 U

SB0308

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.04 U	0.104	0.104

SB0309

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
6/26/2020	0-0.5'	0.037 U	0.0686	0.0686

SB0328

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
5/12/2021	0-0.5'	0.033 U	0.0422	0.0422
5/12/2021	0.5'-1'	0.032 U	0.0211 J	0.0211 J
5/12/2021	1'-2'	0.028 U	0.028 U	0.033 U
5/12/2021	2'-3'	0.033 U	0.033 U	0.039 U

SB0362

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.041 U	0.0762	0.0762
8/31/2021	0.5'-1'	0.046 U	0.462	0.462
8/31/2021	1'-2'	0.045 U	0.045 U	0.053 U
8/31/2021	2'-3'	0.043 U	0.043 U	0.051 U
11/3/2021	3'-4'	0.048 U	0.0873	0.0873
11/3/2021	4'-5'	0.048 U	0.048 U	0.057 U
2/14/2022	5'-6'	0.049 U	0.049 U	0.058 U
2/14/2022	6'-7'	0.045 U	0.045 U	0.053 U
2/14/2022	7'-8'	0.039 U	0.039 U	0.045 U

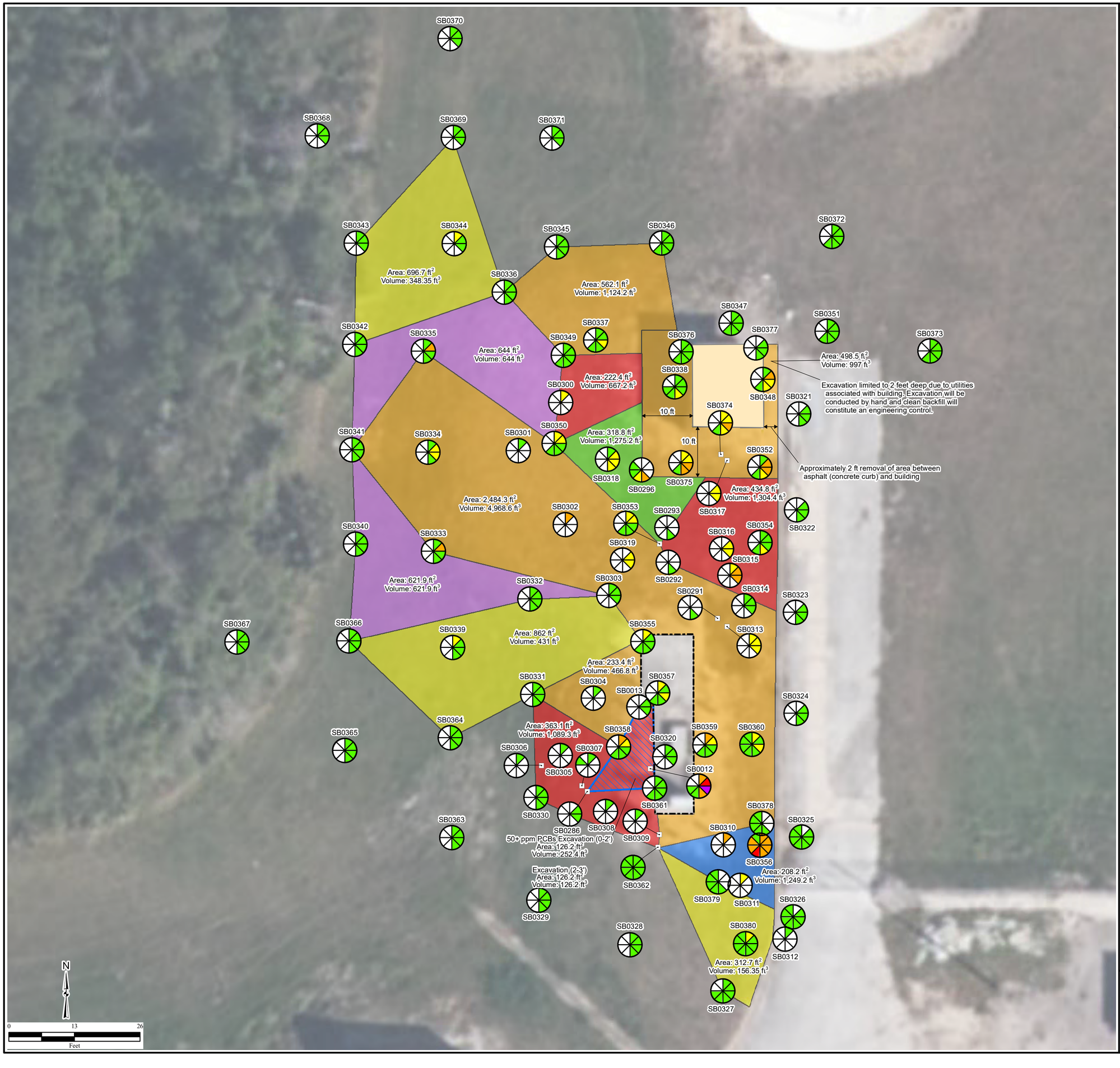
SB0379

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
12/19/2022	2'-3'	0.039 U	0.101	0.101
12/19/2022	3'-4'	0.041 U	0.071	0.071
12/19/2022	4'-5'	0.045 U	0.045 U	0.045 U
12/19/2022	5'-6'	0.045 U	0.124	0.124
12/19/2022	6'-7'	0.04 U	0.42	0.42

SB0361

Date	Depth	Aroclor 1254	Aroclor 1260	Total PCBs
8/31/2021	0-0.5'	0.049 U	0.295	0.295
8/31/2021	0.5'-1'	0.046 U	0.302	0.302
8/31/2021	1'-2'	0.048 U	0.166	0.166
8/31/

Figure 12
PRL-227a
Proposed Excavation Areas



Legend

- Soil Sample
- 6'-7', 0-0.5', 5'-6', 0.5'-1', 4'-5', 1'-2', 3'-4', 2'-3'
- Soil Sample Not Collected
- Soil Sample Below Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Residential SCTL (0.5 mg/kg)
- Soil Sample Exceeds Industrial SCTL (2.6 mg/kg)
- Soil Sample Exceeds Leachability SCTL (17 mg/kg)
- Soil Sample 50+ ppm PCBs
- Proposed 50+ ppm PCBs Excavation Area (0-2')
- Proposed Excavation Area (0-0.5')
- Proposed Excavation Area (0-1')
- Proposed Excavation Area (0-2')
- Proposed Excavation Area (0-3')
- Proposed Excavation Area (0-4')
- Proposed Excavation Area (0-6')
- Concrete Pad
- Building

Notes:
mg/kg=milligrams per kilogram
PCBs=polychlorinated biphenyls
PRL=potential release location
SCTL=soil cleanup target level

\\srv-gst-01\hglgis\KSC_NS1002\PRL_227\CSRA\(12)Prop_Excav_Areas.mxd
2/27/2023 TB
Source: HGL, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

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APPENDIX A

KENNEDY SPACE CENTER REMEDIATION TEAM MEETING MINUTES

Meeting Minutes Summary Report

Meeting Start Date:	Meeting ID:	Minute ID:	Presenter:	PRL / SWMU:
09/10/2015	180	12	Mrdjenovich, Tim	STAND ALONE ELECTRICAL EQUIPMENT (PRL 227)

Topic:

Stand-alone electrical equipment (PRL 227)

Discussion:

Site consists of electric transformers pad-mounted, electrical load break switches, electrical vacuum fault interrupters, and electrical transformers pole-mounted. This assessment is divided into three areas, since the KSC Phase 1 Site Assessments were also grouped into the three areas as follows:
• Area 1: Industrial, Hypergol Maintenance Facility (HMF), Visitor Center, Ransom Road Areas,
• Area 2: Launch Complex 39 (LC39) Area (Pads, Vehicle Assembly Building (VAB) and Shuttle Landing Facility (SLF)), and
• Area 3: Outlying Areas (Area north of Beach Road, KARS Park).
There are 87 electrical transformers, vacuum fault interrupters and load break switches located throughout KSC that have not been included in either previous site assessments or sampling activities. Of these, 63 warrant further investigation and Confirmatory Sampling is recommended. Some of the locations contain more than one piece of electrical equipment on a concrete pad or in a group, for a total of 49 LOCs. Electronic and paper records of previous PRLs SWMUs were reviewed to determine inclusion of electrical equipment in previous site assessments or sampling activities. Geographic Information System (GIS) locations and Engineering documents of electrical equipment were reviewed and compared to those areas already identified. Site visits to all areas of KSC were conducted to visually identify and confirm the types and location of electrical equipment. Historically, electrical transformer oil contained PCBs as a component. Although PCB oil was phased out during the late 1970s to early 1980s, it was reported by electrical personnel, interviewed during previous SWMU Assessments, that PCB oil was available and utilized after this timeframe. Additionally, during the phase out of PCB oils, electrical equipment was retro-fitted with more environmentally friendly commodities (i.e. mineral oil). Subsequent sampling of some of the transformers revealed the continued presence of PCBs within the equipment. According to information obtained from Institutional Services Contract (ISC) personnel and previous electrical workers, vacuum fault interrupters and load break switches manufactured or installed after 2000 contain SF6 gas. Additionally, by 2000, all existing vacuum fault interrupters (VFI) and load break switches (LBS) were converted to Sulfur Hexafluoride (SF6) gas. For VFIs and LBSs installed after 2000 that did not replace existing equipment, there are no environmental concerns to soil and/or groundwater and confirmatory sampling is not recommended. In locations where current VFIs and LBSs have been installed as replacements, the potential for historical releases to grade exists and confirmatory sampling is recommended. From 2008 to the present, confirmatory soil sampling was completed at reported releases from electrical equipment to ensure cleanup to SCTLs. For electrical equipment installed after 2008 that did not replace existing equipment, there are no environmental concerns and confirmatory sampling is not recommended. Pole-mounted transformers were included in this report. According to information obtained from ISC personnel, they are designed to operate until failure, and are then replaced. ISC personnel reported failures are typically wire malfunctions that do not result in a release of oil. Records did not indicate releases at any pole-mounted equipment and personnel could not recall any releases to grade. However, interviewees could not confirm that historical releases have not occurred. Based on discussion at the December 2011 KSC Remediation Team meeting regarding sampling at pole mounted transformers and subsequent Decision 1112-D22, single pole-mounted transformers will no longer be sampled, sampling will continue at areas with multiple pole-mounted transformers. For purposes of this SWMU assessment, historical photographs were reviewed for general information on KSC area development, along with associated utilities infrastructure. Since detailed information on each piece of equipment is unable to be discerned in the aerial photographs, these are not included in the presentation. Records of previous investigations and spills were reviewed. None were applicable to the electrical equipment identified in this assessment. Ecological data was not obtained for any of the locations; all of the electrical equipment is located in mowed and maintained or rock/gravel areas and is installed on concrete pads. Areas are mowed and maintained and should not be considered ecological habitat. When confirmatory sampling is implemented, any ecological concerns should be addressed at that time (i.e. gopher tortoise burrows).

Team consensus reached for NFA action for the following: LBS 77, SS 200, LBS 73/LBS 74, SS 170/VFI 16, SS 175, LBS 98, VFI 96/VFI 97, LBS 716, VFI 796, H615 single pole-mounted transformer, G115 single pole-mounted transformer, and KARS single pole-mounted transformer.

For locations that are adjacent to roadways/parking areas, team recommended screening soil against the KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 1 (LBS 42) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 2 (LBS 404) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 3 (LBS 35) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 4 (LBS 34) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 5 (SS 191) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 6 (HMF former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 7 (LBS 28) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 8 (LBS 87) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 9 (LBS 86/LBS 408 and two empty concrete pads) to collect thirteen surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 10 (LBS 78) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 11 (SS 190) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 12 (VFI 21) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 13 (LBS 3) to collect four surface soils samples for TPH and PCB analyses. Soils wi reached at LOC 16 (LBS 46) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 17 (USS 116) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 18 (LBS 85) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 19 (LBS 4) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 20 (LBS 5) to collect four surface soils samples for PCB analysis only based on proximity to tracks. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 21 (SS 153) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 22 (LBS 55) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 23 (SS 148) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 24 (SS 112/LBS 82) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 25 (LBS 52) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 26 (SS 129) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 27 (VFI 99) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 28 (USS 106) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 29 (LBS 730) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 30 (116A/116B) to collect ten locations for asphalt, road base, and surface soil samples for PCB analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values

are applicable.

Team consensus reached at LOC 31 (VFI 709/VFI 708) to collect eight surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 32 (SS 1102/SS 1126/ LBS 713) to collect eight surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 33 (LBS 735/VFI 714/VFI 732) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 34 (LBS 783) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 35 (VFI 776/VFI 777) to collect two locations on the north side of the VFI equipment for asphalt, road base and surface soils samples for PCB analysis only. Two surface soils samples on the south side and one each on the east and west sides for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 36 (VAB former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 37 (SS 785) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 38 (USS 838) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 39 (LC39 former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 40 (VFI 309/SS 1145) to collect seven surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 41 (LBS 791/SS 1134) to collect seven surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 42 (SS 1026) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 43 (LBS 306/SS 1153/SS 1160) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 44 (SS 1109) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 45 (USS 1164) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 46 (LBS 1033) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Team consensus reached at LOC 47 (VFI 797) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 48 (SS 1169) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 49A (KARS double pole-mounted transformers) to collect two surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Team consensus reached at LOC 49B (KARS triple

Goal:	
Present SWMU assessment and obtain consensus on path forward.	
Decision:39	Team consensus reached for NFA action for the following: LBS 77, SS 200, LBS 73/LBS 74, SS 170/VFI 16, SS 175, LBS 98, VFI 96/VFI 97, LBS 716, VFI 796, H615 single pole-mounted transformer, G115 single pole-mounted transformer, and KARS single pole-mounted transformer.
Decision:40	Team consensus reached at LOC 1 (LBS 42) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:41	Team consensus reached at LOC 2 (LBS 404) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:42	Team consensus reached at LOC 3 (LBS 35) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:43	Team consensus reached at LOC 4 (LBS 34) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:44	Team consensus reached at LOC 5 (SS 191) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:45	Team consensus reached at LOC 6 (HMF former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:46	Team consensus reached at LOC 7 (LBS 28) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:47	Team consensus reached at LOC 8 (LBS 87) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:48	Team consensus reached at LOC 9 (LBS 86/LBS 408 and two empty concrete pads) to collect thirteen surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:49	Team consensus reached at LOC 10 (LBS 78) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:50	Team consensus reached at LOC 11 (SS 190) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:51	Team consensus reached at LOC 12 (VFI 21) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:52	Team consensus reached at LOC 13 (LBS 3) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:53	Team consensus reached at LOC 14 (USS 177) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:54	Team consensus reached at LOC 15 (SS 185) to collect two locations for asphalt, road base, and surface soil samples for PCB analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:55	Team consensus reached at LOC 16 (LBS 46) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:56	Team consensus reached at LOC 17 (USS 116) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Decision:57	Team consensus reached at LOC 18 (LBS 85) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:58	Team consensus reached at LOC 19 (LBS 4) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:59	Team consensus reached at LOC 20 (LBS 5) to collect four surface soils samples for PCB analysis only based on proximity to tracks. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:60	Team consensus reached at LOC 21 (SS 153) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:61	Team consensus reached at LOC 22 (LBS 55) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:62	Team consensus reached at LOC 23 (SS 148) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:63	Team consensus reached at LOC 24 (SS 112/LBS 82) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:64	Team consensus reached at LOC 25 (LBS 52) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:65	Team consensus reached at LOC 26 (SS 129) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:66	Team consensus reached at LOC 27 (VFI 99) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:67	Team consensus reached at LOC 28 (USS 106) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:68	Team consensus reached at LOC 29 (LBS 730) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:69	Team consensus reached at LOC 30 (116A/116B) to collect ten locations for asphalt, road base, and surface soil samples for PCB analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:70	Team consensus reached at LOC 31 (VFI 709/VFI 708) to collect eight surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:71	Team consensus reached at LOC 32 (SS 1102/SS 1126/ LBS 713) to collect eight surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:72	Team consensus reached at LOC 33 (LBS 735/VFI 714/VFI 732) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:73	Team consensus reached at LOC 34 (LBS 783) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:74	Team consensus reached at LOC 35 (VFI 776/VFI 777) to collect two locations on the north side of the VFI equipment for asphalt, road base and surface soils samples for PCB analysis only. Two surface soils samples on the south side and one each on the east and west sides for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.

Decision:75	Team consensus reached at LOC 36 (VAB former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:76	Team consensus reached at LOC 37 (SS 785) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:77	Team consensus reached at LOC 38 (USS 838) to collect six surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:78	Team consensus reached at LOC 39 (LC39 former electrical location) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:79	Team consensus reached at LOC 40 (VFI 309/SS 1145) to collect seven surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:80	Team consensus reached at LOC 41 (LBS 791/SS 1134) to collect seven surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:81	Team consensus reached at LOC 42 (SS 1026) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:82	Team consensus reached at LOC 43 (LBS 306/SS 1153/SS 1160) to collect ten surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:83	Team consensus reached at LOC 44 (SS 1109) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:84	Team consensus reached at LOC 45 (USS 1164) to collect four surface soils samples for TPH analysis. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:85	Team consensus reached at LOC 46 (LBS 1033) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Background Parking/Traffic Areas values are applicable.
Decision:86	Team consensus reached at LOC 47 (VFI 797) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:87	Team consensus reached at LOC 48 (SS 1169) to collect four surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:88	Team consensus reached at LOC 49A (KARS double pole-mounted transformers) to collect two surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.
Decision:89	Team consensus reached at LOC 49B (KARS triple pole-mounted transformers) to collect two surface soils samples for TPH and PCB analyses. Soils will be screened against human health criteria and KSC Combined Soil Background values are applicable.

Revision 1 Meeting Minutes for June 6th and 7th, 2019

Attendees:

John Armstrong/FDEP
John Winters/FDEP
Anne Chrest/NASA
Mike Deliz/NASA
Lindsay Morgan/NASA
Dinh Vo/NASA
Ryan O'Meara/NASA
Dan Heggen/NASA
Michelle Moore/KEMCON
Deda Johansen/Jacobs
Patrick Lawler/Jacobs
Craig Kish/Jacobs
Jason Glasgow/Jacobs
Harlan Faircloth/CORE
Jim Langenbach/Geosyntec
Melissa Hensley/Geosyntec
Eric Sager/Geosyntec
Rebecca Daprato/Geosyntec
Mike Burcham/Geosyntec
Olivia Cain/Geosyntec
Audrey Batzer/Geosyntec
Davis Lofton/Geosyntec
Joe Bartlett/Geosyntec
Mark Speranza/Tetra Tech
Chris Pike/Tetra Tech
Mark Jonnet/Tetra Tech
Jen Buel/Tetra Tech
Sarah Damphousse/Tetra Tech
Alex Murphy/Tetra Tech
Chris Neumann/Tetra Tech
Scott Anderson/Tetra Tech (phone)
Krista Sommerfeldt/AECOM
Matt Zenker/AECOM
Richard Smith/HGL
Tim jellett/HGL

1907-M10 Jen Buel/ Tetra Tech

<u>Stand Alone Electrical Equipment (SAEE) (PRL 227)</u>

Goal: Present confirmation sampling results and obtain Team consensus on path forward.

Discussion: The objective of the confirmatory sampling (CS) was to confirm presence or absence of contamination from past/present operations at 49 electrical equipment locations of concern (LOC) across Kennedy Space Center (KSC).

LOC 3 added after ADP sent to team.

Forty-nine electrical equipment areas across KSC grouped into three areas based on geographical location during the SWMU Assessment Report.

- Area 1 – KSC Industrial, Hypergol Maintenance Facility (HMF), KSC Visitor Center, and Ransom Road Areas
- Area 2 – Launch Complex 39 (LC39A) Area, Vehicle Assembly Building (VAB), and the Shuttle Landing Facility (SLF)
- Area 3 – Outlying areas in the northern portion of KSC and Kennedy Athletic, Recreation, and Social (KARS) Park I

KSC Power Distribution System was established in the 1960s with the construction of the first facilities at KSC

- These electrical units are known to have used oils that contain hydrocarbons and/or polychlorinated biphenyls (PCBs).

General sampling protocol for SAEE
Soil sample collected from each side of electrical equipment and adjacent to the pad (if present) at depth of 0 to 0.5 ft bls, as identified in the CS Work Plan.

- Composite sample of asphalt, road base, and soil collected at LOCs 15 and 35, as identified in the CS Work Plan.
- Sporadic light gravel present at some locations of concern (LOC). Sample matrix included small pieces of gravel and soil (mixed in bowl).
- No thick gravel (i.e., 3-inches or more of dense gravel on top of soil) at LOCs during CS sampling or identified in the CS Work Plan.

No PID screening to water table at active transformer LOCs due to energized equipment.
Health and safety restrictions

- No sampling completed below 2-feet within 5-feet of active pads.
- No subslab sampling at active pads.
    - Utility locate equipment interference possible within 5-feet of active pads

Samples analyzed for PCBs and TPH with the following exceptions

- LOCs 21, 23, 28, 44, and 45 analyzed for TPH only (per CS Work Plan).
- Documentation in SAR identify that transformers at these LOCs contained less than 1 ppm of PCBs at the time they were manufactured.
- Installation dates ranging from 2003 to 2006.
- Basket Item presentation in October 2018 reviewed the documentation and decision not to analyze for PCBs at these LOCs. Consensus reached that prior Team decisions remain valid since the transformers contain mineral oil with no PCB content.

Composite samples at LOCs 15 and 35 were not analyzed for TPH due to asphalt.
If PCB SCTL exceedance was confirmed, a sample was collected from the highest PCB concentration and analyzed for SVOCs, with subsequent SVOC delineation if necessary.

Total recoverable petroleum hydrocarbons (TPH) fractionation (MADEP) analysis completed if soil sample exceeded residential and leachability SCTLs.

- Fraction analysis completed at location with highest exceedance.
- Results compared to SCTLs and applied to entire LOC.

No Further Action (NFA) Recommended

- All results less than Soil Cleanup Target Levels (SCTL) or applicable background concentration/reference value
- SCTL exceedance in initial sample was not confirmed with additional sampling or SPLP analysis
- TPH fraction results do not exceed SCTLs.

LOC 30 substation 1116A/1116B is located on the southern side of the Aft Skirt Test facility in an asphalt parking lot. Hazardous operations ongoing and access not allowed due to safety concerns. Sampling will be delayed until operations are complete (tentatively late 2020).

Team consensus reached that CS Report will recommend sampling at a later date due to access/operational constraints.

LOC 33 LBS 735/VFI 714/VFI 732 is located on the eastern side of Contractors Road, west of the Components Refurbishment and Chemical Analysis (CRCA) Facility. This LOC was included as part of the Potential Release Location (PRL) 192 Logistics, LOC 7. CS soil sampling was completed in December 2016. PCBs were not detected and TPH results were less than SCTL. NFA was recommended and a Florida Department of Environmental (FDEP) NFA letter was received dated April 2018.

Team consensus reached that CS Report will indicate LOC 33 was investigated under PRL 192.

Results for samples collected at LOCs 1, 4-15, 17-24, 26, 27, 28, 31, 32, 34-39, 41-49A/B were below SCTLs.

Team consensus reached for NFA for LOCs 1, 4-15, 17-24, 26, 27, 28, 31, 32, 34-39, 41-49A/B.

LOC 2 Load Break Switch (LBS) 404 is located near to former Vertical Processing Facility Building; next to LOC 3. TPH results

were less than SCTLs. PCBs were greater than Residential (R-), Industrial (I-), and Leachability (L-) SCTLs at SB0006. All other locations had PCB results that were less than SCTL. Resampled SB0006 and PCBs were less than SCTLs. Due to the high variability additional samples were collected and PCB results were less than SCTLs. Initial exceedance not confirmed.

Team consensus reached for NFA for LOC 2.

LOC 25 LBS 52 is located at intersection of State Road 3 and Space Commerce Way. TPH results were less than SCTLs. PCBs were greater than R-SCTL at SB0117. Resampled SB0117, PCBs not detected. Initial exceedance not confirmed.

Team consensus reached for NFA for LOC 25.

LOC 40 VFI 309-SS 1145 is located at the intersection of Phillips Parkway and Pad A Road. TPH results were less than SCTLs. PCBs were greater than R-SCTL at SB0205. Resampled SB0205, PCB results less than SCTLs. Initial exceedance not confirmed.

Team consensus reached for NFA for LOC 40.

LOC 3 LBS 35 is located to the west of the former VPF (M7-1469) and was installed in 1994. Initial sampling indicated exceedances of PCBs greater than R-SCTLs, with three locations greater than I-SCTLs. Additional PCB sampling completed to delineate SCTL exceedances, as well as investigate an Synthetic Precipitation Leaching Procedure (SPLP) exceedance via monitoring well installation. Semi-volatile organic compounds (SVOC) at the maximum PCB concentration was less than SCTLs. Delineation of PCBs in soil is not complete. Previous excavations to 0.5 ft BLS were conducted associated with copper and chromium in soil in the area of this LOC as part of VPF.

Is there a “Toxic Substances Control Act (TSCA)” concern (over 50 mg/kg, which requires formal consultation with USEPA)? The initial sample from 0.5 to 2.0 ft BLS at SB0012 was 99 milligrams per kilogram (mg/kg) which is above the trigger point of 50 mg/kg for formal EPA consultation. The resample result at this location and depth was 42 mg/kg which is less than the “TSCA” trigger point.

Additional horizontal and vertical delineation is necessary around this location though.

Team requested deeper samples collected at SB0286 (collect and hold samples below 2 ft BLS).

A monitoring well was installed approximately 5 ft from SB0012 at the top of the water table (5 to 15 ft BLS). PCBs were not detected and method detection limits were less than Groundwater Cleanup Target Levels (GCTL).

Team consensus reached on additional CS sampling as proposed in the June 2019 Advanced Data Package (presented at the meeting) with the addition of deeper samples collected at SB0286 (collect and hold samples below 2 ft BLS).

LOC 16 LBS 46 is located on the southwestern corner of former Base Support Building (M6-0486). The area of the transformer was previously located within asphalt parking area. PCBs and TPH were detected greater than SCTLs. TPH fractionation was conducted at SB0078 and results were less than SCTLs (results applied to all locations with exceedances). PCB exceedance confirmed at SB0078 and delineated (0 to 0.5 ft BLS). Transformer pad is 12-inches thick and subslab sampling is not needed because PCBs are less than SCTLs in 0.5 to 2 ft sample at SB0078. Concrete sample analyzed for PCBs with results less than SCTLs. Carcinogenic polycyclic aromatic hydrocarbons (PAH) were greater than R- and I- SCTLs but were less than Parking Lot/Heavy Traffic Reference Values.

Team consensus reached that Parking Lot/Heavy Traffic Reference Values are applicable at LOC 16.

Team consensus reached that Total Aroclor SCTL exceedances have been delineated at LOC 16.

Team consensus reached to proceed to Interim Measures (IM) Work Plan to address Total Aroclor R-SCTL exceedances from 0 to 0.5 ft BLS at LOC 16.

LOC 29 LBS 730 is located at the southwestern corner of the intersection of Schwartz Road and State Road 3. PCBs were greater than R-SCTLs at SB0134. SVOC analysis at SB0134 was less than

SCTLs. PCB exceedance confirmed at SB0134, 0 to 0.5 ft, (2.1 mg/kg), and 0.5 to 2 ft, (4.3 mg/kg) less than SCTLs. Step outs were collected and delineated horizontally. Concrete sample analyzed for PCBs and results were less than SCTLs.

Team consensus reached to proceed to IM Work Plan at LOC 29 to address Total Aroclor R- and I-SCTL exceedance from 0 to 2 ft BLS. Outage will be coordinated with ISC to collect subslab and deeper samples at SB0134 to confirm depth.

Results: Decision items 1906-D53 to D63

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APPENDIX B

2019 STAND ALONE ELECTRICAL EQUIPMENT, PRL 227 CONFIRMATION SAMPLING REPORT

STAND ALONE ELECTRICAL EQUIPMENT, PRL 227
CONFIRMATORY SAMPLING REPORT,
LOCs 16 AND 29 INTERIM MEASURE WORK PLAN,
AND
LOC 3 SUPPLEMENTAL CONFIRMATORY SAMPLING WORK PLAN
KENNEDY SPACE CENTER, FLORIDA

Prepared for:

National Aeronautics and Space Administration
Kennedy Space Center, Florida

August 2019
Revision 0

Prepared by:

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CONFIRMATORY SAMPLING REPORT
FOR
STAND ALONE ELECTRICAL EQUIPMENT, PRL 227,
INTERIM MEASURE WORK PLAN FOR LOCS 16 AND 29
AND
SUPPLEMENTAL CONFIRMATORY SAMPLING WORK PLAN FOR LOC 3,
AT
KENNEDY SPACE CENTER, FLORIDA

Revision 0

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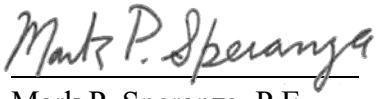
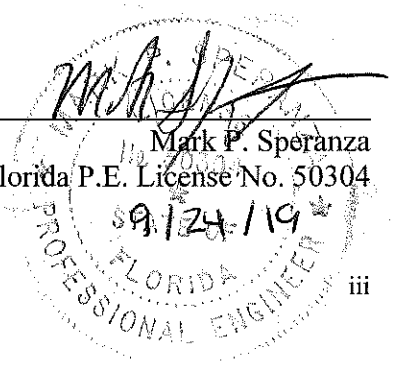
Approved by: 
Mark P. Speranza, P.E.
Tetra Tech, Inc.

August 2019

PROFESSIONAL ENGINEER CERTIFICATION

This Confirmatory Sampling Report for Stand Alone Electrical Equipment, PRL 227, Interim Measure Work Plan for LOCs 16 and 29, and Supplemental Confirmatory Sampling Work Plan for LOC 3, Kennedy Space Center, Florida, dated August 2019, has been prepared by or under the responsible supervision, direction, or control of the Florida-licensed professional engineer whose signature and seal appear below.



Mark P. Speranza
Florida P.E. License No. 50304
9/24/19

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ABBREVIATIONS AND ACRONYMS

ADP	advanced data package
bls	below land surface
COC	contaminant of concern
CS	Confirmatory Sampling
CSB	Combined Soil Background
CSR	Confirmatory Sampling Report
CSWP	Confirmatory Sampling Work Plan
CTL	Cleanup Target Level
DPD	Decision Process Document
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organics
GCTL	Groundwater Cleanup Target Level
GPS	global positioning system
HMF	Hypergol Maintenance Facility
ID	inside diameter
IDIQ	Indefinite Delivery Indefinite Quantity
IM	interim measure
IMWP	Interim Measure Work Plan
KARS	Kennedy Athletic, Recreation, and Social
KSC	Kennedy Space Center
KSCRT	Kennedy Space Center Remediation Team
LBS	Load Break Switch
LC39	Launch Complex 39
LOC	Location of Concern
MADEP	Massachusetts Department of Environmental Protection
MDL	Method Detection Limit
NASA	National Aeronautics and Space Administration
NFA	no further action
OVA	organic vapor analyzer

PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PID	photoionization detector
ppm	part per million
PQL	Practical Quantitation Limit
P/T	Parking and Heavy Traffic
PRL	Potential Release Location
QC	quality control
RCRA	Resource Conservation and Recovery Act
SA	SWMU Assessment
SAEE	Stand Alone Electrical Equipment
SAP	Sampling and Analysis Plan
SAR	SWMU Assessment Report
SCTL	Soil Cleanup Target Level
SLF	Shuttle Landing Facility
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
SS	substation
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TRPH	total recoverable petroleum hydrocarbons
µg/L	microgram per liter
USS	universal substation
VAB	Vehicle Assembly Building
VFI	Vacuum Fault Interrupters
VOC	volatile organic compound
VPF	Vertical Processing Facility

EXECUTIVE SUMMARY

This document discusses the Confirmatory Sampling (CS) activities performed at Stand Alone Electrical Equipment (SAEE), Potential Release Location (PRL) 227, at Kennedy Space Center (KSC), Florida. This document also includes the Interim Measure Work Plan (IMWP) for SAEE Locations of Concern (LOCs) 16 and 29 and a Supplemental CS Work Plan for LOC 3. This CS Report (CSR) was prepared by Tetra Tech, Inc., for the National Aeronautics and Space Administration under Task Order 24 of Indefinite Delivery Indefinite Quantity Contract NNK12CA15B. The objective of CS at SAEE was to confirm the presence or absence of contamination resulting from past and present operations at the site. Forty-Nine Locations of Concern (LOCs) were identified in the September 2015 Solid Waste Management Unit Assessment Report/CS Work Plan for the PRL.

The CS investigation included collection of 347 soil samples, 7 concrete samples, 1 asphalt sample, 1 road base sample, 4 composite samples of asphalt, road base, and soil, and installation of one monitoring well and collection of one groundwater sample for laboratory analysis. Forty-one of the 49 LOCs had soil sample concentrations less than Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs), including LOCs 1, 4 to 15, 17 to 24, 26 to 28, 31, 32, 34 to 39, and 41 to 49. Three LOCs (LOCs 2, 25, and 40) had one soil sample each with concentrations greater than SCTLs; however, additional CS sampling at these LOCs did not confirm the exceedances. CS samples at LOC 30 could not be collected due to operational constraints, and sample collection is delayed until operations at the Aft Skirt Test facility are complete. CS samples at LOC 33 were collected in 2016 as part of the PRL192, Logistics Facility, CS, and FDEP approved no further action (NFA) for this LOC based on the results of this sampling.

Analytes were detected in soil samples at concentrations greater than SCTLs at LOCs 3, 16, and 29, and additional sampling completed at these LOCs confirmed the exceedances. At LOC 3, total polychlorinated biphenyl (PCB) concentrations exceeded residential, industrial, and leachability SCTLs. Total PCB SCTL exceedances in soil at LOC 3 have not been delineated, and additional CS sampling is necessary before an interim measure (IM) can be completed.

Groundwater samples at LOC 3 indicate that leachability of PCBs to groundwater is not of concern, and concrete and asphalt samples collected from LOC 3 indicate these media are not impacted by PCBs. At LOC 16, total PCB concentrations in soil exceeded the residential SCTL, and the exceedances have been delineated. Several polycyclic aromatic hydrocarbons were detected in soil at concentrations greater than industrial and leachability SCTLs at LOC 16; however, the concentrations are less than KSC Parking and Heavy Traffic reference values. At LOC 29, total recoverable petroleum hydrocarbon (TRPH) and total PCB concentrations in soil exceeded SCTLs. TRPH fraction results at LOC 29 are less than SCTLs, indicating that the TRPH SCTL exceedances are not of concern. Additional samples collected at LOC 29 have horizontally delineated total PCB exceedances; however, vertical delineation could not be completed due to energized equipment and potential interference associated with using utility-locating equipment within 5 feet of the pad.

Based on the results of the CS, it is recommended that additional CS sampling be completed at LOC 3 to delineate total PCB residential SCTL exceedances and that LOCs 16 and 29 proceed to soil IMs to address residential SCTL exceedances. LOC 30 will be sampled once operations at the Aft Skirt Test facility are complete. CS sample locations for LOC 30 can be found in the September 2015 Solid Waste Management Unit Assessment Report/CS Work Plan for PRL 227. The Kennedy Space Center Remediation Team (KSCRT) reached consensus on these recommendations at the June 2019 Team Meeting (Meeting Minute 1906-10, Decision 1906-D59). Because of the need for additional activities at LOCs 3, 16, 29, and 30, it is recommended that LOCs 3, 16, 29, and 30 be removed from PRL 227 and become separate PRLs, as follows:

PRL 227 LOC Designation	New PRL Designation
LOC 3 – LBS 35	PRL 227a
LOC 16 – LBS 46	PRL 227b
LOC 29 – LBS 730	PRL 227c
LOC 30 – SS 1116A/1116B	PRL 227d

With the removal of LOCs 3, 16, 29 and 30 from PRL 227, NFA is recommended at PRL 227 based on absence of contamination at LOCs 1, 2, 4 to 15, 17 to 24, 25 to 28, 31, 32, 34 to 39, and 40 to 49. LOC 33 previously received NFA as part of PRL 192 and no additional investigation activities are necessary at this LOC.

SECTION I

INTRODUCTION

1.1 OVERVIEW

This document discusses Confirmatory Sampling (CS) activities performed at Stand Alone Electrical Equipment (SAEE), Potential Release Location (PRL) 227, at Kennedy Space Center (KSC), Florida. This document also includes the Interim Measure Work Plan (IMWP) for SAEE Locations of Concern (LOCs) 16 and 29 and a Supplemental CS Work Plan for LOC 3. This CS Report (CSR) was prepared by Tetra Tech, Inc., for the National Aeronautics and Space Administration (NASA) under Task Order 24 of Indefinite Delivery Indefinite Quantity (IDIQ) Contract NNK12CA15B. The objective of CS was to confirm the presence or absence of contamination resulting from past and present operations at SAEE. Forty-Nine Locations of Concern (LOCs) within the PRL were identified in the September 2015 Solid Waste Management Unit (SWMU) Assessment (SA) Report (SAR)/CS Work Plan (CSWP) (NASA, 2015).

Field activities and sample collection procedures were conducted in accordance with the CSWP. The NASA Sampling and Analysis Plan (SAP) for the Resource Conservation and Recovery Act (RCRA) Corrective Action Program at KSC (NASA, 2017a), Generic Work Plan for the Investigation and Cleanup of PCB-Contaminated Sites Under the Toxic Substances Control Act (NASA, 2007), Site-Specific Health and Safety Plan for CS Activities at Multiple Sites (PRLs, 203, 206, 208, 211, 214, 219, 222, 225, and 227) (NASA, 2018) and Florida Department of Environmental Protection (FDEP) Standard Operation Procedures (SOPs) (2017) were also used as guidance for the CS. Meeting minutes and team decisions associated with the CS recommendations presented in this report are included in Appendix A.

1.2 PURPOSE

The purpose of this CSR is to present the findings of CS activities completed at SAEE from August 2018 to June 2019. Based on the results of the CS investigation, no further action (NFA)

is recommended at 45 of the 49 LOCs. A soil interim measure (IM) is recommended at three LOCs (LOCs 3, 16, and 29), with additional CS sampling needed at LOC 3 prior to proceeding to the soil IM. CS sampling could not be completed at LOC 30 due to operational constraints and will be sampled at a later date. LOC 33 was previously sampled as part of PRL 192, Logistics Facility, and approved for no further action (NFA).

1.3 REPORT ORGANIZATION

The remainder of this CSR is organized as follows:

Section II: *Site Description*. This section describes the site, including an overview of previous and current site operations and site topography, hydrology, and ecology and provides a summary of potential contaminants by LOC.

Section III: *Field Activities.* This section presents the objectives, rationale, and methodologies used to accomplish the CS.

Section IV: *Data Evaluation*. This section outlines the screening process for soil and groundwater samples collected during the CS investigation.

Section V: *Conclusions and Recommendations.* This section provides a summary of activities conducted in support of CS and associated results and presents recommendations based on the results.

Section VI: *References.* This section provides a listing of documents used during development of this report.

SECTION II

SITE DESCRIPTION

2.1 SITE LOCATION, DESCRIPTION, AND HISTORY

KSC is located on the northern portion of Merritt Island, between the Indian and Banana Rivers in Brevard County, Florida. SAEE consists of 49 electrical equipment areas located across KSC. For simplification, the SAEE locations were grouped into three areas based on geographical location during the SAR (NASA, 2015) and are identified on Figure 2-1:

- Area 1 – Hypergol Maintenance Facility (HMF), KSC Industrial, KSC Visitor Center, and Ransom Road Areas;
- Area 2 –Vehicle Assembly Building (VAB), Launch Complex 39 (LC39), Shuttle Landing Facility (SLF), and Outlying Areas; and,
- Area 3 – KSC Northern Area and Kennedy Athletic, Recreation, and Social (KARS) Park Area.

The electrical equipment at SAEE includes electrical transformers (substations [SSs] and universal substations [USSs]), Load Break Switches (LBSs), Vacuum Fault Interrupters (VFIs), and pole-mounted transformers. Eighty-seven pieces of electrical equipment were identified in the SAR, but only 63 pieces of electrical equipment warranted further investigation. The 63 pieces of equipment were further grouped by proximity into 49 LOCs in the SAR. Electrical equipment locations are identified on Figures 2-2 through 2-4 for Area 1 LOCs, on Figures 2-5 and 2-6 for Area 2 LOCs, and Figures 2-7 and 2-8 for Area 3 LOCs.

The KSC Power Distribution System was established in the 1960s with the construction of the first facilities at KSC. This system has been expanded and upgraded over time to support mission requirements. The electrical equipment included under this PRL are located on the transmission (high-voltage) system. With the exception of transformers at LOCs 21, 23, 28, 44, and 45, electrical equipment included under this PRL are known to have used oils that contain

hydrocarbons and/or polychlorinated biphenyls (PCBs) as components. Documentation on electrical equipment at LOCs 21, 23, 28, 44, and 45 indicates that this equipment contained less than 1 part per million (ppm) of PCBs when they were manufactured. PCB-containing oil was phased out in the late 1970s to early 1980s at KSC, or the electrical units were replaced with mineral oil or SF6 gas. Based on interviews conducted during the SA, VFIs and LBSs manufactured or installed after the year 2000 contain SF6 gas. Additionally, by 2000, all existing VFIs and LBSs were converted to SF6 gas.

Many of the site locations are within or near other PRLs and/or SWMUs. Nearby SWMUs and PRLs are listed in Table 2-1.

2.2 SITE TOPOGRAPHY AND HYDROLOGY

Due to the widely dispersed locations of the electrical equipment, site-specific topography and hydrology were not evaluated during the SA. General information for KSC on topography, hydrology, and soils can be found in the Background Chemical and Physical Characteristics Report (NASA, 2000) and Environmental Setting Reference Manual (NASA, 2003).

2.3 SITE ECOLOGY

All of the electrical equipment locations in this PRL are within mowed and maintained areas or within industrial areas adjacent to paved or stabilized roadways or parking lots and are not considered ecological habitat.

2.4 PREVIOUS INVESTIGATIONS

The SA for SAEE, conducted in 2015, included site reconnaissance and interviews with personnel possessing knowledge of past and present work practices and operations at the site, and, as identified in the SAR (NASA, 2015), potential environmental impacts related to operations were identified at SAEE. The SAR identified 49 LOCs for the SAEE where past and/or present releases from the electrical equipment may have impacted the environment and recommended CS to confirm the presence or absence of contamination at the LOCs.

Potential contaminants in soil include PCBs and total recoverable petroleum hydrocarbons (TRPH). PCBs are not considered potential contaminants of concern (COCs) at LOCs 21, 23, 28, 44 and 45 because the electrical equipment at these LOCs was installed from 2003 to 2006 and contained less than 1 ppm of PCBs when manufactured (NASA, 2015). The decision not to sample these LOCs for PCBs was reviewed at the October 2018 Team meeting, where the Team agreed that the prior decision to not sample these LOCs for PCBs remained valid because the transformers contain mineral oil (Meeting Minute 1810-15), Decision Items 1810-D62 to D65). In accordance with the CSWP, hydrocarbons were not analyzed for in samples collected from LOCs 15 and 35 due to the presence of asphalt. SAEE LOCs are presented on Figures 2-2 through 2-8 and are identified in Table 2-1.

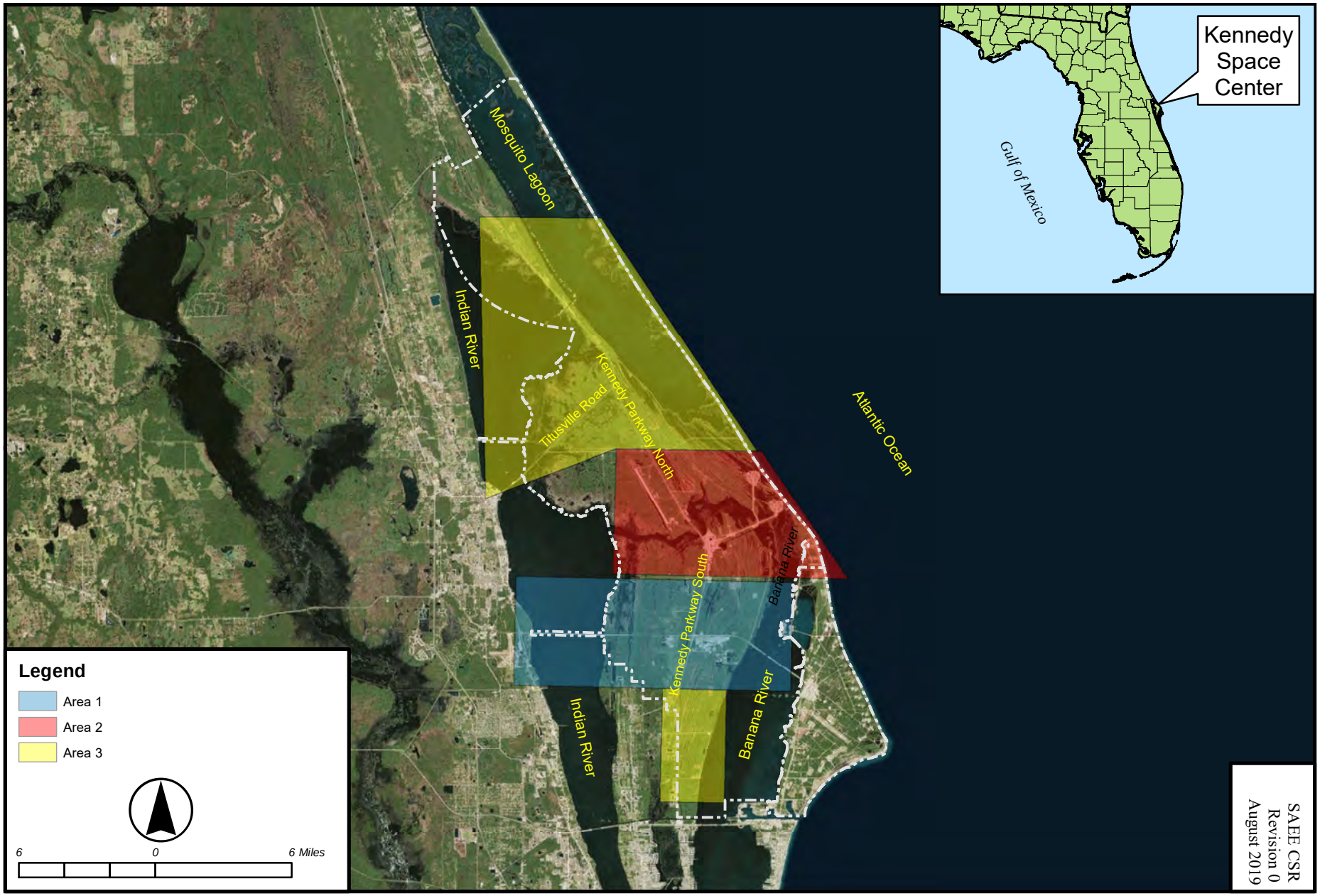
2.5 IDENTIFIED LOCATIONS OF CONCERN

As indicated in Section 2.4, 49 LOCs were identified at SAEE. Table 2-1 provides a description of each LOC, nature of operations, and potential contaminants.

Table 2-1. Summary of SAEE Locations of Concern

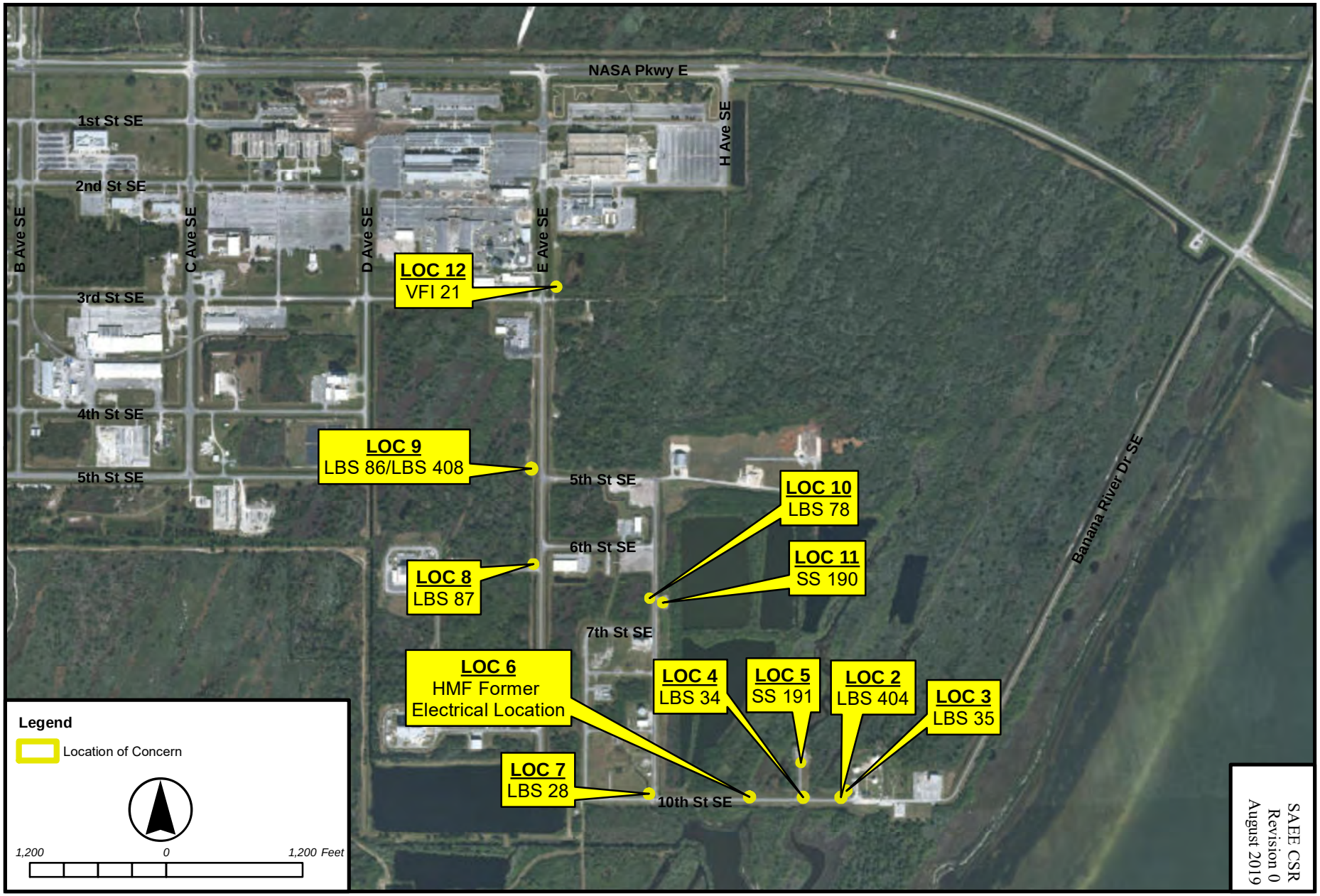
Area	LOC Number and Name	Location	Description	Chemicals Potentially Released	Media of Concern	Applicable Criteria*	Adjacent SWMUs and PRLs
Area 1: HMF, KSC Industrial, KSC Visitor Center, and Ransom Road Areas	LOC 1: LBS 42	Eastern side of Static Test Road across from the Fire Training Area (L7-0888)	Location of an LBS that is suspected to have formerly used PCB-containing oil. The LBS was replaced in 1992 with a new LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	SWMU 006 SWMU 007 PRL 144
	LOC 2: LBS 404	10th Street, west of the former Vertical Processing Facility (M7-1469)	Location of an LBS that is suspected to have formerly used PCB-containing oil. The LBS was replaced in 1993 with a new LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health	SWMU 77 PRL 109
	LOC 3: LBS 35	West of the former Vertical Processing Facility (M7-1469)	Location of an LBS that is suspected to have formerly used PCB-containing oil. The LBS was replaced in 1994 with a new LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health	SWMU 77
	LOC 4: LBS 34	10th Street, south of the Ordnance Lab #2 (M7-1417)	Location of an LBS that is suspected to have formerly used PCB-containing oil. LBS was replaced in 2013 with an LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	PRL 59
	LOC 5: SS 191	Southern side of Ordnance Lab #2 (M7-1417)	Location of an SS installed in 1966.	PCBs and hydrocarbons	Soil	Human Health	PRL 59
	LOC 6: HMF Former Electrical Location	Northern side of 10th Street, west of the Ordnance Lab #2 (M7-1417)	Former location of eletrical equipment (concrete pad remains)	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	PRL 59 PRL 109
	LOC 7: LBS 28	Northwestern corner of intersection of 10th Street and G Avenue	Location of an LBS that is suspected to have formerly used PCB-containing oil. LBS was replaced in 1994 with an LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	PRL 94
	LOC 8: LBS 87	Western side of E Avenue adjacent to the Guard Shack (M7-1104D)	Location of an LBS that is suspected to have formerly used PCB-containing oil. LBS was replaced in 1993 with an LBS that does not use PCBs.	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	PRL 106
	LOC 9: LBS 408/LBS 86 Plus Two Empty Concrete Pads	Western side of E Avenue at intersection of 5th Street and E Avenue	Location of LBSs that are suspected to have formerly used PCB-containing oil. LBSs were replaced in 1995 and 1993, respectively, with LBSs that do not use PCBs.	PCBs and hydrocarbons	Soil	Human Health	None
	LOC 10: LBS 78	Western side of G Avenue across from the former HMF Heat Plant Facility (M7-1112)	Location of an LBS installed in 2013.	PCBs and hydrocarbons	Soil	Human Health; KSC Heavy Traffic/Parking Soil Reference Values	PRL 86A PRL 89
	LOC 11: SS 190	Eastern side of G Avenue, within the former HMF Heat Plant Facility Area (M7-1112)	Location of an SS installed in 2013.	PCBs and hydrocarbons	Soil	Human Health	PRL 86A PRL 89

FIGURE 2-1 LOCATIONS OF KSC AND SAEE AREAS
PRL 227, KENNEDY SPACE CENTER, FLORIDA



PGH:P:\GIS\KSC_NASA\MAPDOCS\MXD\PRL227_SITE_LOCATION_AERIAL.MXD 9/19/2018 SP

FIGURE 2-2 LOCATIONS OF CONCERN AT SAEE AREA 1 - HMF AREA
PRL 227, KENNEDY SPACE CENTER, FLORIDA



PGH:P:\GIS\KSC_NASA\MAPDOCS\MXD\PRL227_AREA1_HMF_LOC_SITE_MAP.MXD 9/19/2018 SP

SECTION III

FIELD ACTIVITIES

The following subsections provide details of field work performed at SAEE during CS activities.

3.1 CONFIRMATORY SAMPLING ACTIVITIES

The objective of CS at SAEE was to confirm and document the presence or absence of contaminants in site media at the 49 LOCs identified at PRL 227. Soil sampling location identification numbers, sample identification numbers, sample depths, and analytical parameters are provided in Table 3-1. In accordance with the KSC Decision Process Document (DPD) (NASA, 2019), all surface soil samples were screened with an organic vapor analyzer (OVA) equipped with a photoionization detector (PID), and LOCs without active electrical equipment (LOCs 5, 6, and 36) were screened to the water table in 2-foot intervals by collecting headspace measurements with an OVA-PID. A PID reading greater than 10 ppm was observed at one sample location at LOC 36 (SB0098 at 0 to 0.5 foot below land surface [bls]), and a soil sample for volatile organic compound (VOC) analysis was collected from this location.

CS activities were conducted in August 2018 in accordance with the CSWP (NASA, 2015), with step-out delineation sampling completed over several phases through April 2019. CS field activities included collection of soil samples using a 3.25-inch inside diameter (ID) stainless-steel hand auger and installation of a monitoring well and groundwater sampling at LOC 3. CS activities are described by LOC in the following subsections.

3.1.1 LOC 1: LBS 42. Four soil samples were collected via hand auger from four soil boring locations at LOC 1 (SB0001 through SB0004). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via the Florida Petroleum Residual Organics (FL-PRO) and PCBs via SW-846 Method 8082. LOC 1 soil sample locations are presented on Figure 3-1.

3.1.2 LOC 2: LBS 404. Six soil samples were initially collected via hand auger from six soil boring locations at LOC 2 (SB0005 through SB0010). The soil samples were collected from 0 to

0.5 foot bls and analyzed for TRPH via the FL-PRO Method and PCBs via SW-846 Method 8082. A second sample was collected at SB0006 at 0 to 0.5 foot bls to confirm PCB concentrations in the initial sample, and analysis was also conducted for Synthetic Precipitation Leaching Procedure (SPLP) PCBs to confirm the leachability Soil Cleanup Target Level (SCTL) exceedance. Due to the variability in concentrations between the initial sample and second sample, a deeper soil sample was collected at SB0006 from 0.5 to 2 feet bls for PCB analysis, and additional step-out samples for PCB analysis were collected 5 feet from SB0006 (SB0280, SB0281, and SB0282). LOC 2 soil sample locations are presented on Figure 3-2.

3.1.3 LOC 3: LBS 35. Ten soil samples were initially collected via hand auger from 10 soil boring locations at LOC 3 (SB0011 through SB0020). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via the FL-PRO and PCBs via SW-846 Method 8082. Based on initial sample PCB results, 70 additional soil samples (0 to 0.5, 0.5 to 2 and 2 to 3 feet bls), five concrete samples (one from the pad adjacent to SB0012 and four along the curb and apron in the eastern portion of the site), one asphalt sample, and one road base material sample were collected and analyzed for PCBs for delineation purposes as identified on Table 3-1. In accordance with the DPD (NASA, 2019) a soil sample was also collected from the location and depth of the maximum PCB concentration (SB0012) and analyzed for semivolatile organic compounds (SVOCs) via SW-846 Method 8270. Two soil samples with leachabilty SCTL exceedances were also analyzed for SPLP PCBs. Delineation samples needed from the subslab soil sample beneath the transformer and samples from depths greater than 2 feet bls at locations within 5 feet of the transformer pad could not be collected due to energized lines. Based on SPLP results exceeding GCTLs at SB0012, a monitoring well (MW0001) was installed at the top of the water table (screened from 5 to 15 feet bls) near SB0012, and a groundwater sample was collected from the monitoring well and analyzed for PCBs. LOC 3 sample locations are presented on Figure 3-3.

3.1.4 LOC 4: LBS 34. Four soil samples were collected via hand auger from four soil boring locations at LOC 4 (SB0021 through SB0024). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via FL-PRO and PCBs via SW-846 Method 8082. LOC 4 soil sample locations are presented on Figure 3-4.

CS field activities. Four soil samples were collected via hand auger from four soil boring locations at LOC 46 (SB0238 through SB0241). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via FL-PRO and PCBs via SW-846 Method 8082. LOC 46 soil sample locations are presented on Figure 3-44.

3.1.47 LOC 47: VFI 797. Four soil samples were collected via hand auger from four soil boring locations at LOC 47 (SB0242 through SB0245). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via FL-PRO and PCBs via SW-846 Method 8082. LOC 47 soil sample locations are presented on Figure 3-45.

3.1.48 LOC 48: SS 1169. Four soil samples were collected via hand auger from four soil boring locations at LOC 48 (SB0246 through SB0249). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via FL-PRO and PCBs via SW-846 Method 8082. LOC 48 soil sample locations are presented on Figure 3-46.

3.1.49 LOC 49: KARS Double and Triple Pole-Mounted Transformers. LOC 49A is the double pole-mounted transformers located at KARS Park I East Ballfield. LOC 49B is the triple pole-mounted transformers located at KARS Park I Center Ballfield. Four soil samples were collected via hand auger from four soil boring locations at LOC 49 (SB0250 and SB0251 at LOC 49A, and SB0252 and SB0253 at LOC 49B). The soil samples were collected from 0 to 0.5 foot bls and analyzed for TRPH via the FL-PRO Method and PCBs via SW-846 Method 8082. LOC 49 soil sample locations are presented on Figure 3-47 (LOC 49A) and Figure 3-48 (LOC 49B).

3.2 FIELD INVESTIGATION METHODOLOGY

CS soil sampling and monitoring well installation and sampling activities were performed in accordance with applicable portions of the CSWP (NASA, 2015), NASA SAP (2017a), Generic Work Plan for the Investigation and Cleanup of PCB-Contaminated Sites Under the Toxic Substances Control Act (NASA, 2007), and FDEP SOPs (2017). Boring logs and well completion logs completed during the field events are provided in Appendix B.

3.2.1 SOIL SAMPLING. Soil samples were collected using a 3.25-inch ID stainless-steel hand auger. Soil samples were collected from 0 to 0.5 feet bls from all LOCs. Deeper soil samples were collected at depths of 0.5 to 2 feet bls and 2 to 3 feet bls at LOCs 3, 16, and 29 for delineation purposes. Generally, a soil sample was collected from each side of the electrical equipment and adjacent to the pad. If sporadic light gravel was present at a LOC, the sample matrix collected included the small pieces of gravel and soil, which were mixed in a stainless-steel bowl. No thick gravel was encountered at the LOCs (i.e., 3 inches or more of dense gravel on top of soil); therefore, no gravel samples were collected during the CS. Composite samples of asphalt, road base, and soil beneath the road base material were collected at LOCs 15 and 35, as identified in the CSWP (NASA, 2015). Asphalt and road base portions of the composite sample were collected as described in Section 3.2.2. CS soil sample locations were recorded using a handheld global positioning system (GPS).

Soil samples were screened using an OVA-PID. Buried electrical lines associated with active electrical equipment prevented measurement of headspace readings to the water table during soil sampling at all LOCs except LOCs 5, 6, and 36. Soil borings at LOCs 5, 6, and 36 were screened to the water table or refusal in 2-foot increments. A PID reading greater than 10 ppm was observed at one sample location at LOC 36 (SB0098 at 0 to 0.5-foot bls), and a soil sample for VOC analysis was collected from this location.

No delineation soil sampling could be completed below 2 feet bls within 5 feet of an active energized pad, and no subslab sampling could be completed at active pads. This was done as a precaution due to potential utility location equipment interference, which is more likely within 5 feet of the pad.

Samples were placed in laboratory-provided sample containers, sealed, labeled, packed on ice, and delivered under proper chain-of-custody protocol to the laboratory. Soil samples collected in August 2018 were sent to Katahdin Analytical Laboratories, of Scarborough, Maine, for analysis. Soil samples collected after August 2018 were sent to TestAmerica Laboratories of Pensacola, Florida. Soil boring log sheets are provided in Appendix B.

3.2.2 3.2.2 CONCRETE, ASPHALT, AND ROAD BASE SAMPLING. Concrete samples were collected at LOCs 3, 16, and 29, and asphalt and road base samples were collected at LOC 3. Composite samples of asphalt, road base, and soil beneath the road base material were collected at LOCs 15 and 35. Concrete and asphalt samples were collected from the top 0 to 0.5 inches of the surface using a pre-cleaned masonry bit until enough powdered material was generated as required by the laboratory. The road base material sample at LOC 3 was collected at the first interval directly beneath the asphalt (approximately 0.8 foot bls). Concrete samples from electrical equipment pads were collected at locations adjacent to maximum PCB soil concentrations. Concrete samples were also collected from concrete curbing and the apron at LOC 3 to delineate liquid PCB releases. Concrete, asphalt, and road base sample locations were recorded using a handheld global positioning system (GPS).

Concrete, asphalt, and road base material samples were submitted to TestAmerica, of Pensacola, Florida, for PCB analyses. Sample log sheets for the concrete, asphalt, and road base material samples are included in Appendix B.

3.2.3 MONITORING WELL INSTALLATION AND SAMPLING. Because the SPLP concentration for total PCBs at LOC 3 was greater than the GCTL, a monitoring well was installed at LOC 3 to capture the top of the water table with a screened interval of 5 to 15 feet bls. The well was constructed of 1-inch-diameter Schedule 40 polyvinyl chloride with a 10-foot screened interval and 0.01-inch slot size. The well was completed with a concrete pad and 8-inch-diameter manhole flush with the ground surface. The well location and top of casing elevation were recorded by a professional surveyor. Well construction details are presented in Table 3-2. The well completion log is included in Appendix B.

The monitoring well was installed by Drillpro LLC dba as Groundwater Protection of Orlando, Florida, using direct-push technology drilling methods. The well was subsequently developed, gauged for depth to water, and sampled. The groundwater sample was submitted to TestAmerica, of Pensacola, Florida, for PCB analysis. Field parameters were also measured at the newly installed well as identified on the monitoring well sample log sheet provided in Appendix B.

3.2.4 DATA QUALITY. Environmental samples were collected under chain-of-custody protocol and analyzed for analytes of interest in accordance with the KSC SAP (NASA, 2017a) and DPD (NASA, 2019). Samples were collected with dedicated or disposable sampling equipment when possible.

A review of the quality control (QC) data associated with SAEE CS activities was completed to ensure that quality defensible data consistent with the project's data quality objectives were collected. QC data evaluated for CS activities included trip blank and laboratory method blank results. There were no detections of VOCs in the CS trip blanks associated with the SAEE site. TRPH was detected at concentrations less than SCTLs in soil samples at LOCs 9, 19, and 20 and in the associated laboratory method blank, indicating that the low-level detections at these LOCs, may be attributable to laboratory contamination. The associated sample results were qualified with a "V" qualifier.

To support data usability, Laboratory Practical Quantitation Limits (PQLs) and Method Detection Limits (MDLs) were reviewed to evaluate whether these reporting limits were less than FDEP SCTLs and Groundwater Cleanup Target Levels (GCTLs). MDLs for groundwater and SPLP leachate samples met the GCTLs. PCBs and TRPH MDLs were less than SCTLs; however, a few VOCs and SVOCs had MDLs greater than the associated minimum SCTLs (i.e., lowest value of the industrial, residential, and leachability SCTLs). Table 3-3 identifies the chemicals with MDLs that are greater than associated minimum SCTLs for CS soil samples. The laboratory confirmed that elevated PQLs and MDLs were due to dilutions needed because of sample matrix interference. This introduces some uncertainty to the data; however, MDL exceedances of CTLs were not seen across an entire chemical class (e.g., all polycyclic aromatic hydrocarbons [PAHs] or all chlorinated compounds). Therefore, slightly elevated reporting limits should not restrict use of the data, and the data are considered usable for decision making at the site.

Table 3-1. Summary of SAEE Confirmatory Sampling

LOC	Matrix	Location ID (SAEE-)	Sample ID	Sample Depth (ft bls)	Analyses						
					VOCs	SVOCs	TRPH	TRPH Fractions	TRPH SPLP	PCBs	SPLP PCBs
1	SO	SB0001	SAEE-SB0001-000.5-20180811	0.0-0.5			X			X	
		SB0002	SAEE-SB0002-000.5-20180811	0.0-0.5			X			X	
		SB0003	SAEE-SB0003-000.5-20180811	0.0-0.5			X			X	
		SB0004	SAEE-SB0004-000.5-20180811	0.0-0.5			X			X	
2	SO	SB0005	SAEE-SB0005-000.5-20180810	0.0-0.5			X			X	
		SB0006	SAEE-SB0006-000.5-20180810	0.0-0.5			X			X	
			SAEE-SB0006-000.5-20181012	0.0-0.5						X	X
			SAEE-SB0006-002.0-20190206	0.0-0.5						X	
		SB0007	SAEE-SB0007-000.5-20180810	0.0-0.5			X			X	
		SB0008	SAEE-SB0008-000.5-20180810	0.0-0.5			X			X	
		SB0009	SAEE-SB0009-000.5-20180810	0.0-0.5			X			X	
		SB0010	SAEE-SB0010-000.5-20180810	0.0-0.5			X			X	
		SB0280	SAEE-SB0280-000.5-20190206	0.0-0.5						X	
		SB0281	SAEE-SB0281-000.5-20190206	0.0-0.5						X	
		SB0282	SAEE-SB0282-000.5-20190206	0.0-0.5						X	
3	AS	AS0001	SAEE-AS0001-000.2-20190426	0.0-0.2						X	
	RB	AS0001	SAEE-AS0001-000.8-20190426	0.2 -0.6						X	
	CO	CS0001	SAEE-CS0001-000.5-20190206	0.0-0.5						X	
		CS0004	SAEE-CS0004-000.5-20190426	0.0-0.5						X	
		CS0005	SAEE-CS0005-000.5-20190426	0.0-0.5						X	
		CS0006	SAEE-CS0006-000.5-20190426	0.0-0.5						X	
		CS0007	SAEE-CS0007-000.5-20190426	0.0-0.5						X	
	SO	SB0011	SAEE-SB0011-000.5-20180810	0.0-0.5			X			X	
		SB0012	SAEE-SB0012-000.5-20180810	0.0-0.5			X			X	
			SAEE-SB0012-000.5-20181012	0.0-0.5		X					
			SAEE-SB0012-002.0-20181012	0.0-0.5						X	
			SAEE-SB0012-002.0-20190206	0.5-2.0						X	X
		SB0013	SAEE-SB0013-000.5-20180810	0.0-0.5			X			X	
		SB0014	SAEE-SB0014-000.5-20180810	0.0-0.5			X			X	
		SB0015	SAEE-SB0015-000.5-20180810	0.0-0.5			X			X	
			SAEE-SB0015-002.0-20181012	0.5-2.0						X	
		SB0016	SAEE-SB0016-000.5-20180810	0.0-0.5			X			X	
		SB0017	SAEE-SB0017-000.5-20180810	0.0-0.5			X			X	
			SAEE-SB0017-002.0-20181012	0.5-2.0						X	
		SB0018	SAEE-SB0018-000.5-20180810	0.0-0.5			X			X	
		SB0019	SAEE-SB0019-000.5-20180810	0.0-0.5			X			X	
		SB0020	SAEE-SB0020-000.5-20180810	0.0-0.5			X			X	
		SB0254	SAEE-SB0254-000.5-20181012	0.0-0.5						X	
		SB0255	SAEE-SB0255-000.5-20181012	0.0-0.5						X	
			SAEE-SB0255-002.0-20181012	0.5-2.0						X	
		SB0256	SAEE-SB0256-000.5-20181012	0.0-0.5						X	
			SAEE-SB0256-002.0-20181012	0.5-2						X	

Table 3-1. Summary of SAEE Confirmatory Sampling (continued)

LOC	Matrix	Location ID (SAEE-)	Sample ID	Sample Depth (ft bls)	Analyses						
					VOCs	SVOCs	TRPH	TRPH Fractions	TRPH SPLP	PCBs	SPLP PCBs
3 (cont.)	SO	SB0257	SAEE-SB0257-000.5-20181012	0.0-0.5						X	
		SB0258	SAEE-SB0258-000.5-20181012	0.0-0.5						X	
			SAEE-SB0258-002.0-20181012	0.5-2.0						X	
			SAEE-SB0258-003.0-20190425	2.0-3.0						X	
		SB0259	SAEE-SB0259-000.5-20181012	0.0-0.5						X	
			SAEE-SB0259-002.0-20181012	0.5-2.0						X	
			SAEE-SB0259-003.0-20190425	2.0-3.0						X	
		SB0260	SAEE-SB0260-000.5-20181013	0.0-0.5						X	
			SAEE-SB0260-003.0-20190425	2.0-3.0						X	
			SAEE-SB0260-002.0-20181013	0.5-2.0						X	
		SB0261	SAEE-SB0261-000.5-20181013	0.0-0.5						X	
			SAEE-SB0261-002.0-20181013	0.5-2.0						X	
		SB0262	SAEE-SB0262-000.5-20181013	0.0-0.5						X	
			SAEE-SB0262-002.0-20181013	0.5-2.0						X	
		SB0263	SAEE-SB0263-000.5-20181013	0.0-0.5						X	
		SB0264	SAEE-SB0264-000.5-20181013	0.0-0.5						X	
			SAEE-SB0264-002.0-20181013	0.5-2.0						X	
		SB0265	SAEE-SB0265-000.5-20181013	0.0-0.5						X	
			SAEE-SB0265-002.0-20181013	0.5-2.0						X	
		SB0266	SAEE-SB0266-000.5-20190206	0.0-0.5						X	
			SAEE-SB0266-000.5-20190425	0.0-0.5						X	X
			SAEE-SB0266-002.0-20190425	0.5-2.0						X	
		SB0267	SAEE-SB0267-000.5-20190206	0.0-0.5						X	
		SB0268	SAEE-SB0268-000.5-20190206	0.0-0.5						X	
		SB0269	SAEE-SB0269-000.5-20190206	0.0-0.5						X	
		SB0270	SAEE-SB0270-000.5-20190206	0.0-0.5						X	
		SB0271	SAEE-SB0271-000.5-20190206	0.0-0.5						X	
		SB0283	SAEE-SB0283-000.5-20190206	0.0-0.5						X	
		SB0284	SAEE-SB0284-000.5-20190206	0.0-0.5						X	
		SB0285	SAEE-SB0285-000.5-20190425	0.0-0.5						X	
			SAEE-SB0285-002.0-20190425	0.5-2.0						X	
		SB0286	SAEE-SB0286-000.5-20190425	0.0-0.5						X	
		SB0287	SAEE-SB0287-000.5-20190425	0.0-0.5						X	
		SB0288	SAEE-SB0288-000.5-20190425	0.0-0.5						X	
		SB0289	SAEE-SB0289-000.5-20190425	0.0-0.5						X	
			SAEE-SB0289-002.0-20190425	0.5-2.0						X	
		SB0290	SAEE-SB0290-000.5-20190425	0.0-0.5						X	
			SAEE-SB0290-002.0-20190425	0.5-2.0						X	
		SB0291	SAEE-SB0291-000.5-20190425	0.0-0.5						X	
			SAEE-SB0291-002.0-20190425	0.5-2.0						X	
		SB0292	SAEE-SB0292-000.5-20190425	0.0-0.5						X	
			SAEE-SB0292-002.0-20190425	0.5-2.0						X	
		SB0293	SAEE-SB0293-000.5-20190425	0.0-0.5						X	

Table 3-1. Summary of SAEE Confirmatory Sampling (continued)

LOC	Matrix	Location ID (SAEE-)	Sample ID	Sample Depth (ft bls)	Analyses						
					VOCs	SVOCs	TRPH	TRPH Fractions	TRPH SPLP	PCBs	SPLP PCBs
3 (cont.)	SO	SB0293	SAEE-SB0293-002.0-20190425	0.5-2.0						X	
		SB0294	SAEE-SB0294-000.5-20190425	0.0-0.5						X	
			SAEE-SB0294-002.0-20190425	0.5-2.0						X	
		SB0295	SAEE-SB0295-000.5-20190425	0.0-0.5						X	
			SAEE-SB0295-002.0-20190425	0.5-2.0						X	
		SB0296	SAEE-SB0296-000.5-20190425	0.0-0.5						X	
			SAEE-SB0296-002.0-20190425	0.5-2.0						X	
		SB0297	SAEE-SB0297-000.5-20190425	0.0-0.5						X	
			SAEE-SB0297-002.0-20190425	0.5-2.0						X	
		SB0298	SAEE-SB0298-000.5-20190425	0.0-0.5						X	
			SAEE-SB0298-002.0-20190425	0.5-2.0						X	
		SB0299	SAEE-SB0299-000.5-20190426	0.0-0.5						X	
			SAEE-SB0299-002.0-20190426	0.5-2.0						X	
	GW	MW0001	SAEE-MW0001-008.0-20190522	5-15						X	
4	SO	SB0021	SAEE-SB0021-000.5-20180810	0.0-0.5			X			X	
		SB0022	SAEE-SB0022-000.5-20180810	0.0-0.5			X			X	
		SB0023	SAEE-SB0023-000.5-20180810	0.0-0.5			X			X	
		SB0024	SAEE-SB0024-000.5-20180810	0.0-0.5			X			X	
5	SO	SB0025	SAEE-SB0025-000.5-20180815	0.0-0.5			X			X	
		SB0026	SAEE-SB0026-000.5-20180815	0.0-0.5			X			X	
		SB0027	SAEE-SB0027-000.5-20180815	0.0-0.5			X			X	
		SB0028	SAEE-SB0028-000.5-20180815	0.0-0.5			X			X	
6	SO	SB0029	SAEE-SB0029-000.5-20180815	0.0-0.5			X			X	
		SB0030	SAEE-SB0030-000.5-20180815	0.0-0.5			X			X	
		SB0031	SAEE-SB0031-000.5-20180815	0.0-0.5			X			X	
		SB0032	SAEE-SB0032-000.5-20180815	0.0-0.5			X			X	
7	SO	SB0033	SAEE-SB0033-000.5-20180810	0.0-0.5			X			X	
		SB0034	SAEE-SB0034-000.5-20180810	0.0-0.5			X			X	
		SB0035	SAEE-SB0035-000.5-20180810	0.0-0.5			X			X	
		SB0036	SAEE-SB0036-000.5-20180810	0.0-0.5			X			X	
8	SO	SB0037	SAEE-SB0037-000.5-20180811	0.0-0.5			X			X	
		SB0038	SAEE-SB0038-000.5-20180811	0.0-0.5			X			X	
		SB0039	SAEE-SB0039-000.5-20180811	0.0-0.5			X			X	
		SB0040	SAEE-SB0040-000.5-20180811	0.0-0.5			X			X	
9	SO	SB0041	SAEE-SB0041-000.5-20180811	0.0-0.5			X			X	
		SB0042	SAEE-SB0042-000.5-20180811	0.0-0.5			X			X	
		SB0043	SAEE-SB0043-000.5-20180811	0.0-0.5			X			X	
		SB0044	SAEE-SB0044-000.5-20180811	0.0-0.5			X			X	
		SB0045	SAEE-SB0045-000.5-20180811	0.0-0.5			X			X	
		SB0046	SAEE-SB0046-000.5-20180811	0.0-0.5			X			X	
		SB0047	SAEE-SB0047-000.5-20180811	0.0-0.5			X			X	
		SB0048	SAEE-SB0048-000.5-20180811	0.0-0.5			X			X	
		SB0049	SAEE-SB0049-000.5-20180811	0.0-0.5			X			X	

Table 3-2. Monitoring Well Construction Details

Well ID (SAEE-)	Well Completion Date	Well Diameter (inches)	Total Well Depth (feet bls)	Screened Interval (feet bls)	T.O.C. Elevation (feet)	May 17, 2019
						Depth to Water (feet below T.O.C.)
MW0001	05/17/2019	1	15	5-15	6.54	7.5

bls - Below land surface.
msl - Mean sea level.
T.O.C - Top of casing.

Table 3-3. Soil Detection Limit Evaluation

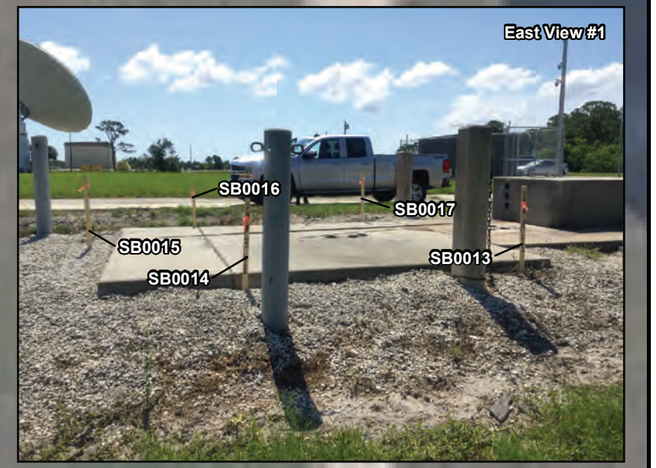
Parameter	FDEP SCTLs				PQL		MDL			PQL > Minimum SCTL	PQL > 5x MDL	MDL > Minimum SCTL
	RSCTL	ISCTL	LSCTL	Minimum SCTL	Min	Max	Min	Max	5x MDL			
VOCs (mg/kg)												
1,2-DIBROMO-3-CHLOROPROPANE	0.7	3.8	0.001	**0.001**	0.006	0.006	0.0016	0.0016	0.008	**Yes**	No	**Yes**
1,2-DIBROMOETHANE	0.1	0.2	0.0001	**0.0001**	0.006	0.006	0.0013	0.0013	0.0065	**Yes**	No	**Yes**
SVOCs (mg/kg)												
1,4-DIOXANE	23	38	0.01	**0.01**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
2,4-DICHLOROPHENOL	190	2400	0.003	**0.003**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
2,4-DINITROPHENOL	110	1200	0.06	**0.06**	1.1	1.1	0.31	0.31	1.55	**Yes**	No	**Yes**
2,4-DINITROTOLUENE	1.2	4.3	0.0004	**0.0004**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
3,3'-DICHLOROBENZIDINE	2.1	9.9	0.003	**0.003**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
3-NITROANILINE	21	130	0.01	**0.01**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
4-NITROANILINE	17	96	0.008	**0.008**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
ANILINE	27	150	0.03	**0.03**	0.35	0.35	0.046	0.046	0.23	**Yes**	**Yes**	**Yes**
BIS(2-CHLOROETHYL)ETHER	0.3	0.5	0.0001	**0.0001**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
N-NITROSO-DI-N-PROPYLAMINE	0.08	0.2	0.00005	**0.00005**	0.35	0.35	0.12	0.12	0.6	**Yes**	No	**Yes**
NITROBENZENE	18	140	0.02	**0.02**	0.35	0.35	0.035	0.035	0.175	**Yes**	**Yes**	**Yes**
PENTACHLOROPHENOL	7.2	28	0.03	**0.03**	0.71	0.71	0.071	0.071	0.355	**Yes**	**Yes**	**Yes**

Only chemicals with an MDL that exceeds the associated minimum SCTL are listed in this table.

FDEP = Florida Department of Environmental Protection.
ISCTL = Industrial Soil Cleanup Target Level.
LSCTL = Leachability Soil Cleanup Target Level.
MDL = Method Detection Limit.
PQL = Practical Quantitation Limit.
RSCTL = Residential Soil Cleanup Target Level.
SCTL = Soil Cleanup Target Level.
mg/kg = Milligrams per kilogram.

FIGURE 3-3 LOC 3 CS SAMPLE LOCATIONS
PRL 227, KENNEDY SPACE CENTER, FLORIDA

SAEE CSR
Revision 0
August 2019



SB0298
SB0297
SB0296
SB0294
SB0295
SB0293
SB0292
SB0289
SB0266
SB0290
SB0015
SB0256
SB0255
SB0291
SB0254
SB0014
SB0016
SB0257
SB0263
SB0013
SB0258
SB0264
SB0270
SB0017
SB0288
SB0012
SB0265
SB0271
CS0007
SB0287
CS0001
SB0267
MW0001
SB0018
SB0286
SB0259
SB0011
SB0260
SB0019
CS0005
SB0020
SB0262
CS0004
SB0261
SB0284
SB0268
CS0006
AS0001/SB0299
SB0285
SB0283
SB0269

Legend

- Asphalt Sample Location
- Concrete Sample Location
- Soil Sample Location
- Monitoring Well Location

20 0 20 Feet

PGH:P:\GIS\KSC_NASA\MAPDOCS\MXD\PRL227_LOC3_SAMP_MAP.MXD 8/5/2019 SP

SECTION IV

DATA EVALUATION

4.1 CS DATA SCREENING PROCESS

Multiple soil samples were collected for laboratory analysis during CS activities at SAEE. Analytical results were evaluated to identify chemical constituents present at concentrations exceeding applicable screening criteria, to assess which area(s) of the site require further investigation, and to identify areas that may qualify for NFA. The analytical data evaluation was performed in accordance with procedures detailed in the DPD (NASA, 2019).

Sample results were compared to FDEP Cleanup Target Levels (CTLs) and applicable background values to determine the presence or absence of contamination. Soil screening procedures involved comparing data to FDEP SCTLs and KSC Combined Soil Background (CSB) values at all LOCs. In addition, soil data were compared to KSC Parking and Heavy Traffic (P/T) at LOCs as identified in the CSWP and Table 2-1. If the soil concentration of a chemical is greater than the SCTL but less than the maximum background/reference values, the presence of the chemical is not considered to be site related. SPLP and groundwater data were compared to FDEP GCTLs.

4.2 PRESENCE OR ABSENCE OF CONTAMINATION

Laboratory analytical results for all CS samples are provided in Appendix C. Tables 4-1 through 4-48 present soil data for each LOC, Table 4-49 presents SPLP data for all LOCs, and Table 4-50 presents monitoring well groundwater data for LOC 3. CS sampling locations are presented on Figures 3-1 to 3-48. The following subsections include the results of comparisons to CTLs and the aforementioned KSC screening criteria.

4.2.1 LOC 1: LBS 42. Four surface soil samples (0 to 0.5 foot bls) were collected from four soil boring locations at LOC 1 (SB0001 through SB0004) and analyzed for TRPH and PCBs. LOC 1 soil results were less than applicable FDEP SCTLs, as presented in Table 4-1.

4.2.2 LOC 2: LBS 404. At LOC 2, six surface soil samples (0 to 0.5 foot bls) were initially collected from locations SB0005 through SB0010 and analyzed for TRPH and PCBs. At SB0006, the total PCB concentration of 21 mg/kg was greater than FDEP residential and leachability SCTLs, as identified in Table 4-2. A second soil sample was collected from SB0006 to confirm the SCTL exceedances, including a sample for SPLP extraction to confirm the leachability exceedance. Total PCB concentrations in the leachate sample were less than GCTLs, as identified on Table 4-49. Total PCB concentrations in the second sample were less than the SCTL. Due to the variability in PCB concentrations in the soil samples collected at SB0006, additional soil samples were collected and analyzed for PCBs. A deeper sample was collected at SB0006 from 0.5 to 2 feet bls, and three step-out samples were collected 5 feet east, west, and north of SB0006 (SB0280, SB0281, and SB0282). Total PCB concentrations in these additional samples were less than applicable SCTLs and did not confirm the initial SCTL exceedances. LOC 2 soil results are presented in Table 4-2.

4.2.3 LOC 3: LBS 35. At LOC 3, 10 surface soil (0 to 0.5 foot bls) samples were initially collected from locations SB0011 through SB0020 and analyzed for TRPH and PCBs. TRPH was detected at concentrations less than the SCTL, and total PCB concentrations were greater than residential, industrial, and leachability SCTLs at several locations. In accordance with the DPD (NASA, 2019), a soil sample was collected from 0.5 to 2 feet bls at the location with the maximum PCB concentration (SB0012) and analyzed for SVOCs; SVOC results were less than SCTLs (Table 4-3). Over 70 additional soil samples were collected to delineate the PCB SCTL exceedances in soil; however, as identified in Table 4-4 and on Figures 4-1, 4-2 and 4-3, delineation of PCBs in soil at LOC 3 is not complete.

As identified on Figure 4-1, total PCB concentrations in surface soil samples (0 to 0.5 foot bls) collected north of the pad are greater than total PCB concentrations in samples closer to the pad. In addition, total PCB concentrations in several 0.5- to 2-foot bls samples (Figure 4-2) in the northern area are greater than surface soil concentrations in the same area (Figure 4-3). This is suspected to be due to reworking of the area since 2008 associated with removal of the Vertical Processing Facility (VPF) immediately east of the LOC and a cooling tower associated with the

VPF that was located north of the LOC. In addition, a soil IM, including excavation of soil from 0 to 0.5 foot bls from three areas at the VPF, was completed in October 2009 near the LOC to address copper and chromium soil contamination. One of these areas was located adjacent to LOC 3, as identified on Figures 4-1, 4-2, and 4-3.

The maximum total PCB concentration at the LOC (99 mg/kg) was detected in a sample collected along the western side of the pad, SB0012, from 0.5 to 2 feet bls. SB0012 was resampled, and concentrations were less than 50 mg/kg, as identified in Table 4-4. A subslab soil sample beneath the pad and soil samples below 2 feet bls within 5 feet of the transformer pad could not be collected due to energized lines associated with the transformer.

Based on the initial leachability SCTL exceedances at SB0012 and SB0266, additional samples were collected from these locations for SPLP leachate extraction, and the extracts were analyzed for PCBs. As identified in Table 4-49, the total PCB concentration in the leachate from SB0012 was greater than the GCTL. Therefore, a monitoring well (MW0001) was installed as close as possible to SB0012 and screened at 5 to 15 feet bls to capture the top of the water table (measured at 5.2 feet bls in May 2019 at MW0001) to further evaluate the leachability exceedance. Total PCB groundwater concentrations at MW0001 were less than the GCTL (Table 4-50), indicating that leachability is not a concern for PCBs at this LOC.

4.2.4 LOC 4: LBS 34. At LOC 4, four surface soil samples (0 to 0.5 foot bls) were collected at locations SB0021 through SB0024 and analyzed for TRPH and PCBs. LOC 4 soil results were less than applicable FDEP SCTLs, as presented in Table 4-5.

4.2.5 LOC 5: SS 191. At LOC 5, four surface soil samples (0 to 0.5 foot bls) were collected at locations SB0025 through SB0028 and analyzed for TRPH and PCBs. LOC 5 soil results were less than applicable FDEP SCTLs, as presented in Table 4-6.

4.2.6 LOC 6: HMF FORMER ELECTRICAL LOCATION. At LOC 6, four surface soil (0 to 0.5 foot bls) samples were collected at locations SB0029 through SB0032 and analyzed for

Table 4-3. Soil Analytical Results for LOC 3 - SVOCs

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0012
	RSCTL	ISCTL	LSCTL	Combined Soil[(1)]	10/12/2018 0-0.5 ft bls
SVOCs (MG/KG)					
1,1-BIPHENYL	3000	34000	0.2	NC	0.035 U
1,2,4,5-TETRACHLOROBENZENE	12	100	0.5	NC	0.035 U
1,2,4-TRICHLOROBENZENE	660	8500	5.3	NC	0.035 U
1,2-DICHLOROBENZENE	880	5000	17	NC	0.035 U
1,3-DICHLOROBENZENE	380	2200	7	NC	0.035 U
1,3-DINITROBENZENE	NC	NC	NC	NC	0.035 U
1,4-DICHLOROBENZENE	6.4	9.9	2.2	NC	0.035 U
1,4-DIOXANE	23	38	0.01	NC	0.035 U
1-METHYLNAPHTHALENE	200	1800	3.1	NC	0.035 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	NC	NC	NC	0.035 U
2,3,4,6-TETRACHLOROPHENOL	NC	NC	NC	NC	0.035 U
2,4,5-TRICHLOROPHENOL	7700	130000	0.07	NC	0.035 U
2,4,6-TRICHLOROPHENOL	70	230	0.06	NC	0.035 U
2,4-DICHLOROPHENOL	190	2400	0.003	NC	0.035 U
2,4-DIMETHYLPHENOL	1300	18000	1.7	NC	0.035 U
2,4-DINITROPHENOL	110	1200	0.06	NC	0.31 U
2,4-DINITROTOLUENE	1.2	4.3	0.0004	NC	0.035 U
2,6-DINITROTOLUENE	NC	NC	NC	NC	0.035 U
2-CHLORONAPHTHALENE	5000	61000	260	NC	0.035 U
2-CHLOROPHENOL	130	860	0.7	NC	0.035 U
2-METHYLNAPHTHALENE	210	2100	8.5	NC	0.035 U
2-METHYLPHENOL	2900	31000	0.3	NC	0.035 U
2-NITROANILINE	24	130	0.1	NC	0.035 U
2-NITROPHENOL	NC	NC	NC	NC	0.035 U
3&4-METHYLPHENOL	NC	NC	NC	NC	0.035 U
3,3'-DICHLOROBENZIDINE	2.1	9.9	0.003	NC	0.035 U
3-NITROANILINE	21	130	0.01	NC	0.035 U
4,6-DINITRO-2-METHYLPHENOL	8.4	180	0.4	NC	0.035 U
4-BROMOPHENYL PHENYL ETHER	NC	NC	NC	NC	0.035 U
4-CHLORO-3-METHYLPHENOL	600	8000	0.4	NC	0.035 U
4-CHLOROANILINE	270	3700	0.2	NC	0.035 U
4-CHLOROPHENYL PHENYL ETHER	NC	NC	NC	NC	0.035 U
4-NITROANILINE	17	96	0.008	NC	0.035 U
4-NITROPHENOL	560	7900	0.3	NC	0.12 U
ACENAPHTHENE	2400	20000	2.1	NC	0.035 U
ACENAPHTHYLENE	1800	20000	27	NC	0.035 U
ACETOPHENONE	3900	32000	3.9	NC	0.035 U
ANILINE	27	150	0.03	NC	0.046 U
ANTHRACENE	21000	300000	2500	NC	0.035 U
ATRAZINE	4.3	19	0.06	NC	0.035 U
AZOBENZENE	NC	NC	NC	NC	0.035 U
BAP EQUIVALENT-HALFND	0.1	0.7	8	NC	0.035 U
BENZALDEHYDE	3300	24000	4.8	NC	0.035 U
BENZIDINE	NC	NC	NC	NC	0.11 U
BENZO(A)ANTHRACENE	NC	NC	0.8	0.01 - 47	0.035 U
BENZO(A)PYRENE	0.1	0.7	8	0.31 - 42	0.035 U
BENZO(B)FLUORANTHENE	NC	NC	2.4	0.012 - 30	0.035 U
BENZO(G,H,I)PERYLENE	2500	52000	32000	0.21 - 21	0.035 U

Table 4-3. Soil Analytical Results for LOC 3 - SVOCs (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0012
	RSCTL	ISCTL	LSCTL	Combined Soil[(1)]	10/12/2018 0-0.5 ft bls
BENZO(K)FLUORANTHENE	NC	NC	24	0.1 - 27	0.035 U
BENZOIC ACID	NC	NC	NC	NC	0.38 U
BENZYL ALCOHOL	NC	NC	NC	NC	0.035 U
BIS(2-CHLOROETHOXY)METHANE	250	5700	63	NC	0.035 U
BIS(2-CHLOROETHYL)ETHER	0.3	0.5	0.0001	NC	0.035 U
BIS(2-ETHYLHEXYL)PHTHALATE	72	390	3600	NC	0.035 U
BUTYL BENZYL PHTHALATE	17000	380000	310	NC	0.035 U
CAPROLACTAM	NC	NC	NC	NC	0.035 U
CARBAZOLE	49	240	0.2	NC	0.035 U
CHRYSENE	NC	NC	77	0.024 - 47	0.035 U
DECANE	NC	NC	NC	NC	0.035 U
DIBENZO(A,H)ANTHRACENE	NC	NC	0.7	NC	0.035 U
DIBENZOFURAN	320	6300	15	NC	0.035 U
DIETHYL PHTHALATE	61000	1000000	86	NC	0.035 U
DIMETHYL PHTHALATE	690000	1000000	380	NC	0.035 U
DI-N-BUTYL PHTHALATE	8200	170000	47	NC	0.035 U
DI-N-OCTYL PHTHALATE	1700	39000	480000	NC	0.035 U
FLUORANTHENE	3200	59000	1200	0.042 - 150	0.035 U
FLUORENE	2600	33000	160	NC	0.035 U
HEXACHLOROBENZENE	0.4	1.2	2.2	NC	0.11 U
HEXACHLOROBUTADIENE	6.2	13	1	NC	0.035 U
HEXACHLOROCYCLOPENTADIENE	9.5	50	400	NC	0.071 U
HEXACHLOROETHANE	38	87	0.2	NC	0.11 U
HEXADECANE	NC	NC	NC	NC	0.035 U
INDENO(1,2,3-CD)PYRENE	NC	NC	6.6	0.2 - 21	0.035 U
ISOPHORONE	540	1200	0.2	NC	0.035 U
NAPHTHALENE	55	300	1.2	NC	0.035 U
NITROBENZENE	18	140	0.02	NC	0.035 U
N-NITROSODIMETHYLAMINE	NC	NC	NC	NC	0.071 U
N-NITROSO-DI-N-PROPYLAMINE	0.08	0.2	5E-05	NC	0.12 U
N-NITROSODIPHENYLAMINE	180	730	0.4	NC	0.035 U
OCTADECANE	NC	NC	NC	NC	0.035 U
PENTACHLOROPHENOL	7.2	28	0.03	NC	0.071 U
PHENANTHRENE	2200	36000	250	0.16 - 74	0.035 U
PHENOL	500	220000	0.05	NC	0.035 U
PYRENE	2400	45000	880	0.031 - 95	0.035 U
PYRIDINE	NC	NC	NC	NC	0.16 U
SULFOLANE	NC	NC	NC	NC	0.035 U

1 Combined Soil Background Values are applicable for samples collected from all LOCs.

FDEP = Florida Department of Environmental Protection.

ft bls = Feet below land surface.

ISCTL = Industrial SCTL.

LOC = Location of Concern.

LSCTL = Leachability SCTL.

mg/kg = Milligrams per kilogram.

NC = No criterion.

RSCTL = Residential SCTL.

SCTL = Soil Cleanup Target Level.

SVOC = Semivolatile Organic Compound.

U = Compound not detected at or above the Method Detection Limit (associated value).

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	AS0001		CS0001	CS0004	CS0005	CS0006	CS0007	SB0011
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	4/25/2019		2/6/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	8/10/2018
					0-0.2 ft bls	0.8 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.17 U	0.018 U	0.003 U	0.019 U	0.02 U	0.02 U	0.02 U	0.0066 U
AROCLOR-1221	NC	NC	NC	NC	0.36 U	0.038 U	0.008 U	0.039 U	0.04 U	0.04 U	0.04 U	0.0087 U
AROCLOR-1232	NC	NC	NC	NC	0.19 U	0.02 U	0.011 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U
AROCLOR-1242	NC	NC	NC	NC	0.3 U	0.032 U	0.009 U	0.033 U	0.03 U	0.03 U	0.03 U	0.0064 U
AROCLOR-1248	NC	NC	NC	NC	0.31 U	0.022 U	0.003 U	0.023 U	0.02 U	0.02 U	0.02 U	0.0067 U
AROCLOR-1254	NC	NC	NC	NC	0.1 U	0.011 U	0.002 U	0.011 U	0.01 U	0.01 U	0.01 U	0.0052 U
AROCLOR-1260	NC	NC	NC	NC	0.17 U	0.017 U	**0.061**	**0.084**	**0.1**	0.02 U	0.02 U	**0.66**
TOTAL AROCLOR	0.5	2.6	17	49	0.36 U	0.038 U	**0.061**	**0.084**	**0.1**	0.04 U	0.04 U	**0.66 R**
TPH (MG/KG)												
TPH	460	2700	340	NC	--	--	--	--	--	--	--	**48**

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0012			SB0013	SB0014	SB0015		SB0016
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	8/10/2018	10/12/2018	2/6/2019	8/10/2018	8/10/2018	8/10/2018	8/12/2018	8/10/2018
					0-0.5 ft bls	0.5-2.0 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.065 U	0.52 U	0.0025 U	0.0067 U	0.0067 U	0.064 U	0.0028 U	0.0064 U
AROCLOR-1221	NC	NC	NC	NC	0.086 U	1.7 U	0.0084 U	0.0088 U	0.0088 U	0.084 U	0.0092 U	0.0084 U
AROCLOR-1232	NC	NC	NC	NC	0.1 U	2.4 U	0.012 U	0.01 U	0.01 U	0.099 U	0.013 U	0.0099 U
AROCLOR-1242	NC	NC	NC	NC	0.063 U	1.8 U	0.0086 U	0.0064 U	0.0065 U	0.062 U	0.0095 U	0.0062 U
AROCLOR-1248	NC	NC	NC	NC	0.066 U	0.72 U	0.0035 U	0.0068 U	0.0068 U	0.065 U	0.0038 U	0.0065 U
AROCLOR-1254	NC	NC	NC	NC	0.051 U	0.46 U	0.0022 U	0.0052 U	0.0052 U	0.05 U	0.0024 U	0.005 U
AROCLOR-1260	NC	NC	NC	NC	**14**	**99**	**42**	**0.65**	**2.5**	**10**	**0.14**	**1**
TOTAL AROCLOR	0.5	2.6	17	49	**14 RI**	**99 RI**	**42 RIL**	**0.65 R**	**2.5 R**	**10 RI**	**0.14**	**1 R**
TPH (MG/KG)												
TPH	460	2700	340	NC	**83**	**--**	**--**	**17 I**	**21 I**	**11 I**	**--**	**43**

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0017		SB0018	SB0019	SB0020	SB0254	SB0255	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	8/10/2018	8/12/2018	8/10/2018	8/10/2018	8/10/2018	8/12/2018	8/12/2018	8/12/2018
					0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.032 U	0.0028 U	0.0062 U	0.0064 U	0.0065 U	0.003 U	0.025 U J3	0.003 U
AROCLOR-1221	NC	NC	NC	NC	0.042 U	0.0094 U	0.0082 U	0.0085 U	0.0086 U	0.009 U	0.083 U	0.008 U
AROCLOR-1232	NC	NC	NC	NC	0.049 U	0.013 U	0.0096 U	0.01 U	0.01 U	0.012 U	0.11 U	0.011 U
AROCLOR-1242	NC	NC	NC	NC	0.031 U	0.0097 U	0.006 U	0.0062 U	0.0063 U	0.009 U	0.085 U	0.009 U
AROCLOR-1248	NC	NC	NC	NC	0.032 U	0.0039 U	0.0063 U	0.0066 U	0.0066 U	0.004 U	0.034 U	0.003 U
AROCLOR-1254	NC	NC	NC	NC	0.025 U	0.0025 U	0.0049 U	0.005 U	0.0051 U	0.002 U	0.022 U	**0.18**
AROCLOR-1260	NC	NC	NC	NC	**7.4**	**0.05**	**1.1**	**0.073**	**0.014 I**	**0.25**	**2.4 J3**	0.001 U
TOTAL AROCLOR	0.5	2.6	17	49	**7.4 RI**	**0.05**	**1.1 R**	**0.073**	**0.014**	**0.25**	**2.4 J3 R**	**0.18**
TPH (MG/KG)												
TPH	460	2700	340	NC	5.9 U	--	**32**	**120**	**25**	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0256		SB0257	SB0258			SB0259		
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	8/12/2018	8/12/2018	8/12/2018	8/12/2018	8/12/2018	4/25/2019	8/12/2018	8/12/2018	4/25/2019
					0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	2.0-3.0 ft	0-0.5 ft bls	0.5-2.0 ft bls	2.0-3.0 ft bls
PCBS (MG/KG)													
AROCLOR-1016	NC	NC	NC	NC	0.0027 U	0.003 U	0.003 U J3	0.0025 U	0.0025 U	0.017 U	0.05 U	0.003 U	0.02 U
AROCLOR-1221	NC	NC	NC	NC	0.009 U	0.009 U	0.008 U	0.0084 U	0.0084 U	0.035 U	0.17 U	0.009 U	0.04 U
AROCLOR-1232	NC	NC	NC	NC	0.012 U	0.012 U	0.012 U	0.011 U	0.012 U	0.018 U	0.23 U	0.012 U	0.02 U
AROCLOR-1242	NC	NC	NC	NC	0.0093 U	0.009 U	0.009 U	0.0086 U	0.0087 U	0.029 U	0.17 U	0.009 U	0.03 U
AROCLOR-1248	NC	NC	NC	NC	0.0037 U	0.004 U	0.004 U	0.0034 U	0.0035 U	0.02 U	0.07 U	0.004 U	0.02 U
AROCLOR-1254	NC	NC	NC	NC	0.0024 U	0.002 U	0.002 U	0.0022 U	0.0022 U	0.01 U	0.04 U	0.002 U	0.01 U
AROCLOR-1260	NC	NC	NC	NC	**0.22**	**0.027**	**0.021**	**0.046**	0.0013 U	0.016 U	**7.6**	**0.32**	**0.15**
TOTAL AROCLOR	0.5	2.6	17	49	**0.22**	**0.027**	**0.021**	**0.046**	0.012 U	0.035 U	**7.6 RI**	**0.32**	**0.15**
TPH (MG/KG)													
TPH	460	2700	340	NC	--	--	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0260			SB0261		SB0262	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	10/13/2018	10/13/2018	4/25/2019	10/13/2018	10/13/2018	10/13/2018	10/13/2018
					0-0.5 ft bls	0.5-2.0 ft bls	2.0-3.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)											
AROCLOR-1016	NC	NC	NC	NC	0.03 U	0 U	0.018 U	0.002 U	0.0024 U	0.048 U	0.003 U
AROCLOR-1221	NC	NC	NC	NC	0.09 U	0.01 U	0.037 U	0.008 U	0.0081 U	0.16 U	0.008 U
AROCLOR-1232	NC	NC	NC	NC	0.12 U	0.01 U	0.02 U	0.011 U	0.011 U	0.22 U	0.011 U
AROCLOR-1242	NC	NC	NC	NC	0.09 U	0.01 U	0.032 U	0.008 U	0.0083 U	0.17 U	0.008 U
AROCLOR-1248	NC	NC	NC	NC	0.04 U	0 U	0.022 U	0.003 U	0.0033 U	0.066 U	0.003 U
AROCLOR-1254	NC	NC	NC	NC	0.02 U	0 U	0.011 U	0.002 U	0.0021 U	0.042 U	0.002 U
AROCLOR-1260	NC	NC	NC	NC	**0.39**	**0.26**	**0.45**	**0.006 I**	0.0012 U	**9.4**	**0.23**
TOTAL AROCLOR	0.5	2.6	17	49	**0.39**	**0.26**	**0.45**	**0.006 I**	0.011 U	**9.4 RI**	**0.23**
TPH (MG/KG)											
TPH	460	2700	340	NC	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0263	SB0264		SB0265		SB0266		
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	10/13/2018	10/13/2018	10/13/2018	10/13/2018	10/13/2018	2/6/2019	4/25/2019	4/25/2019
					0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.013 U	0.013 U	0.002 U	0.1 U	0.003 U	0.003 U	0.02 U	0.017 U
AROCLOR-1221	NC	NC	NC	NC	0.044 U	0.042 U	0.008 U	0.34 U	0.008 U	0.008 U	0.03 U	0.035 U
AROCLOR-1232	NC	NC	NC	NC	0.06 U	0.058 U	0.011 U	0.46 U	0.011 U	0.011 U	0.02 U	0.018 U
AROCLOR-1242	NC	NC	NC	NC	0.045 U	0.044 U	0.008 U	0.34 U	0.009 U	0.009 U	0.03 U	0.029 U
AROCLOR-1248	NC	NC	NC	NC	0.018 U	0.018 U	0.003 U	0.14 U	0.003 U	0.003 U	0.02 U	0.02 U
AROCLOR-1254	NC	NC	NC	NC	0.011 U	0.011 U	0.002 U	0.088 U	0.002 U	**19**	**3.2**	**0.52 R**
AROCLOR-1260	NC	NC	NC	NC	**0.28**	**2.5**	**0.078**	**12**	**0.11**	0.001 U	0.02 U	0.016 U
TOTAL AROCLOR	0.5	2.6	17	49	**0.28**	**2.5 R**	**0.078**	**12 RI**	**0.11**	**19 RIL**	**3.2 RI**	**0.52 R**
TPH (MG/KG)												
TPH	460	2700	340	NC	--	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0267	SB0268	SB0269	SB0270	SB0271	SB0283	SB0284	SB0285	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	2/6/2019	2/6/2019	2/6/2019	2/6/2019	2/6/2019	2/6/2019	2/6/2019	4/25/2019	4/25/2019
					0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)													
AROCLOR-1016	NC	NC	NC	NC	0.002 U	0.003 U	0.0025 U	0.0025 U	0.003 U	0.0028 U	0.003 U	0.017 U	0.02 U
AROCLOR-1221	NC	NC	NC	NC	0.008 U	0.008 U	0.0084 U	0.0084 U	0.008 U	0.0092 U	0.008 U	0.035 U	0.04 U
AROCLOR-1232	NC	NC	NC	NC	0.011 U	0.011 U	0.012 U	0.012 U	0.011 U	0.013 U	0.011 U	0.019 U	0.02 U
AROCLOR-1242	NC	NC	NC	NC	0.008 U	0.009 U	0.0086 U	0.0086 U	0.008 U	0.0094 U	0.009 U	0.03 U	0.03 U
AROCLOR-1248	NC	NC	NC	NC	0.003 U	0.003 U	0.0035 U	0.0035 U	0.003 U	0.0038 U	0.003 U	0.021 U	0.02 U
AROCLOR-1254	NC	NC	NC	NC	0.002 U	0.002 U	**0.5**	0.0022 U	0.002 U	0.0024 U	0.002 U	**0.55**	0.01 U
AROCLOR-1260	NC	NC	NC	NC	**2.6**	**8**	0.0013 U	**0.12**	**1.3**	**0.025**	**0.71**	0.016 U	0.02 U
TOTAL AROCLOR	0.5	2.6	17	49	**2.6 R**	**8 RI**	**0.5 R**	**0.12**	**1.3 R**	**0.025**	**0.71 R**	**0.55 R**	0.04 U
TPH (MG/KG)													
TPH	460	2700	340	NC	--	--	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0286	SB0287	SB0288	SB0289		SB0290	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019
					0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)											
AROCLOR-1016	NC	NC	NC	NC	0.017 U	0.017 U	0.017 U	0.02 U	0.017 U	0.017 U	0.02 U
AROCLOR-1221	NC	NC	NC	NC	0.034 U	0.035 U	0.034 U	0.04 U	0.035 U	0.035 U	0.04 U
AROCLOR-1232	NC	NC	NC	NC	0.018 U	0.019 U	0.018 U	0.02 U	0.019 U	0.018 U	0.02 U
AROCLOR-1242	NC	NC	NC	NC	0.029 U	0.03 U	0.029 U	0.03 U	0.03 U	0.029 U	0.03 U
AROCLOR-1248	NC	NC	NC	NC	0.02 U	0.021 U	0.02 U	0.02 U	0.021 U	0.02 U	0.02 U
AROCLOR-1254	NC	NC	NC	NC	0.0099 U	0.01 U	0.01 U	**3**	0.01 U	**0.27**	**0.4**
AROCLOR-1260	NC	NC	NC	NC	**0.68**	**2**	**0.61**	0.03 U	0.016 U	0.016 U	0.02 U
TOTAL AROCLOR	0.5	2.6	17	49	**0.68 R**	**2 R**	**0.61 R**	**3 RI**	0.035 U	**0.27**	**0.4**
TPH (MG/KG)											
TPH	460	2700	340	NC	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0291		SB0292		SB0293		SB0294	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019
					0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.018 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.017 U
AROCLOR-1221	NC	NC	NC	NC	0.038 U	0.04 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U	0.035 U
AROCLOR-1232	NC	NC	NC	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.018 U
AROCLOR-1242	NC	NC	NC	NC	0.032 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
AROCLOR-1248	NC	NC	NC	NC	0.023 U	0.02 U	0.02 U	**0.02**	0.02 U	0.03 U	0.02 U	0.021 U
AROCLOR-1254	NC	NC	NC	NC	0.011 U	0.01 U	**0.27**	**1.9**	**0.53**	**2.1**	**0.9**	0.33 U
AROCLOR-1260	NC	NC	NC	NC	**0.79**	**1.1**	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.016 U
TOTAL AROCLOR	0.5	2.6	17	49	**0.79 R**	**1.1 R**	**0.27**	**1.9 R**	**0.53 R**	**2.1 R**	**0.9 R**	0.33 U
TPH (MG/KG)												
TPH	460	2700	340	NC	--	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0295		SB0296		SB0297		SB0298	
	RSCTL	ISCTL	LSCTL	Combined Soil[1]	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019	4/25/2019
					0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0.5-2.0 ft bls
PCBS (MG/KG)												
AROCLOR-1016	NC	NC	NC	NC	0.02 U	0.017 U	0.017 U	0.017 U	0.02 U	0.017 U	0.017 U	0.017 U
AROCLOR-1221	NC	NC	NC	NC	0.03 U	0.035 U	0.034 U	0.035 U	0.04 U	0.036 U	0.035 U	0.036 U
AROCLOR-1232	NC	NC	NC	NC	0.02 U	0.019 U	0.018 U	0.018 U	0.02 U	0.019 U	0.019 U	0.019 U
AROCLOR-1242	NC	NC	NC	NC	0.03 U	0.03 U	0.029 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
AROCLOR-1248	NC	NC	NC	NC	0.02 U	0.021 U	0.02 U	0.021 U	0.02 U	0.021 U	0.021 U	0.021 U
AROCLOR-1254	NC	NC	NC	NC	**0.3**	**0.37**	**0.49**	**13**	**0.94**	0.01 U	**0.19**	**0.38**
AROCLOR-1260	NC	NC	NC	NC	0.02 U	0.016 U	0.015 U	0.016 U	0.02 U	0.016 U	0.016 U	0.016 U
TOTAL AROCLOR	0.5	2.6	17	49	**0.3**	**0.37**	**0.49**	**13 RI**	**0.94 R**	0.036 U	**0.19**	**0.38**
TPH (MG/KG)												
TPH	460	2700	340	NC	--	--	--	--	--	--	--	--

Table 4-4. Soil Analytical Results for LOC 3 - PCBs and TPH (continued)

PARAMETER	FDEP SCTLs			KSC Background/ Reference Values (Max Range)	SB0299	
	RSCTL	ISCTL	LSCTL	Combined Soil[(1)]	4/25/2019 0-0.5 ft bls	4/25/2019 0.5-2.0 ft bls
PCBS (MG/KG)						
AROCLOR-1016	NC	NC	NC	NC	0.018 U	0.018 U
AROCLOR-1221	NC	NC	NC	NC	0.036 U	0.036 U
AROCLOR-1232	NC	NC	NC	NC	0.019 U	0.019 U
AROCLOR-1242	NC	NC	NC	NC	0.031 U	0.031 U
AROCLOR-1248	NC	NC	NC	NC	0.022 U	0.022 U
AROCLOR-1254	NC	NC	NC	NC	0.01 U	0.01 U
AROCLOR-1260	NC	NC	NC	NC	0.016 U	0.016 U
TOTAL AROCLOR	0.5	2.6	17	49	0.036 U	0.036 U
TPH (MG/KG)						
TPH	460	2700	340	NC	--	--

1 Combined Soil Background Values are applicable for samples collected from all LOCs.
Bold value indicates that parameter was detected.
FDEP SCTLs = Florida Department of Environmental Protection Soil Cleanup Target Levels.
ft bls = Feet below land surface.
ISCTL = Industrial SCTL.
LOC = Location of Concern.
LSCTL = Leachability SCTL.
mg/kg = Milligrams per kilogram.
NC = No criterion.
RSCTL = Residential SCTL.
TPH = Total petroleum hydrocarbons.
"--" = Not analyzed.
R = Detection exceeds the FDEP SCTL Residential criterion.
I = Result is between the Method Detection Limit and limit of quantitation.
J = Estimated result.
J3 = Estimated result. Spike recovery or RPD outside of criteria.
U = Compound not detected at or above the Method Detection Limit (associated value).

Table 4-49. SPLP Results

PARAMETER	FDEP GCTL	LOC 2	LOC 3		LOC 16	
		SB0006	SB0012	SB0266	SB0078	SB0078
		10/12/2018	2/6/2019	4/25/2019	10/22/2018	4/25/2019
		0-0.5 ft bls	0.5-2.0 ft bls	0-0.5 ft bls	0-0.5 ft bls	0-0.5 ft bls
SPLP PCBs (µg/L)						
AROCLOR-1016	NC	0.048 U	0.054 U	0.25 U	--	--
AROCLOR-1221	NC	0.22 U	0.25 U	0.14 U	--	--
AROCLOR-1232	NC	0.41 U	0.46 U	0.37 U	--	--
AROCLOR-1242	NC	0.18 U	0.2 U	0.16 U	--	--
AROCLOR-1248	NC	0.02 U	0.022 U	0.13 U	--	--
AROCLOR-1254	NC	0.31 U	0.35 U	**0.32 I**	--	--
AROCLOR-1260	NC	0.034 U	**6.1**	0.31 U	--	--
TOTAL AROCLOR	0.5	0.41 U	**6.1 G**	**0.32 I**	--	--
SPLP TPH (µg/L)						
TPH	5000	--	--	--	110 UJ3	--
SPLP SVOCs (µg/L)						
Carbazole	1.8	--	--	--	--	0.12 U
1-Methylnaphthalene	28	--	--	--	--	0.62 U
2-Methylnaphthalene	28	--	--	--	--	0.64 U
Acenaphthene	20	--	--	--	--	0.24 U
Acenaphthylene	210	--	--	--	--	0.08 U
Anthracene	2100	--	--	--	--	0.09 U
Benzo[a]anthracene	0.05	--	--	--	--	**0.18 I G**
Benzo[a]pyrene	0.2	--	--	--	--	**0.25 I G**
Benzo[b]fluoranthene	0.05	--	--	--	--	**0.43 I G**
Benzo[g,h,i]perylene	210	--	--	--	--	0.24 I
Benzo[k]fluoranthene	0.5	--	--	--	--	0.18 I
Chrysene	4.8	--	--	--	--	0.33 I
Dibenz(a,h)anthracene	0.005	--	--	--	--	0.07 U
Fluoranthene	280	--	--	--	--	0.64 I
Fluorene	280	--	--	--	--	0.24 U
Indeno[1,2,3-cd]pyrene	0.05	--	--	--	--	**0.19 I G**
Naphthalene	14	--	--	--	--	1.3 U
Phenanthrene	210	--	--	--	--	0.83 U
Pyrene	210	--	--	--	--	0.49

Bold value indicates that parameter was detected. Highlighted cell indicates concentration is greater than GCTL.
-- = Parameter not analyzed in sample.

FDEP GCTLs = Florida Department of Environmental Protection Groundwater Cleanup Target Levels.

ft bls = Feet below land surface.

LOC = Location of Concern.

NC = No criterion.

RPD = Relative Percent Difference.

ug/L = micrograms per Liter.

G = Concentration is greater than GCTL.

U = Compound not detected at or above the Method Detection Limit (associated value).

I = Result is between the Method Detection Limit and limit of quantitation.

J = Estimated result.

J3 = Estimated result. Spike recovery or RPD outside of criteria.

Table 4-50. Monitoring Well Groundwater Analytical Results

PARAMETER	GCTL	LOC 3	
		SAEE-MW0001-008.0-20190522	
		5/22/2019	
PCBs (µg/L)			
AROCLOR 1016	NC	0.25	U
AROCLOR 1221	NC	0.14	U
AROCLOR 1232	NC	0.37	U
AROCLOR 1242	NC	0.16	U
AROCLOR 1248	NC	0.13	U
AROCLOR 1254	NC	0.12	U
AROCLOR 1260	NC	0.31	U
TOTAL PCBs	0.5	0.37	U

GCTLs = Groundwater Cleanup Target Levels.
ft bls = Feet below land surface.
LOC = Location of Concern.
G = Concentration is greater than the GCTL.
U = Compound not detected at or above the method detection limit (associated value).
µg/L = Micrograms per liter.

FIGURE 4-1 TOTAL AROCLOR SOIL RESULTS AT LOC 3 - 0-0.5 FOOT BLS

PRL 227 KENNEDY SPACE CENTER, FLORIDA

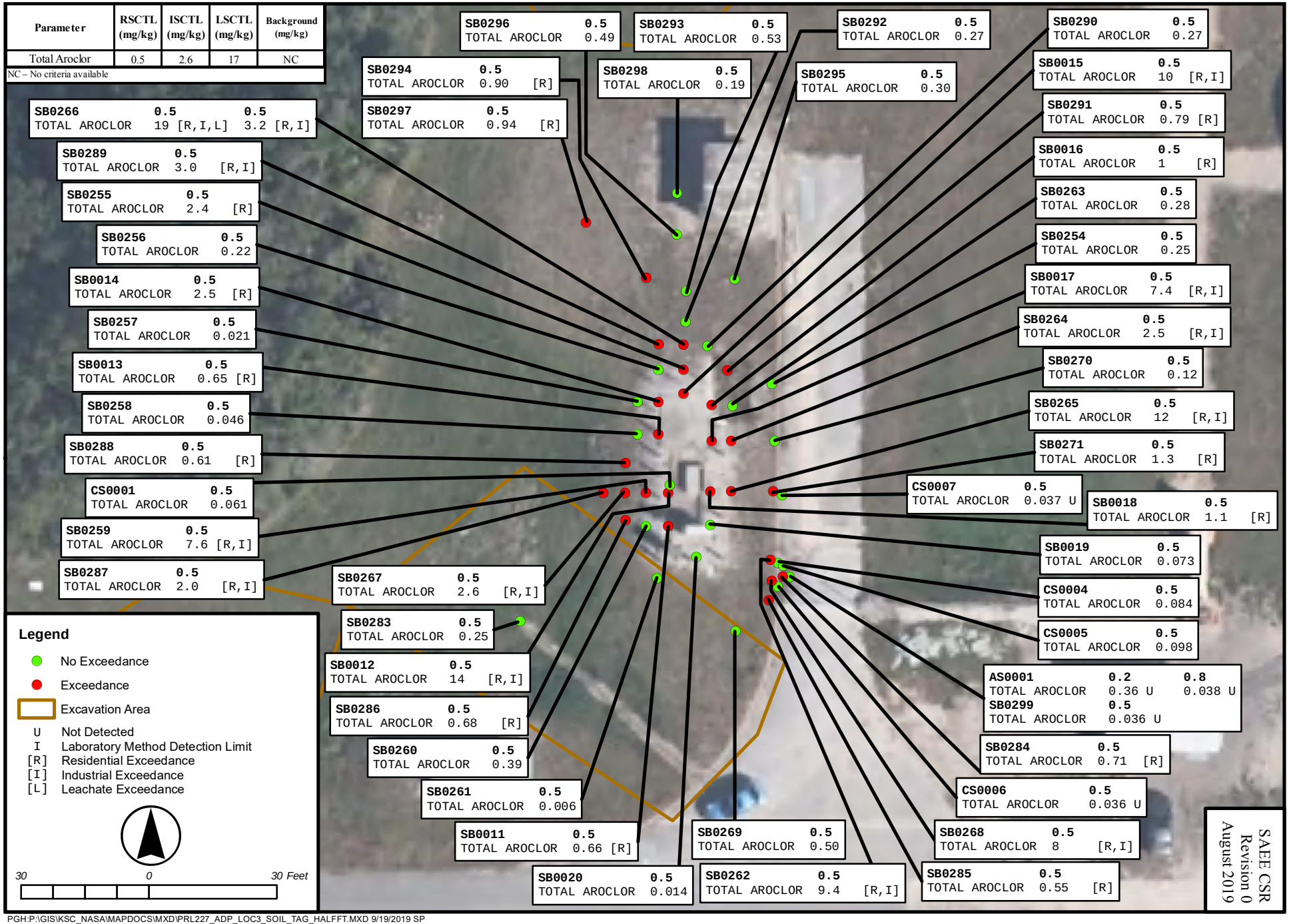


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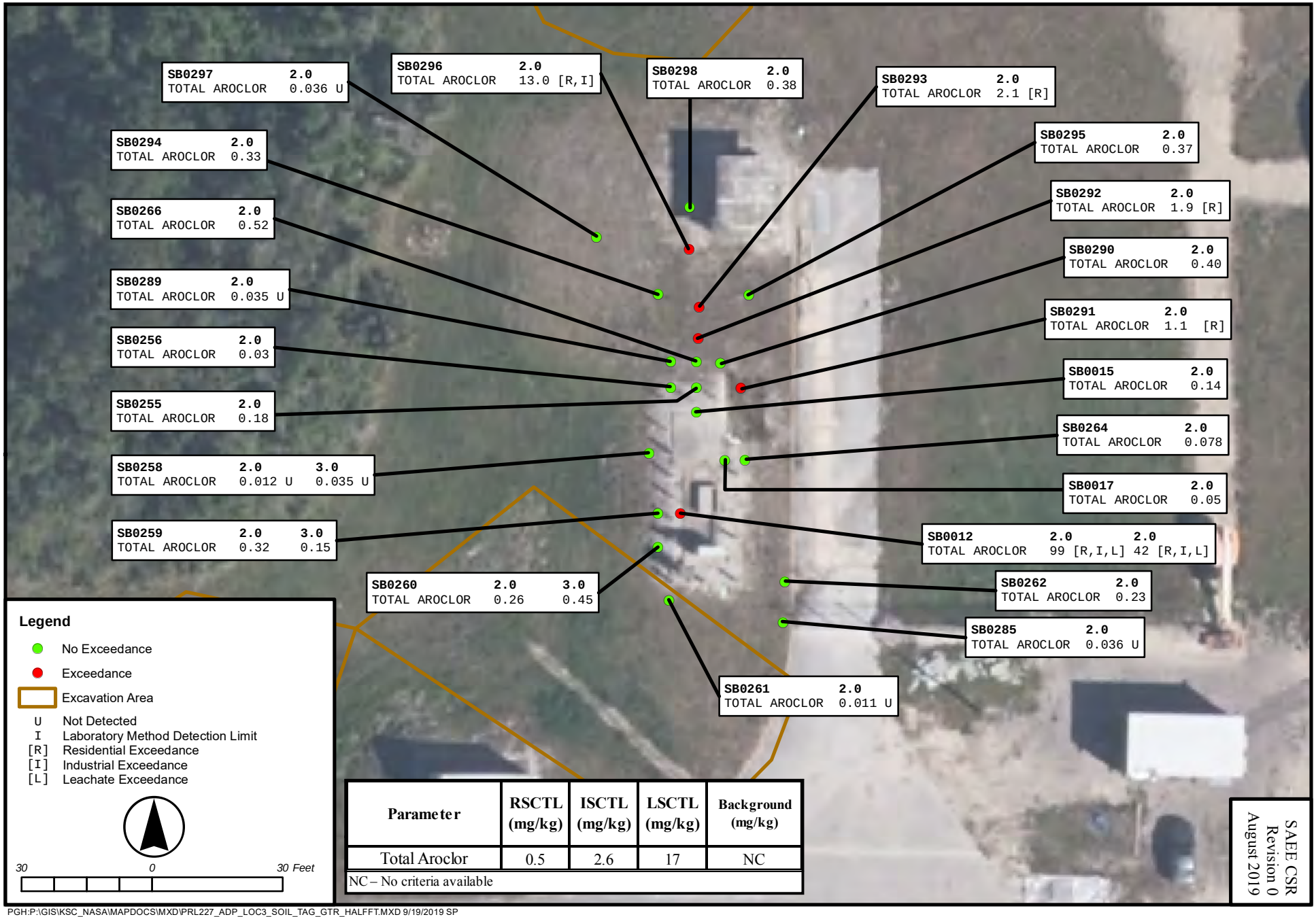
FIGURE 4-2 TOTAL AROCLOR SOIL RESULTS AT LOC 3 - GREATER THAN 0.5 FOOT BLS

PRL 227 KENNEDY SPACE CENTER, FLORIDA



Parameter	RSCTL (mg/kg)	ISCTL (mg/kg)	LSCTL (mg/kg)	Background (mg/kg)
Total Aroclor	0.5	2.6	17	NC

NC – No criteria available

SAEE CSR
Revision 0
August 2019

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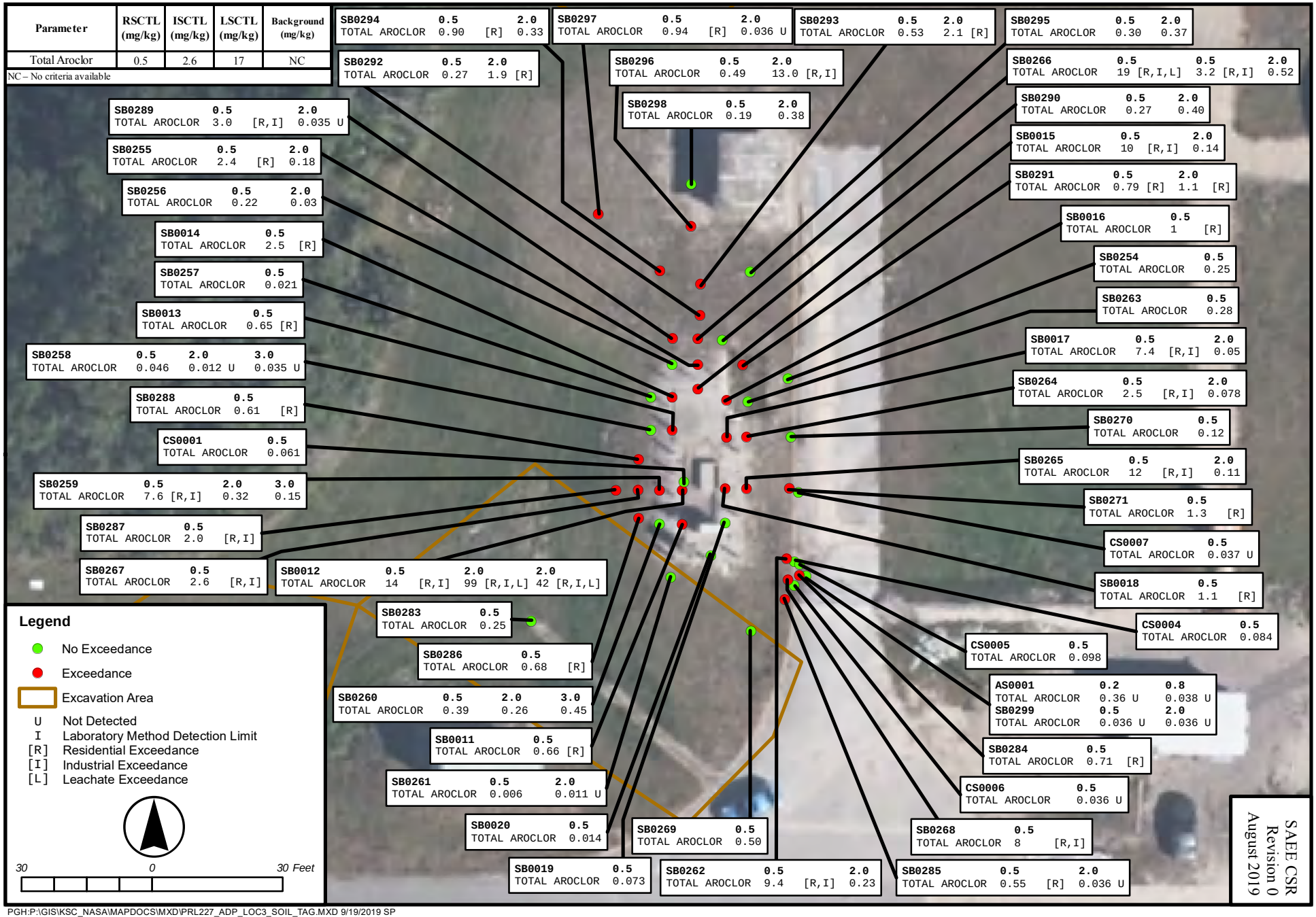
FIGURE 4-3 TOTAL AROCLOR SOIL RESULTS AT LOC 3 - ALL DEPTHS

PRL 227 KENNEDY SPACE CENTER, FLORIDA



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SECTION V

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The CS investigation included collection of 347 soil samples, 7 concrete samples, 1 asphalt sample, 1 road base sample, 4 composite samples of asphalt, road base, and soil, and installation of one monitoring well and collection of one groundwater sample for laboratory analysis. CS samples at LOC 30 could not be collected due to operational constraints, and sample collection is delayed until operations at the Aft Skirt Test facility are complete. CS samples at LOC 33 were collected in 2016 as part of the PRL192, Logistics Facility, CS, and NFA was approved for this LOC by FDEP based on the results this sampling. At 41 of the 49 LOCs, including LOCs 1, 4 to 15, 17 to 24, 26 to 28, 31, 32, 34 to 39, and 41 to 49, analytes were detected in soil samples at concentrations less than SCTLs. At three other LOCs, analytes were initially detected in one soil sample each at LOCs 2, 25, and 40 at concentrations greater than SCTLs; however, additional sampling at these LOCs did not confirm the exceedances and therefore the initial SCTL exceedances are not of concern.

At LOCs 3, 16, and 29, analytes were detected in soil samples at concentrations greater than SCTLs, and additional sampling at these LOCs confirmed the exceedances. At LOC 3, total PCB concentrations exceeded residential, industrial, and leachability SCTLs. Groundwater sampling at LOC 3 indicates that leachability to groundwater is not of concern, and concrete, road base material, and asphalt samples from LOC 3 indicate these media are not impacted by PCBs. However, total PCB SCTL exceedances in soil at LOC 3 have not been delineated, and additional CS sampling is necessary as proposed in Section 5.2. At LOC 16, total PCB concentrations in soil exceeded the residential SCTL, and the exceedances have been delineated. Several PAHs were detected in soil at concentrations greater than industrial and leachability SCTLs at LOC 16; however, the soil concentrations are less than P/T reference values and therefore not of concern. At LOC 29, TRPH and total PCB concentrations in soil exceeded SCTLs. TRPH fraction results at LOC 29 were less than SCTLs, indicating that TRPH SCTL

exceedances are not of concern. Additional samples collected at LOC 29 have horizontally delineated total PCB exceedances; however, vertical delineation could not be completed due to energized equipment and potential interference with utility locating equipment near the pad.

5.2 RECOMMENDATIONS

Based on the results of the CS, it is recommended that additional CS sampling be completed at LOC 3 to delineate total PCB residential SCTL exceedances and that LOCs 16 and 29 proceed to soil IMs to address residential SCTL exceedances. The soil IM Work Plan (IMWP) for LOCs 16 and 29 is presented in Appendix E. The Supplemental CS Work Plan for LOC 3 is provided in Appendix F. LOC 30 will be sampled once operations at the Aft Skirt Test facility are complete. CS sample locations for LOC 30 can be found in the CSWP (NASA, 2015). The KSCRT reached consensus on these recommendations including the Supplemental CS sampling for LOC 3 and IMWP for LOCs 16 and 29 at the June 2019 Team Meeting (Meeting Minute 1906-10, Decision 1906-D59). The June 2019 ADP is presented in Appendix D.

Because of the need for additional activities at LOCs 3, 16, 29, and 30, it is recommended that LOCs 3, 16, 29, and 30 be removed from PRL 227 and become separate PRLs, as follows:

PRL 227 LOC Designation	New PRL Designation
LOC 3 – LBS 35	PRL 227a
LOC 16 – LBS 46	PRL 227b
LOC 29 – LBS 730	PRL 227c
LOC 30 – SS 1116A/1116B	PRL 227d

With the removal of LOCs 3, 16, 29 and 30 from PRL 227, NFA is recommended at PRL 227 based on absence of contamination at LOCs 1, 2, 4 to 15, 17 to 24, 25 to 28, 31, 32, 34 to 39, and 40 to 49. LOC 33 previously received NFA as part of PRL 192 and no additional investigation activities are necessary at this LOC.

SECTION VI

REFERENCES

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APPENDIX F

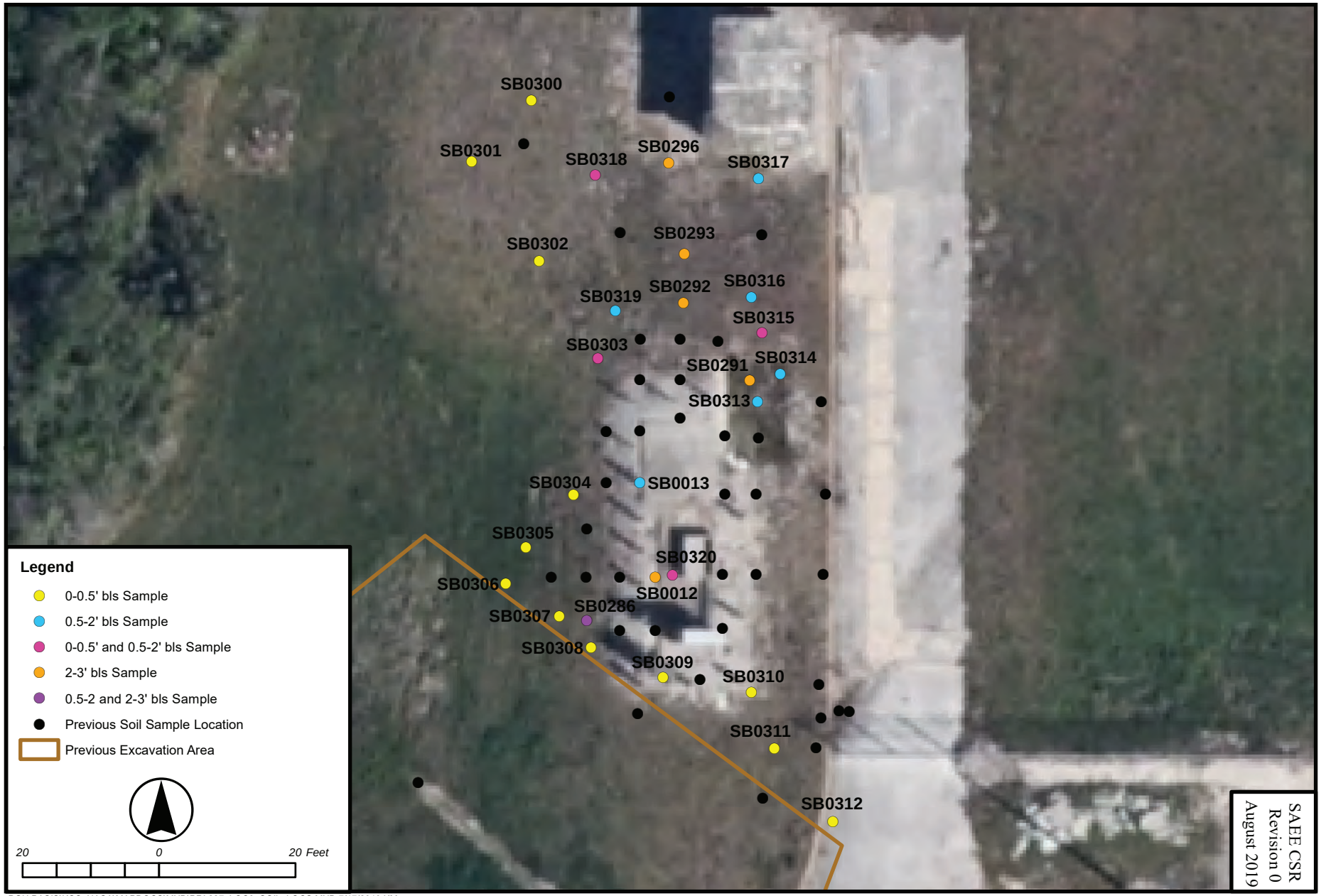
SUPPLEMENTAL CS WORK PLAN

Table F-1. LOC 3 Additional CS Soil Samples

Sample Location (SAEE-)	Sample Depth (ft bls)			Analyses	Notes
	0-0.5	0.5-2	2-3	PCBs	
SB0012			X	X	--
SB0013		X		X	--
SB0286		X	HOLD	X	--
SB0291			X	X	--
SB0292			X	X	--
SB0293			X	X	--
SB0296			X	X	--
SB0300	X			X	--
SB0301	X			X	--
SB0302	X			X	--
SB0303	X	X		X	--
SB0304	X			X	--
SB0305	X			X	--
SB0306	X			X	--
SB0307	X			X	--
SB0308	X			X	--
SB0309	X			X	--
SB0310	X			X	--
SB0311	X			X	--
SB0312	X			X	--
SB0313		X		X	--
SB0314		X		X	--
SB0315	X	X		X	--
SB0316		X		X	--
SB0317		X		X	--
SB0318	X	X		X	--
SB0319		X		X	--
SB0320	X	X	HOLD	X	Subslab samples

FIGURE F-1 LOC 3 ADDITIONAL CS SOIL SAMPLE LOCATIONS

PRL 227, KENNEDY SPACE CENTER, FLORIDA



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APPENDIX C

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Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.03.04

SGS Job Number: FA76374R

Sampling Date: 06/26/20

Report to:

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Sample Summary

Hydrogeologic, Inc.

Job No: FA76374R

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.03.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA76374-1R	06/26/20	12:30	SOPD	06/26/20	SO	Soil	SAEE-SB0306-000.5-20200626
FA76374-2R	06/26/20	12:33	SOPD	06/26/20	SO	Soil	SAEE-SB0302-000.5-20200626
FA76374-3R	06/26/20	12:38	SOPD	06/26/20	SO	Soil	SAEE-SB0303-000.5-20200626
FA76374-4R	06/26/20	12:40	SOPD	06/26/20	SO	Soil	SAEE-SB0303-002.0-20200626
FA76374-5R	06/26/20	12:43	SOPD	06/26/20	SO	Soil	SAEE-SB0304-000.5-20200626
FA76374-6R	06/26/20	12:48	SOPD	06/26/20	SO	Soil	SAEE-SB0307-000.5-20200626
FA76374-7R	06/26/20	12:50	SOPD	06/26/20	SO	Soil	SAEE-SB0308-000.5-20200626
FA76374-8R	06/26/20	12:53	SOPD	06/26/20	SO	Soil	SAEE-SB0309-000.5-20200626
FA76374-9R	06/26/20	12:56	SOPD	06/26/20	SO	Soil	SAEE-SB0286-002.0-20200626
FA76374-11R	06/26/20	13:05	SOPD	06/26/20	SO	Soil	SAEE-SB0310-000.5-20200626
FA76374-12R	06/26/20	13:08	SOPD	06/26/20	SO	Soil	SAEE-SB0311-000.5-20200626
FA76374-13	06/26/20	13:20	SOPD	06/26/20	AQ	Equipment Blank	SAEE-EB-20200626-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA76374R

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 7/30/2020 10:59:18

11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/26/2020 and were received at SGS North America Inc - Orlando on 06/26/2020 properly preserved, at 2.4 Deg. C and intact. These Samples received an SGS Orlando job number of FA76374R. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP28528

FA76374-1R: Analysis performed at SGS Dayton, NJ.
FA76374-2R: Analysis performed at SGS Dayton, NJ.
FA76374-3R: Analysis performed at SGS Dayton, NJ.
FA76374-4R: Analysis performed at SGS Dayton, NJ.
FA76374-5R: Analysis performed at SGS Dayton, NJ.
FA76374-6R: Analysis performed at SGS Dayton, NJ.
FA76374-7R: Analysis performed at SGS Dayton, NJ.
FA76374-8R: Analysis performed at SGS Dayton, NJ.
FA76374-9R: Analysis performed at SGS Dayton, NJ.
FA76374-11R: Analysis performed at SGS Dayton, NJ.
FA76374-12R: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services *(Signature on file)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No**	FA76374R
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	7/29/2020 2:23:52 PM

On 07/16/2020, 11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA76374R was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP28528

- Sample(s) FA76374-1RMS, FA76374-1RMSD, OP28528-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8082A: FA76374-11R, FA76374-12R, FA76374-1R, FA76374-2R, FA76374-3R, FA76374-4R, FA76374-5R, FA76374-6R, FA76374-7R, FA76374-8R, FA76374-9R

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA76374R
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/26/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA76374-1R	**SAEE-SB0306-000.5-20200626**					
Aroclor 1260 [a]		96.2	60	48	ug/kg	SW846 8082A
FA76374-2R	**SAEE-SB0302-000.5-20200626**					
Aroclor 1260 [a]		2680	57	45	ug/kg	SW846 8082A
FA76374-3R	**SAEE-SB0303-000.5-20200626**					
Aroclor 1254 [a]		311	52	42	ug/kg	SW846 8082A
Aroclor 1260 [a]		208	52	42	ug/kg	SW846 8082A
FA76374-4R	**SAEE-SB0303-002.0-20200626**					
No hits reported in this sample.						
FA76374-5R	**SAEE-SB0304-000.5-20200626**					
Aroclor 1260 [a]		156	48	38	ug/kg	SW846 8082A
FA76374-6R	**SAEE-SB0307-000.5-20200626**					
No hits reported in this sample.						
FA76374-7R	**SAEE-SB0308-000.5-20200626**					
Aroclor 1260 [a]		104	50	40	ug/kg	SW846 8082A
FA76374-8R	**SAEE-SB0309-000.5-20200626**					
Aroclor 1260 [a]		68.6	47	37	ug/kg	SW846 8082A
FA76374-9R	**SAEE-SB0286-002.0-20200626**					
No hits reported in this sample.						
FA76374-11R	**SAEE-SB0310-000.5-20200626**					
Aroclor 1260 [a]		3650	250	200	ug/kg	SW846 8082A
FA76374-12R	**SAEE-SB0311-000.5-20200626**					
Aroclor 1260 [a]		900	52	42	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA76374R
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/26/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA76374-13	**SAEE-EB-20200626-01**					

No hits reported in this sample.

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0306-000.5-20200626		
Lab Sample ID:	FA76374-1R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98089.D	1	07/17/20 17:44	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	60	57	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	96.2	60	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		29-139%
877-09-8	Tetrachloro-m-xylene	112%		29-139%
2051-24-3	Decachlorobiphenyl	115%		18-153%
2051-24-3	Decachlorobiphenyl	123%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0302-000.5-20200626		
Lab Sample ID:	FA76374-2R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98092.D	1	07/17/20 19:53	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	51	ug/kg	
11097-69-1	Aroclor 1254	45 U	57	45	31	ug/kg	
11096-82-5	Aroclor 1260	2680	57	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		29-139%
877-09-8	Tetrachloro-m-xylene	106%		29-139%
2051-24-3	Decachlorobiphenyl	109%		18-153%
2051-24-3	Decachlorobiphenyl	111%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0303-000.5-20200626		
Lab Sample ID:	FA76374-3R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	95.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195402.D	1	07/21/20 11:34	ANJ	07/16/20 16:00	N:OP28528	N:G2G5060
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	311	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	208	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		29-139%
877-09-8	Tetrachloro-m-xylene	96%		29-139%
2051-24-3	Decachlorobiphenyl	118%		18-153%
2051-24-3	Decachlorobiphenyl	119%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0303-002.0-20200626		
Lab Sample ID:	FA76374-4R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98098.D	1	07/17/20 23:06	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		29-139%
877-09-8	Tetrachloro-m-xylene	106%		29-139%
2051-24-3	Decachlorobiphenyl	109%		18-153%
2051-24-3	Decachlorobiphenyl	114%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0304-000.5-20200626		
Lab Sample ID:	FA76374-5R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98099.D	1	07/17/20 23:38	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	48	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	48	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	48	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	48	38	19	ug/kg	
12672-29-6	Aroclor 1248	45 U	48	45	42	ug/kg	
11097-69-1	Aroclor 1254	38 U	48	38	26	ug/kg	
11096-82-5	Aroclor 1260	156	48	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		29-139%
877-09-8	Tetrachloro-m-xylene	107%		29-139%
2051-24-3	Decachlorobiphenyl	109%		18-153%
2051-24-3	Decachlorobiphenyl	113%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0307-000.5-20200626		
Lab Sample ID:	FA76374-6R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98100.D	1	07/18/20 00:11	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	53	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		29-139%
877-09-8	Tetrachloro-m-xylene	114%		29-139%
2051-24-3	Decachlorobiphenyl	117%		18-153%
2051-24-3	Decachlorobiphenyl	120%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0308-000.5-20200626		
Lab Sample ID:	FA76374-7R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	95.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98101.D	1	07/18/20 00:43	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	24	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	104	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		29-139%
877-09-8	Tetrachloro-m-xylene	104%		29-139%
2051-24-3	Decachlorobiphenyl	110%		18-153%
2051-24-3	Decachlorobiphenyl	107%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0309-000.5-20200626		
Lab Sample ID:	FA76374-8R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	96.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98102.D	1	07/18/20 01:15	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	37 U	47	37	22	ug/kg	
11104-28-2	Aroclor 1221	37 U	47	37	29	ug/kg	
11141-16-5	Aroclor 1232	37 U	47	37	30	ug/kg	
53469-21-9	Aroclor 1242	37 U	47	37	19	ug/kg	
12672-29-6	Aroclor 1248	44 U	47	44	42	ug/kg	
11097-69-1	Aroclor 1254	37 U	47	37	25	ug/kg	
11096-82-5	Aroclor 1260	68.6	47	37	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	120%		29-139%
877-09-8	Tetrachloro-m-xylene	117%		29-139%
2051-24-3	Decachlorobiphenyl	120%		18-153%
2051-24-3	Decachlorobiphenyl	119%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0286-002.0-20200626		
Lab Sample ID:	FA76374-9R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98103.D	1	07/18/20 01:47	ANJ	07/16/20 16:00	N:OP28528	N:G5G2418
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		29-139%
877-09-8	Tetrachloro-m-xylene	116%		29-139%
2051-24-3	Decachlorobiphenyl	115%		18-153%
2051-24-3	Decachlorobiphenyl	122%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0310-000.5-20200626		
Lab Sample ID:	FA76374-11R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	95.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98160.D	1	07/20/20 14:38	ANJ	07/16/20 16:00	N:OP28528	N:G5G2420
Run #2 [a]	5G98162.D	5	07/20/20 15:43	ANJ	07/16/20 16:00	N:OP28528	N:G5G2420

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2	10.3 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	31	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	3650 [b]	250	200	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%	122%	29-139%
877-09-8	Tetrachloro-m-xylene	109%	120%	29-139%
2051-24-3	Decachlorobiphenyl	124%	139%	18-153%
2051-24-3	Decachlorobiphenyl	118%	108%	18-153%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0311-000.5-20200626		
Lab Sample ID:	FA76374-12R	**Date Sampled:**	06/26/20
Matrix:	SO - Soil	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98161.D	1	07/20/20 15:11	ANJ	07/16/20 16:00	N:OP28528	N:G5G2420
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	900	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	125%		29-139%
877-09-8	Tetrachloro-m-xylene	128%		29-139%
2051-24-3	Decachlorobiphenyl	153%		18-153%
2051-24-3	Decachlorobiphenyl	129%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-EB-20200626-01		
Lab Sample ID:	FA76374-13	**Date Sampled:**	06/26/20
Matrix:	AQ - Equipment Blank	**Date Received:**	06/26/20
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM63901.D	1	07/06/20 11:21	NM	07/02/20 08:19	OP80942	GMM1327
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.19 U	0.38	0.19	0.15	ug/l	
11104-28-2	Aroclor 1221	0.29 U	0.38	0.29	0.19	ug/l	
11141-16-5	Aroclor 1232	0.29 U	0.38	0.29	0.19	ug/l	
53469-21-9	Aroclor 1242	0.19 U	0.38	0.19	0.15	ug/l	
12672-29-6	Aroclor 1248	0.19 U	0.38	0.19	0.15	ug/l	
11097-69-1	Aroclor 1254	0.19 U	0.38	0.19	0.15	ug/l	
11096-82-5	Aroclor 1260	0.19 U	0.38	0.19	0.15	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		38-127%
2051-24-3	Decachlorobiphenyl	95%		25-137%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA76374

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 2

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HydroGeoLogic, Inc.
Address: 2405 N. Courtenay Pkwy STE203
City: Merritt Island State: FL Zip: 32953
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #:
Sampler(s) Name(s) (Printed)
Sampler 1: S. O'Bryant Sampler 2: P. Duttenhaver

Project Information

Project Name: TQN #118 NASA PALs (227)
Street: Kennedy Space Center
City: Brevard County State: FL
Project # NS1005.03.04
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	8032 PCBs	LAB HOLD	LAB USE ONLY
1	SAEE-SB0306-000.5-20200626	6/26	1230	SO	SO	1		X								X		
2	SAEE-SB0302-000.5-20200626	6/26	1233	SO	SO	1		X								X		
3	SAEE-SB0303-000.5-20200626	6/26	1238	SO	SO	1		X								X		
4	SAEE-SB0303-002.0-20200626	6/26	1240	SO	SO	1		X								X		
5	SAEE-SB0304-000.5-20200626	6/26	1243	SO	SO	1		X								X		
6	SAEE-SB0307-000.5-20200626	6/26	1248	SO	SO	1		X								X		
7	SAEE-SB0308-000.5-20200626	6/26	1250	SO	SO	1		X								X		
8	SAEE-SB0309-000.5-20200626	6/26	1253	SO	SO	1		X								X		
9	SAEE-SB0286-002.0-20200626	6/26	1256	SO	SO	1		X								X		
10	SAEE-SB0286-003.0-20200626	6/26	1258	SO	SO	1		X								X	X	
11	SAEE-SB0310-000.5-20200626	6/26	1305	SO	SO	1		X								X		
12	SAEE-SB0311-000.5-20200626	6/26	1308	SO	SO	1		X								X		

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

INITIAL ASSOCIATION AK
LABEL VERIFICATION AG

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	6/26 1534	2 JS 6/26 3:30	3 JS 6/26	4:32	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.4°C

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

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FA76374R: Chain of Custody
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FA76374

SGS North America Inc - Orlando

Chain of Custody

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TEL. 407-425-6700 FAX: 407-425-0707
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SGS - ORLANDO JOB # : PAGE 2 OF 2

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HydroGeoLogic, Inc.
Address: 2405 N. Courtenay Pkwy STE203
City: Merritt Island State: FL Zip: 32953
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #:
Sampler(s) Name(s) (Printed)
Sampler 1: S. OBryant Sampler 2: P. Duttenhaver

Project Information

Project Name: TQN #118 NASA PRL3 (227)
Street: Kennedy Space Center
City: Brevard County State: FL
Project # NS1005.03.04
Fax #
Client Purchase Order #

Analytical Information

8082 PCBs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION: TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	LAB USE ONLY
13	SAEE-EB-20200626-01	2020 6/26	1320	SO	LIQ	2		X							X	

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	6/26 1530	2 6/26 3:30	3 6/26	4:30	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

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SGS Sample Receipt Summary

Job Number: FA76374 **Client:** HYDROGEOLOGIC, INC. **Project:** TQN#118 NASA PRLS (227)

Date / Time Received: 6/26/2020 4:32:00 PM **Delivery Method:** ALSE **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** -0.8; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Information	Y	N
1. Custody Seals Present	☑	☐
2. Custody Seals Intact	☑	☐
3. Temp criteria achieved	☑	☐
4. Cooler temp verification	IR Gun	
5. Cooler media	Ice (Bag)	

Trip Blank Information	Y	N	N/A
1. Trip Blank present / cooler	☐	☐	☑
2. Trip Blank listed on COC	☐	☐	☑

	W	S	N/A
3. Type Of TB Received	☐	☐	☑

Sample Information	Y	N	N/A
1. Sample labels present on bottles	☑	☐	
2. Samples preserved properly	☑	☐	
3. Sufficient volume/containers recvd for analysis:	☑	☐	
4. Condition of sample	Intact		
5. Sample recvd within HT	☑	☐	
6. Dates/Times/IDs on COC match Sample Label	☑	☐	
7. VOCs have headspace	☐	☐	☑
8. Bottles received for unspecified tests	☐	☑	
9. Compositing instructions clear	☐	☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐	☐	☑
11. % Solids Jar received?	☐	☐	☑
12. Residual Chlorine Present?	☐	☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: ADAMK Date: 6/26/2020 4:32:00 PM Reviewer: _____ Date: _____

Job Change Order: FA76374

Requested Date:	7/13/2020	**Received Date:**	6/26/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	7/10/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	10

==========

Sample #:	FA76374-1-12	**Change:**
Dept:		Please send remaining sample volume to SGS Dayton for P8082SOXHLETPCB. Thank you.
TAT:	10	

==========

Above Changes Per: CSR **Date/Time:** 7/15/2020 1:05:50 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: FA76374R

Requested Date:	7/13/2020	**Received Date:**	6/26/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	7/29/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	10

==========

Sample #: FA76374R-1-9, 11, 12

Dept:

TAT: 10

Change:

Please send remaining sample volume to SGS Dayton for P8082SOXHLETPCB, -10 is on HOLD per client. . Thank you.

==========

FA76374R: Chain of Custody
Page 5 of 5

Above Changes Per: CSR **Date/Time:** 7/15/2020 2:24:16 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

QC Evaluation: DOD QSM5.x Limits

Job Number: FA76374R
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/26/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP80942	SW846 8082A						
OP80942-BS	12674-11-2	Aroclor 1016	BSP	REC	85	%	46-129
OP80942-BS	11096-82-5	Aroclor 1260	BSP	REC	93	%	45-134

* Sample used for QC is not from job FA76374R

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76374R
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-MB	MM63897.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-13

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	89%	38-127%
2051-24-3	Decachlorobiphenyl	91%	25-137%

Blank Spike Summary

Job Number: FA76374R
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-BS [a]	MM63896.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	8	6.8	85	57-122
11096-82-5	Aroclor 1260	8	7.4	93	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	81%	38-127%
2051-24-3	Decachlorobiphenyl	87%	25-137%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

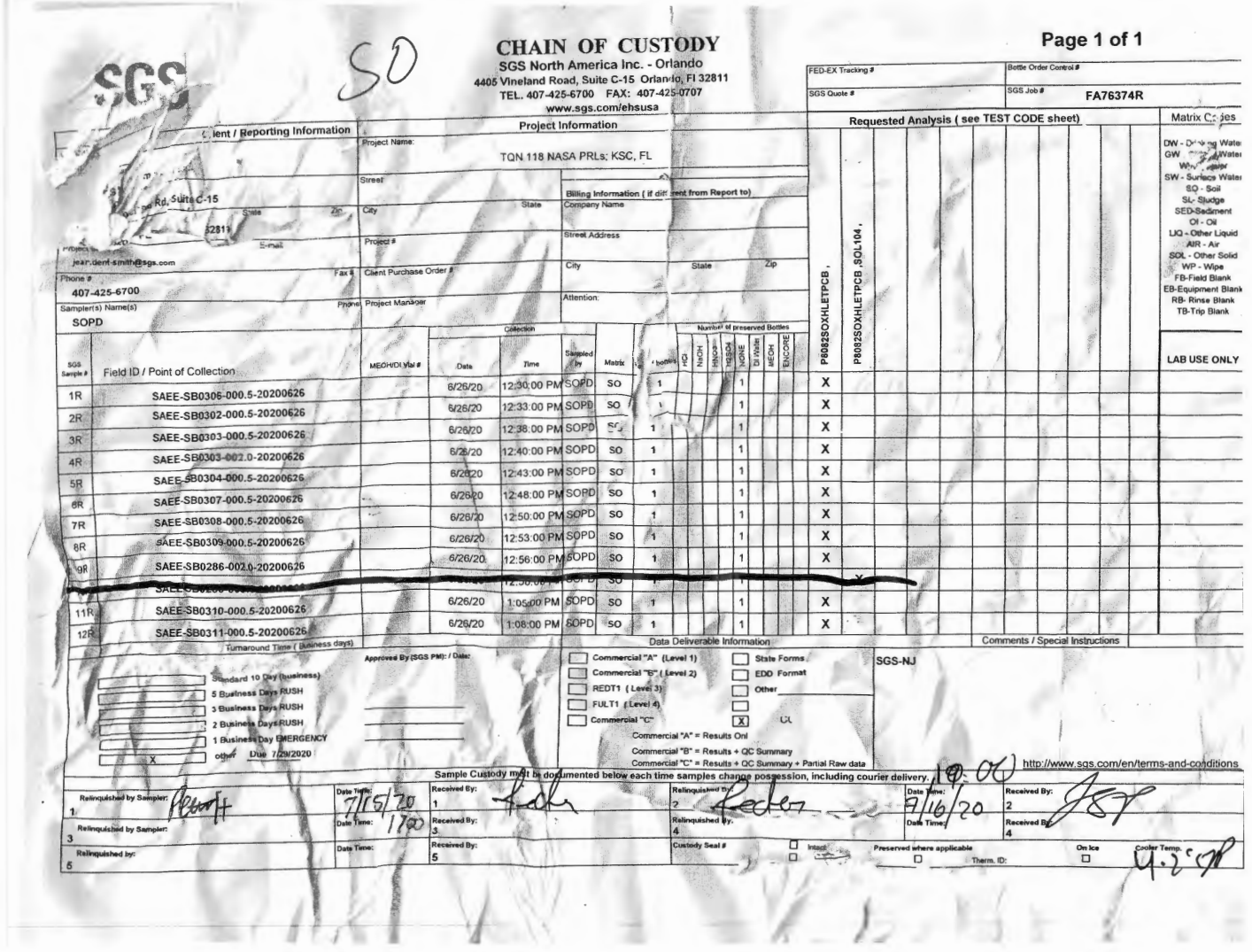
Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

Page 1 of 1

SGS Job # FA76374R

Project Information
Project Name: TQN 118 NASA PRLs; KSC, FL

Client / Reporting Information
Rd, Suite C-15
32811
jean.dent-smith@sgs.com
Phone # 407-425-6700
Sampler(s) Name(s) SOPD

Billing Information (if different from Report to)

Requested Analysis (see TEST CODE sheet)

Matrix Codes
DW - Drinking Water
GW - Groundwater
WW - Wastewater
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB ,	P8082SOXHLETPCB .SOL104 ,	LAB USE ONLY
1R	SAEE-SB0306-000.5-20200626		6/26/20	12:30:00 PM	SOPD	SO	1					1				X		
2R	SAEE-SB0302-000.5-20200626		6/26/20	12:33:00 PM	SOPD	SO	1					1				X		
3R	SAEE-SB0303-000.5-20200626		6/26/20	12:38:00 PM	SOPD	SO	1					1				X		
4R	SAEE-SB0303-002.0-20200626		6/26/20	12:40:00 PM	SOPD	SO	1					1				X		
5R	SAEE-SB0304-000.5-20200626		6/26/20	12:43:00 PM	SOPD	SO	1					1				X		
6R	SAEE-SB0307-000.5-20200626		6/26/20	12:48:00 PM	SOPD	SO	1					1				X		
7R	SAEE-SB0308-000.5-20200626		6/26/20	12:50:00 PM	SOPD	SO	1					1				X		
8R	SAEE-SB0309-000.5-20200626		6/26/20	12:53:00 PM	SOPD	SO	1					1				X		
9R	SAEE-SB0286-002.0-20200626		6/26/20	12:56:00 PM	SOPD	SO	1					1				X		
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					[illegible]				[illegible]	X	
11R	SAEE-SB0310-000.5-20200626		6/26/20	1:05:00 PM	SOPD	SO	1					1				X		
12R	SAEE-SB0311-000.5-20200626		6/26/20	1:08:00 PM	SOPD	SO	1					1				X		

Turnaround Time (business days)
- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 7/29/2020

Approved By (SGS PM): / Date:

Data Deliverable Information
- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X QC

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions
SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1		7/15/20 1700	1	2	9/16/20	2
3	Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact	Preserved where applicable / Therm. ID: / On Ice / Cooler Temp.

4.2°C

7.1.7

FA76374R: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FA76374 **Client:** _____ **Project:** _____

Date / Time Received: 7/16/2020 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (4.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.9);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

7.1
7

FA76374R: Chain of Custody
Page 2 of 2

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76374R
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28528-MB1	5G98086.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-1R, FA76374-2R, FA76374-3R, FA76374-4R, FA76374-5R, FA76374-6R, FA76374-7R, FA76374-8R, FA76374-9R, FA76374-11R, FA76374-12R

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	104%	29-139%
877-09-8	Tetrachloro-m-xylene	104%	29-139%
2051-24-3	Decachlorobiphenyl	105%	18-153%
2051-24-3	Decachlorobiphenyl	109%	18-153%

Method Blank Summary

Job Number: FA76374R
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28528-MB1	2G195401.D	1	07/21/20	TR	07/16/20	OP28528	G2G5060

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-1R, FA76374-2R, FA76374-3R, FA76374-4R, FA76374-5R, FA76374-6R, FA76374-7R, FA76374-8R, FA76374-9R, FA76374-11R, FA76374-12R

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	129%	29-139%
877-09-8	Tetrachloro-m-xylene	125%	29-139%
2051-24-3	Decachlorobiphenyl	145%	18-153%
2051-24-3	Decachlorobiphenyl	131%	18-153%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76374R
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28528-BS1	5G98087.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418
OP28528-BSD	5G98088.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-1R, FA76374-2R, FA76374-3R, FA76374-4R, FA76374-5R, FA76374-6R, FA76374-7R, FA76374-8R, FA76374-9R, FA76374-11R, FA76374-12R

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	264	132	267	134	1	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	248	124	252	126	2	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	103%	104%	29-139%
877-09-8	Tetrachloro-m-xylene	105%	104%	29-139%
2051-24-3	Decachlorobiphenyl	103%	102%	18-153%
2051-24-3	Decachlorobiphenyl	107%	107%	18-153%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76374R
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28528-MS	5G98090.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418
OP28528-MSD	5G98091.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418
FA76374-1R	5G98089.D	1	07/17/20	TR	07/16/20	OP28528	G5G2418

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76374-1R, FA76374-2R, FA76374-3R, FA76374-4R, FA76374-5R, FA76374-6R, FA76374-7R, FA76374-8R, FA76374-9R, FA76374-11R, FA76374-12R

CAS No.	Compound	FA76374-1R ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	60 U		230	254	110	246	283	115	11	10-200/65
11104-28-2	Aroclor 1221	60 U			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	60 U			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	60 U			ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	60 U			ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	60 U			ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	96.2		230	295	86	246	322	92	9	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76374-1R Limits
877-09-8	Tetrachloro-m-xylene	93%	94%	29-139%
877-09-8	Tetrachloro-m-xylene	88%	89%	29-139%
2051-24-3	Decachlorobiphenyl	88%	89%	18-153%
2051-24-3	Decachlorobiphenyl	91%	92%	18-153%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.03.06

SGS Job Number: FA76396

Sampling Date: 06/25/20

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: 33

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

Caitlin Brice, M.S.
General Manager

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA76396

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.03.06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA76396-1	06/25/20	09:30	ODM	06/27/20	SO	Soil	SAEE-SB0134-003.0-20200625
FA76396-2	06/25/20	09:15	ODM	06/27/20	SO	Soil	SAEE-SB0321-000.5-20200625
FA76396-5	06/25/20	11:00	ODM	06/27/20	SO	Soil	SAEE-SB0312-000.5-20200625
FA76396-6	06/25/20	10:35	ODM	06/27/20	SO	Soil	SAEE-SB0320-000.5-20200625
FA76396-9	06/25/20	12:15	ODM	06/27/20	AQ	Equipment Blank	SAEE-EB-20200625-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA76396

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 7/16/2020 7:42:35 PM

5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/25/2020 and were received at SGS North America Inc - Orlando on 06/27/2020 properly preserved, at 3 Deg. C and intact. These Samples received an SGS Orlando job number of FA76396. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP80942

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

OP80942-BS: Insufficient sample for MS/MSD.

Matrix: SO **Batch ID:** N:OP28377

FA76396-6: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP28440

FA76396-2: Analysis performed at SGS Dayton, NJ.

FA76396-5: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP28475

FA76396-1: Analysis performed at SGS Dayton, NJ.

FA76396-1 for Aroclor 1016: This compound is outside the DOD limits in the associated BS and BSD biased high.

General Chemistry By Method SM19 2540G

Matrix: SO **Batch ID:** GN85565

Sample(s) FA76374-11DUP were used as the QC samples for Solids, Percent.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services (signature on file)

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No**	FA76396
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	7/16/2020 4:43:51 PM

On 07/07/2020, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA76396 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP28377

- All samples were extracted within the recommended method holding time.
- Sample(s) FA76396-1MS, FA76396-1MSD, OP28377-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Aroclor 1260 are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for Aroclor 1260 are outside control limits for sample OP28377-MSD. Analytical precision exceeds in-house control limits.

Matrix: SO **Batch ID:** OP28440

- Sample(s) FA76449-9MS, FA76449-9MSD, OP28440-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8082A: FA76396-2, FA76396-5

Matrix: SO **Batch ID:** OP28475

- Sample(s) FA76396-1MS, FA76396-1MSD, OP28475-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8082A: FA76396-1
- OP28475-BS1 for Aroclor 1016: Outside program specific requirements biased high.
- OP28475-BS1 for Aroclor 1260: Outside program specific requirements biased high.
- FA76396-1 for Aroclor 1016: This compound is outside the DOD limits in the associated BS and BSD biased high.
- FA76396-1 for Aroclor 1260: This compound is outside the DOD limits in the associated BS and BSD biased high.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA76396
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/25/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA76396-1	**SAEE-SB0134-003.0-20200625**					
No hits reported in this sample.						
FA76396-2	**SAEE-SB0321-000.5-20200625**					
No hits reported in this sample.						
FA76396-5	**SAEE-SB0312-000.5-20200625**					
No hits reported in this sample.						
FA76396-6	**SAEE-SB0320-000.5-20200625**					
No hits reported in this sample.						
FA76396-9	**SAEE-EB-20200625-01**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0134-003.0-20200625		
Lab Sample ID:	FA76396-1	**Date Sampled:**	06/25/20
Matrix:	SO - Soil	**Date Received:**	06/27/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G98035.D	1	07/15/20 18:06	ANJ	07/14/20 19:45	N:OP28475	N:G5G2416
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	54	50	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260 [b]	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	115%		29-139%
877-09-8	Tetrachloro-m-xylene	110%		29-139%
2051-24-3	Decachlorobiphenyl	111%		18-153%
2051-24-3	Decachlorobiphenyl	107%		18-153%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS and BSD biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0321-000.5-20200625		
Lab Sample ID:	FA76396-2	**Date Sampled:**	06/25/20
Matrix:	SO - Soil	**Date Received:**	06/27/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195182.D	1	07/16/20 11:49	ANJ	07/13/20 12:00	N:OP28440	N:G2G5055
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	30	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		29-139%
877-09-8	Tetrachloro-m-xylene	106%		29-139%
2051-24-3	Decachlorobiphenyl	118%		18-153%
2051-24-3	Decachlorobiphenyl	110%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0312-000.5-20200625		
Lab Sample ID:	FA76396-5	**Date Sampled:**	06/25/20
Matrix:	SO - Soil	**Date Received:**	06/27/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195095.D	1	07/14/20 23:53	ANJ	07/13/20 12:00	N:OP28440	N:G2G5052
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		29-139%
877-09-8	Tetrachloro-m-xylene	92%		29-139%
2051-24-3	Decachlorobiphenyl	109%		18-153%
2051-24-3	Decachlorobiphenyl	108%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0320-000.5-20200625		
Lab Sample ID:	FA76396-6	**Date Sampled:**	06/25/20
Matrix:	SO - Soil	**Date Received:**	06/27/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G194976.D	1	07/13/20 11:54	ANJ	07/09/20 11:45	N:OP28377	N:G2G5049
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		29-139%
877-09-8	Tetrachloro-m-xylene	88%		29-139%
2051-24-3	Decachlorobiphenyl	94%		18-153%
2051-24-3	Decachlorobiphenyl	89%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-EB-20200625-01		
Lab Sample ID:	FA76396-9	**Date Sampled:**	06/25/20
Matrix:	AQ - Equipment Blank	**Date Received:**	06/27/20
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM63900.D	1	07/06/20 11:10	NM	07/02/20 08:19	OP80942	GMM1327
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.42	0.21	0.17	ug/l	
11104-28-2	Aroclor 1221	0.31 U	0.42	0.31	0.21	ug/l	
11141-16-5	Aroclor 1232	0.31 U	0.42	0.31	0.21	ug/l	
53469-21-9	Aroclor 1242	0.21 U	0.42	0.21	0.17	ug/l	
12672-29-6	Aroclor 1248	0.21 U	0.42	0.21	0.17	ug/l	
11097-69-1	Aroclor 1254	0.21 U	0.42	0.21	0.17	ug/l	
11096-82-5	Aroclor 1260	0.21 U	0.42	0.21	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		38-127%
2051-24-3	Decachlorobiphenyl	88%		25-137%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA76396

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Hydro GeoLogic, Inc.
Address: 2405 N. Courtenay Pkwy. STE 203
City: Merritt Island State: FL Zip: 32952
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #: (910) 233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: B. Mitchell Sampler 2: P. Duttenhaver

Project Information

Project Name: TO#118 NASA PRLs (227)
Street: Kennedy Space Center
City: Brevard County State: FL
Project #: NS1005
Fax #:
Client Purchase Order #: NS1005.03.06

Analytical Information

8082 PCB
LAB HOLD

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE 2020	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	LAB USE ONLY
1	SAEE-SB0134-003.0-20200625	6/25	0930	SO	SO	1		X								
2	SAEE-SB0321-000.5-20200625	6/25	0915	SO	SO	1		X								
3	SAEE-SB0321-002.0-20200625	6/25	0920	SO	SO	1		X								
4	SAEE-SB0321-003.0-20200625	6/25	0925	SO	SO	1		X								
5	SAEE-SB0312-000.5-20200625	06/25	1100	BSM	SO	1		X								
6	SAEE-SB0320-000.5-20200625	06/25	1035	BSM	SO	1		X								
7	SAEE-SB0320-002.0-20200625	06/25	1040	BSM	SO	1		X								
8	SAEE-SB0320-003.0-20200625	06/25	1045	BSM	SO	1		X								
9	SAEE-EB-20200625-01	06/25	1215	BSM	WW	2		X								

INITIAL ASSESSMENT BS
LABEL VERIFICATION BS

Turnaround Time (Business days)

10 Day (Business)
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Approved By: / Date:
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		6/26 1930	2 JS 6/26	3:30 3 JS 6/26	4:32	4 FedEx
5	FedEx		6	06/27/20 10:30 7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.0

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

SGS Sample Receipt Summary

Job Number: FA76396 **Client:** HYDROGEO **Project:** TQN#118 NASA

Date / Time Received: 6/27/2020 10:30:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 138665997317

Therm ID: IR 1; **Therm CF:** -0.8; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: JENNAK Date: 6/27/2020 10:30:00 A Reviewer: _____ Date: _____

5.1

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FA76396: Chain of Custody
Page 2 of 3

Job Change Order: FA76396

Requested Date:	6/29/2020	**Received Date:**	6/27/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	7/13/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	14

==========

Sample #: FA76396-1 ,2 ,5, 6

Dept:

TAT: 14

Change:

Please remove code for P8082PCB and log for P8082SOXHLETPCB, samples are to be subcontracted to SGS NJ.

==========

Above Changes Per: client, Denise Rivers, via e-mail re **Date/Time:** 7/2/2020 3:48:50 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

QC Evaluation: DOD QSM5.x Limits

Job Number: FA76396
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/25/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP80942	SW846 8082A						
OP80942-BS	12674-11-2	Aroclor 1016	BSP	REC	85	%	46-129
OP80942-BS	11096-82-5	Aroclor 1260	BSP	REC	93	%	45-134

* Sample used for QC is not from job FA76396

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76396
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-MB	MM63897.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-9

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	89%	38-127%
2051-24-3	Decachlorobiphenyl	91%	25-137%

Blank Spike Summary

Job Number: FA76396
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-BS [a]	MM63896.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	8	6.8	85	57-122
11096-82-5	Aroclor 1260	8	7.4	93	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	81%	38-127%
2051-24-3	Decachlorobiphenyl	87%	25-137%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SO

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 778660047697 | Bottle Order Control # | SGS Quote # | SGS Job # FA76396

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): ODM Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB,	LAB USE ONLY
1	SAEE-SB0134-003.0-20200625		6/25/20	9:30:00 AM	ODM	SO	1					1				X	
2	SAEE-SB0321-000.5-20200625		6/25/20	9:15:00 AM	ODM	SO	1					1				X	
5	SAEE-SB0312-000.5-20200625		6/25/20	11:00:00 AM	ODM	SO	1					1				X	E372
6	SAEE-SB0320-000.5-20200625		6/25/20	10:35:00 AM	ODM	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 7/17/2020

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ
Initial Assessment ZAV
Label Verification

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		7/6/20 1600	1	2	7/7/20 0940	2
3			3	4		4
5			5	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID: / On Ice / Cooler Temp. 2.9°C IP

7.1

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FA76396: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FA76396 **Client:** _____ **Project:** _____

Date / Time Received: 7/7/2020 9:40:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

7.1
7

FA76396: Chain of Custody
Page 2 of 2

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-MB1	2G194970.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-6

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	108%	29-139%
877-09-8	Tetrachloro-m-xylene	107%	29-139%
2051-24-3	Decachlorobiphenyl	119%	18-153%
2051-24-3	Decachlorobiphenyl	111%	18-153%

Method Blank Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-MB1	2G195071.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-2, FA76396-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	114%	29-139%
877-09-8	Tetrachloro-m-xylene	106%	29-139%
2051-24-3	Decachlorobiphenyl	131%	18-153%
2051-24-3	Decachlorobiphenyl	129%	18-153%

Method Blank Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28475-MB1	5G98032.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	120%	29-139%
877-09-8	Tetrachloro-m-xylene	115%	29-139%
2051-24-3	Decachlorobiphenyl	106%	18-153%
2051-24-3	Decachlorobiphenyl	85%	18-153%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-BS1	2G194971.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
OP28377-BSD	2G194972.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	256	128	264	132	3	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	264	132	270	135	2	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	120%	120%	29-139%
877-09-8	Tetrachloro-m-xylene	114%	117%	29-139%
2051-24-3	Decachlorobiphenyl	130%	130%	18-153%
2051-24-3	Decachlorobiphenyl	121%	126%	18-153%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-BS1	2G195072.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052
OP28440-BSD	2G195073.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-2, FA76396-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	239	120	229	115	4	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	268	134	237	119	12	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	116%	101%	29-139%
877-09-8	Tetrachloro-m-xylene	103%	90%	29-139%
2051-24-3	Decachlorobiphenyl	130%	115%	18-153%
2051-24-3	Decachlorobiphenyl	126%	110%	18-153%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28475-BS1	5G98033.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416
OP28475-BSD	5G98034.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	328	164 [a]	310	155 [a]	6	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	300	150 [a]	296	148 [a]	1	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	114%	120%	29-139%
877-09-8	Tetrachloro-m-xylene	116%	114%	29-139%
2051-24-3	Decachlorobiphenyl	114%	114%	18-153%
2051-24-3	Decachlorobiphenyl	102%	107%	18-153%

(a) Outside program specific requirements biased high.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-MS	2G194974.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
OP28377-MSD	2G194975.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
FA76396-1 [a]	2G194973.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-6

CAS No.	Compound	FA76396-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	54 U		206	217	105	208	240	115	10	10-200/65
11104-28-2	Aroclor 1221	54 U			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	54 U			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	54 U			ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	54 U			ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	54 U			ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	23.5	J	206	149	61	208	6220	2981* [b]	191* [c]	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76396-1	Limits
877-09-8	Tetrachloro-m-xylene	65%	101%		29-139%
877-09-8	Tetrachloro-m-xylene	68%	101%		29-139%
2051-24-3	Decachlorobiphenyl	67%	98%		18-153%
2051-24-3	Decachlorobiphenyl	67%	97%		18-153%

(a) Sample used for QC purposes only.
(b) Outside control limits due to matrix interference.
(c) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-MS	2G195177.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055
OP28440-MSD	2G195178.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055
FA76449-9	2G195176.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-2, FA76396-5

CAS No.	Compound	FA76449-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	52	U	206	209	101	217	256	118	20	10-200/65
11104-28-2	Aroclor 1221	52	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	52	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	52	U		ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	52	U		ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	52	U		ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	86.4		206	287	97	217	323	109	12	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76449-9	Limits
877-09-8	Tetrachloro-m-xylene	94%	106%	116%	29-139%
877-09-8	Tetrachloro-m-xylene	89%	98%	107%	29-139%
2051-24-3	Decachlorobiphenyl	100%	110%	126%	18-153%
2051-24-3	Decachlorobiphenyl	100%	109%	125%	18-153%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76396
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28475-MS	5G98036.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416
OP28475-MSD	5G98037.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416
FA76396-1	5G98035.D	1	07/15/20	TR	07/14/20	OP28475	G5G2416

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76396-1

CAS No.	Compound	FA76396-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	54	U	210	286	136	212	359	169	23	10-200/65
11104-28-2	Aroclor 1221	54	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	54	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	54	U		ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	54	U		ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	54	U		ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	54	U	210	279	133	212	349	165	22	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76396-1	Limits
877-09-8	Tetrachloro-m-xylene	95%	122%	115%	29-139%
877-09-8	Tetrachloro-m-xylene	92%	117%	110%	29-139%
2051-24-3	Decachlorobiphenyl	94%	117%	111%	18-153%
2051-24-3	Decachlorobiphenyl	94%	118%	107%	18-153%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.03.04

SGS Job Number: FA76449

Sampling Date: 06/29/20

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: 59

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

Caitlin Brice, M.S.
General Manager

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA76449

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.03.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA76449-1	06/29/20	09:37	SOPD	06/30/20	SO	Soil	SAEE-SB0300-000.5-20200629
FA76449-2	06/29/20	09:40	SOPD	06/30/20	SO	Soil	SAEE-SB0301-000.5-20200629
FA76449-3	06/29/20	09:42	SOPD	06/30/20	SO	Soil	SAEE-SB0296-003.0-20200629
FA76449-4	06/29/20	09:47	SOPD	06/30/20	SO	Soil	SAEE-SB0293-003.0-20200629
FA76449-5	06/29/20	09:52	SOPD	06/30/20	SO	Soil	SAEE-SB0317-002.0-20200629
FA76449-6	06/29/20	09:58	SOPD	06/30/20	SO	Soil	SAEE-SB0318-000.5-20200629
FA76449-7	06/29/20	10:00	SOPD	06/30/20	SO	Soil	SAEE-SB0318-003.0-20200629
FA76449-8	06/29/20	10:03	SOPD	06/30/20	SO	Soil	SAEE-SB0319-002.0-20200629
FA76449-9	06/29/20	10:08	SOPD	06/30/20	SO	Soil	SAEE-SB0013-002.0-20200629
FA76449-10	06/29/20	10:12	SOPD	06/30/20	SO	Soil	SAEE-SB0292-003.0-20200629
FA76449-11	06/29/20	10:20	SOPD	06/30/20	SO	Soil	SAEE-SB0316-002.0-20200629
FA76449-12	06/29/20	10:24	SOPD	06/30/20	SO	Soil	SAEE-SB0315-000.5-20200629
FA76449-13	06/29/20	10:26	SOPD	06/30/20	SO	Soil	SAEE-SB0315-002.0-20200629

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA76449

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.03.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA76449-14	06/29/20	10:28	SOPD	06/30/20	SO	Soil	SAEE-SB0314-000.5-20200629
FA76449-15	06/29/20	10:32	SOPD	06/30/20	SO	Soil	SAEE-SB0291-003.0-20200629
FA76449-16	06/29/20	10:37	SOPD	06/30/20	SO	Soil	SAEE-SB0313-000.5-20200629
FA76449-17	06/29/20	10:40	SOPD	06/30/20	SO	Soil	SAEE-SB0012-003.0-20200629
FA76449-18	06/29/20	10:42	SOPD	06/30/20	SO	Soil	SAEE-SB0305-000.5-20200629
FA76449-19	06/29/20	10:44	SOPD	06/30/20	SO	Soil	SAEE-SB0312-000.5-20200629
FA76449-20	06/29/20	10:55	SOPD	06/30/20	AQ	Equipment Blank	SAEE-EB-20200629-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA76449

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 7/24/2020 8:38:26 PM

20 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/29/2020 and were received at SGS North America Inc - Orlando on 06/30/2020 properly preserved, at 3.7 Deg. C and intact. These Samples received an SGS Orlando job number of FA76449. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP80942

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

OP80942-BS: Insufficient sample for MS/MSD.

Matrix: SO **Batch ID:** N:OP28377

FA76449-1: Analysis performed at SGS Dayton, NJ.

FA76449-3: Analysis performed at SGS Dayton, NJ.

FA76449-5: Analysis performed at SGS Dayton, NJ.

FA76449-6: Analysis performed at SGS Dayton, NJ.

FA76449-8: Analysis performed at SGS Dayton, NJ.

FA76449-12: Analysis performed at SGS Dayton, NJ.

FA76449-13: Analysis performed at SGS Dayton, NJ.

FA76449-14: Analysis performed at SGS Dayton, NJ.

FA76449-15: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP28378

FA76449-18: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP28440

FA76449-2: Analysis performed at SGS Dayton, NJ.

FA76449-4: Analysis performed at SGS Dayton, NJ.

FA76449-7: Analysis performed at SGS Dayton, NJ.

FA76449-9: Analysis performed at SGS Dayton, NJ.

FA76449-10: Analysis performed at SGS Dayton, NJ.

FA76449-11: Analysis performed at SGS Dayton, NJ.

FA76449-16: Analysis performed at SGS Dayton, NJ.

FA76449-19: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP28588

FA76449-17: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM19 2540G

Matrix: SO **Batch ID:** GN85580

Sample(s) FA76449-1DUP were used as the QC samples for Solids, Percent.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN9518

FA76449-14 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA76449-15 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA76449-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA76449-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA76449-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA76449-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services (signature on file)

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No**	FA76449
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	7/24/2020 5:33:56 PM

On 07/07/2020, 19 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA76449 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP28377

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA76396-1MS, FA76396-1MSD, OP28377-MSMSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for Aroclor 1260 are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for Aroclor 1260 are outside control limits for sample OP28377-MSD. Analytical precision exceeds in-house control limits.
- FA76449-1 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA76449-3 for Tetrachloro-m-xylene: Outside control limits due to matrix interference.
- FA76449-3 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP28378

- All samples were extracted within the recommended method holding time.
- Sample(s) FA76449-17MS, FA76449-17MSD, OP28378-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike /Matrix Spike Duplicate Recovery(s) for Aroclor 1260 are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- FA76449-18: Confirmation run.

Matrix: SO **Batch ID:** OP28440

- All samples were extracted within the recommended method holding time.
- Sample(s) FA76449-9MS, FA76449-9MSD, OP28440-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- FA76449-2 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP28588

- Sample(s) FA76449-17MS, FA76449-17MSD, OP28588-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8082A: FA76449-17

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN9518

- Sample(s) JD9827-1DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA76449
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/29/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA76449-1	**SAEE-SB0300-000.5-20200629**					
Aroclor 1254 [a]		698	50	40	ug/kg	SW846 8082A
FA76449-2	**SAEE-SB0301-000.5-20200629**					
Aroclor 1254 [a]		498	52	42	ug/kg	SW846 8082A
FA76449-3	**SAEE-SB0296-003.0-20200629**					
Aroclor 1254 [a]		10200	980	780	ug/kg	SW846 8082A
FA76449-4	**SAEE-SB0293-003.0-20200629**					
Aroclor 1254 [a]		157	52	41	ug/kg	SW846 8082A
FA76449-5	**SAEE-SB0317-002.0-20200629**					
Aroclor 1254 [a]		1170	250	200	ug/kg	SW846 8082A
FA76449-6	**SAEE-SB0318-000.5-20200629**					
Aroclor 1254 [a]		178	61	49	ug/kg	SW846 8082A
Aroclor 1260 [a]		44.9 J	61	49	ug/kg	SW846 8082A
FA76449-7	**SAEE-SB0318-003.0-20200629**					
Aroclor 1254 [a]		709	57	45	ug/kg	SW846 8082A
FA76449-8	**SAEE-SB0319-002.0-20200629**					
Aroclor 1254 [a]		388	47	38	ug/kg	SW846 8082A
Aroclor 1260 [a]		240	47	38	ug/kg	SW846 8082A
FA76449-9	**SAEE-SB0013-002.0-20200629**					
Aroclor 1260 [a]		86.4	52	42	ug/kg	SW846 8082A
FA76449-10	**SAEE-SB0292-003.0-20200629**					
Aroclor 1254 [a]		88.1	47	38	ug/kg	SW846 8082A
FA76449-11	**SAEE-SB0316-002.0-20200629**					
Aroclor 1254 [a]		569	48	38	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA76449
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/29/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
Aroclor 1260 [a]		945	48	38	ug/kg	SW846 8082A
FA76449-12	**SAEE-SB0315-000.5-20200629**					
Aroclor 1254 [a]		189	57	45	ug/kg	SW846 8082A
Aroclor 1260 [a]		818	57	45	ug/kg	SW846 8082A
FA76449-13	**SAEE-SB0315-002.0-20200629**					
Aroclor 1254 [a]		9410	1000	830	ug/kg	SW846 8082A
FA76449-14	**SAEE-SB0314-000.5-20200629**					
Aroclor 1260 [a]		192	53	42	ug/kg	SW846 8082A
FA76449-15	**SAEE-SB0291-003.0-20200629**					
Aroclor 1260 [a]		333	53	42	ug/kg	SW846 8082A
FA76449-16	**SAEE-SB0313-000.5-20200629**					
Aroclor 1260 [a]		769	53	43	ug/kg	SW846 8082A
FA76449-17	**SAEE-SB0012-003.0-20200629**					
Aroclor 1260 [a]		3260	270	220	ug/kg	SW846 8082A
FA76449-18	**SAEE-SB0305-000.5-20200629**					
Aroclor 1260 [a]		69.6	56	45	ug/kg	SW846 8082A
FA76449-19	**SAEE-SB0312-000.5-20200629**					
Aroclor 1260 [a]		228	60	48	ug/kg	SW846 8082A
FA76449-20	**SAEE-EB-20200629-01**					

No hits reported in this sample.

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0300-000.5-20200629		
Lab Sample ID:	FA76449-1	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	96.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195143.D	1	07/15/20 16:00	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	698	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		29-139%
877-09-8	Tetrachloro-m-xylene	91%		29-139%
2051-24-3	Decachlorobiphenyl	128%		18-153%
2051-24-3	Decachlorobiphenyl	181% [b]		18-153%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0301-000.5-20200629		
Lab Sample ID:	FA76449-2	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	96.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195147.D	1	07/15/20 17:23	ANJ	07/13/20 12:00	N:OP28440	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	498	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	113%		29-139%
877-09-8	Tetrachloro-m-xylene	104%		29-139%
2051-24-3	Decachlorobiphenyl	143%		18-153%
2051-24-3	Decachlorobiphenyl	212% [b]		18-153%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0296-003.0-20200629		
Lab Sample ID:	FA76449-3	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195062.D	1	07/14/20 15:02	ANJ	07/09/20 11:45	N:OP28377	N:G2G5052
Run #2 [a]	2G195134.D	20	07/15/20 14:20	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2	10.8 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	10200 [b]	980	780	530	ug/kg	
11096-82-5	Aroclor 1260	39 U	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%	119%	29-139%
877-09-8	Tetrachloro-m-xylene	97%	140% [c]	29-139%
2051-24-3	Decachlorobiphenyl	103%	134%	18-153%
2051-24-3	Decachlorobiphenyl	132%	188% [c]	18-153%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0293-003.0-20200629		
Lab Sample ID:	FA76449-4	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195148.D	1	07/15/20 17:40	ANJ	07/13/20 12:00	N:OP28440	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	157	52	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	128%		29-139%
877-09-8	Tetrachloro-m-xylene	119%		29-139%
2051-24-3	Decachlorobiphenyl	128%		18-153%
2051-24-3	Decachlorobiphenyl	119%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0317-002.0-20200629		
Lab Sample ID:	FA76449-5	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195057.D	1	07/14/20 13:12	ANJ	07/09/20 11:45	N:OP28377	N:G2G5052
Run #2 [a]	2G195128.D	5	07/15/20 12:25	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2	10.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	1170 [b]	250	200	140	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%	125%	29-139%
877-09-8	Tetrachloro-m-xylene	101%	123%	29-139%
2051-24-3	Decachlorobiphenyl	113%	144%	18-153%
2051-24-3	Decachlorobiphenyl	109%	135%	18-153%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0318-000.5-20200629		
Lab Sample ID:	FA76449-6	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195129.D	1	07/15/20 12:42	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	178	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	44.9	61	49	26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%		29-139%
877-09-8	Tetrachloro-m-xylene	54%		29-139%
2051-24-3	Decachlorobiphenyl	56%		18-153%
2051-24-3	Decachlorobiphenyl	59%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0318-003.0-20200629		
Lab Sample ID:	FA76449-7	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195149.D	1	07/15/20 17:57	ANJ	07/13/20 12:00	N:OP28440	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	51	ug/kg	
11097-69-1	Aroclor 1254	709	57	45	31	ug/kg	
11096-82-5	Aroclor 1260	45 U	57	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	113%		29-139%
877-09-8	Tetrachloro-m-xylene	105%		29-139%
2051-24-3	Decachlorobiphenyl	126%		18-153%
2051-24-3	Decachlorobiphenyl	144%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0319-002.0-20200629		
Lab Sample ID:	FA76449-8	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195130.D	1	07/15/20 12:59	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	47	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	47	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	47	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	47	38	19	ug/kg	
12672-29-6	Aroclor 1248	45 U	47	45	42	ug/kg	
11097-69-1	Aroclor 1254	388	47	38	26	ug/kg	
11096-82-5	Aroclor 1260	240	47	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		29-139%
877-09-8	Tetrachloro-m-xylene	110%		29-139%
2051-24-3	Decachlorobiphenyl	116%		18-153%
2051-24-3	Decachlorobiphenyl	132%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0013-002.0-20200629		
Lab Sample ID:	FA76449-9	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195176.D	1	07/16/20 10:08	ANJ	07/13/20 12:00	N:OP28440	N:G2G5055
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	86.4	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	116%		29-139%
877-09-8	Tetrachloro-m-xylene	107%		29-139%
2051-24-3	Decachlorobiphenyl	126%		18-153%
2051-24-3	Decachlorobiphenyl	125%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0292-003.0-20200629		
Lab Sample ID:	FA76449-10	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	96.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195150.D	1	07/15/20 18:13	ANJ	07/13/20 12:00	N:OP28440	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	47	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	47	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	47	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	47	38	19	ug/kg	
12672-29-6	Aroclor 1248	45 U	47	45	42	ug/kg	
11097-69-1	Aroclor 1254	88.1	47	38	26	ug/kg	
11096-82-5	Aroclor 1260	38 U	47	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		29-139%
877-09-8	Tetrachloro-m-xylene	50%		29-139%
2051-24-3	Decachlorobiphenyl	57%		18-153%
2051-24-3	Decachlorobiphenyl	53%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0316-002.0-20200629		
Lab Sample ID:	FA76449-11	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	98.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195151.D	1	07/15/20 18:30	ANJ	07/13/20 12:00	N:OP28440	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	48	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	48	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	48	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	48	38	19	ug/kg	
12672-29-6	Aroclor 1248	45 U	48	45	42	ug/kg	
11097-69-1	Aroclor 1254	569	48	38	26	ug/kg	
11096-82-5	Aroclor 1260	945	48	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		29-139%
877-09-8	Tetrachloro-m-xylene	106%		29-139%
2051-24-3	Decachlorobiphenyl	112%		18-153%
2051-24-3	Decachlorobiphenyl	132%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0315-000.5-20200629		
Lab Sample ID:	FA76449-12	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195131.D	1	07/15/20 13:15	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	50	ug/kg	
11097-69-1	Aroclor 1254	189	57	45	30	ug/kg	
11096-82-5	Aroclor 1260	818	57	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		29-139%
877-09-8	Tetrachloro-m-xylene	98%		29-139%
2051-24-3	Decachlorobiphenyl	108%		18-153%
2051-24-3	Decachlorobiphenyl	115%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0315-002.0-20200629		
Lab Sample ID:	FA76449-13	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195063.D	1	07/14/20 15:30	ANJ	07/09/20 11:45	N:OP28377	N:G2G5052
Run #2 [a]	2G195135.D	20	07/15/20 14:37	ANJ	07/09/20 11:45	N:OP28377	N:G2G5054

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2	11.6 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	9410 [b]	1000	830	560	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%	102%	29-139%
877-09-8	Tetrachloro-m-xylene	81%	116%	29-139%
2051-24-3	Decachlorobiphenyl	86%	118%	18-153%
2051-24-3	Decachlorobiphenyl	95%	101%	18-153%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0314-000.5-20200629		
Lab Sample ID:	FA76449-14	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195060A.D	1	07/14/20 14:29	ANJ	07/09/20 11:45	N:OP28377	N:G2G5052
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	192	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		29-139%
877-09-8	Tetrachloro-m-xylene	72%		29-139%
2051-24-3	Decachlorobiphenyl	105%		18-153%
2051-24-3	Decachlorobiphenyl	103%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0291-003.0-20200629		
Lab Sample ID:	FA76449-15	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195061.D	1	07/14/20 14:46	ANJ	07/09/20 11:45	N:OP28377	N:G2G5052
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	53	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	333	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		29-139%
877-09-8	Tetrachloro-m-xylene	77%		29-139%
2051-24-3	Decachlorobiphenyl	89%		18-153%
2051-24-3	Decachlorobiphenyl	106%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0313-000.5-20200629		
Lab Sample ID:	FA76449-16	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195179.D	1	07/16/20 10:58	ANJ	07/13/20 12:00	N:OP28440	N:G2G5055
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	769	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	137%		29-139%
877-09-8	Tetrachloro-m-xylene	128%		29-139%
2051-24-3	Decachlorobiphenyl	141%		18-153%
2051-24-3	Decachlorobiphenyl	151%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-003.0-20200629		
Lab Sample ID:	FA76449-17	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2451595.D	1	07/24/20 09:59	ANJ	07/22/20 23:00	N:OP28588	N:GXX7091
Run #2 [a]	XX2451600.D	5	07/24/20 11:31	ANJ	07/22/20 23:00	N:OP28588	N:GXX7091

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2	10.7 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	3260 [b]	270	220	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%	80%	29-139%
877-09-8	Tetrachloro-m-xylene	83%	90%	29-139%
2051-24-3	Decachlorobiphenyl	86%	88%	18-153%
2051-24-3	Decachlorobiphenyl	100%	94%	18-153%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0305-000.5-20200629		
Lab Sample ID:	FA76449-18	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G97973.D	1	07/13/20 14:40	ANJ	07/09/20 11:45	N:OP28378	N:G5G2414
Run #2 [b]	5G97986.D	1	07/13/20 22:57	ANJ	07/09/20 11:45	N:OP28378	N:G5G2414

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2	11.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	56	52	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	69.6	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%	51%	29-139%
877-09-8	Tetrachloro-m-xylene	52%	52%	29-139%
2051-24-3	Decachlorobiphenyl	66%	55%	18-153%
2051-24-3	Decachlorobiphenyl	65%	68%	18-153%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0312-000.5-20200629		
Lab Sample ID:	FA76449-19	**Date Sampled:**	06/29/20
Matrix:	SO - Soil	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G195180.D	1	07/16/20 11:15	ANJ	07/13/20 12:00	N:OP28440	N:G2G5055
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	228	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	46%		29-139%
877-09-8	Tetrachloro-m-xylene	46%		29-139%
2051-24-3	Decachlorobiphenyl	88%		18-153%
2051-24-3	Decachlorobiphenyl	93%		18-153%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-EB-20200629-01		
Lab Sample ID:	FA76449-20	**Date Sampled:**	06/29/20
Matrix:	AQ - Equipment Blank	**Date Received:**	06/30/20
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM63902.D	1	07/06/20 11:33	NM	07/02/20 08:19	OP80942	GMM1327
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.19 U	0.38	0.19	0.15	ug/l	
11104-28-2	Aroclor 1221	0.29 U	0.38	0.29	0.19	ug/l	
11141-16-5	Aroclor 1232	0.29 U	0.38	0.29	0.19	ug/l	
53469-21-9	Aroclor 1242	0.19 U	0.38	0.19	0.15	ug/l	
12672-29-6	Aroclor 1248	0.19 U	0.38	0.19	0.15	ug/l	
11097-69-1	Aroclor 1254	0.19 U	0.38	0.19	0.15	ug/l	
11096-82-5	Aroclor 1260	0.19 U	0.38	0.19	0.15	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		38-127%
2051-24-3	Decachlorobiphenyl	91%		25-137%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

FA76449

SGS - ORLANDO JOB # :

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4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Hydro Geo Logic, Inc.
Address: 2405 N. Courtenay Pkwy STE203
City: Merritt Island State: FL Zip: 32953
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #: 910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: S. Bryant Sampler 2: P. Duttenhaver

Project Information

Project Name: TQN#118 NASA PRLS (227)
Street: Kennedy Space Center
City: Brevard County State: FL
Project #: NS1005.03.04
Fax #:
Client Purchase Order #: NS1005

Analytical Information

80332 PCBs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	LAB USE ONLY
1	SAEE-SB0300-000.5-20200629	6/29	0937	SO	SO	1		X								X
2	SAEE-SB0301-000.5-20200629	6/29	0940	SO	SO	1		X								X
3	SAEE-SB0296-003.0-20200629	6/29	0942	SO	SO	1		X								X
4	SAEE-SB0293-003.0-20200629	6/29	0947	SO	SO	1		X								X
5	SAEE-SB0317-002.0-20200629	6/29	0952	SO	SO	1		X								X
6	SAEE-SB0318-000.5-20200629	6/29	0958	SO	SO	1		X								X
7	SAEE-SB0318-003.0-20200629	6/29	1000	SO	SO	1		X								X
8	SAEE-SB0319-002.0-20200629	6/29	1003	SO	SO	1		X								X
9	SAEE-SB0013-002.0-20200629	6/29	1008	SO	SO	1		X								X
10	SAEE-SB0292-003.0-20200629	6/29	1012	SO	SO	1		X								X
11	SAEE-SB0316-002.0-20200629	6/29	1020	SO	SO	1		X								X
12	SAEE-SB0315-000.5-20200629	6/29	1024	SO	SO	1		X								X

Turnaround Time (Business days)

- (10 Day (Business)) Approved By: / Date:
- 7 Day
- 5 Day
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *RUSH*
- Other

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

SPECIAL ACCOUNTING SP

LABEL VERIFICATION SP

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	Denise Rivers	6/30 1207	2 JS 6/30 12:07	3 JS 6/30	2:00	4 06/30/2020 1400
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only: Cooler Temperature (s) Celsius (corrected): 3.7

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : FA76449 PAGE 2 OF 2

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HydroGeoLogic, Inc.
Address: 2405 N. Courtenay Pkwy STE203
City: Merritt Island State: FL Zip: 32953
Project Contact: Denise Rivera Email: driveras@hgl.com
Phone #: 910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: S. Obryant Sampler 2: P. Duttenhaver

Project Information

Project Name: TQN#118 NASA PRLs (227)
Street: Kennedy Space Center
City: Brevard County State: FL
Project #: NS1005.03.04
Fax #:
Client Purchase Order #: NS1005

Analytical Information

8082 PCBs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION 2020 DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	LAB USE ONLY
13	SAEE-SB0315-002.0-20200629	6/29	1026	SO	SO	1		X							X	
14	SAEE-SB0314-000.5-20200629	6/29	1028	SO	SO	1		X							X	
15	SAEE-SB0291-003.0-20200629	6/29	1032	SO	SO	1		X							X	
16	SAEE-SB0313-000.5-20200629	6/29	1037	SO	SO	1		X							X	
17	SAEE-SB0012-003.0-20200629	6/29	1040	SO	SO	1		X							X	
18	SAEE-SB0305-000.5-20200629	6/29	1042	SO	SO	1		X							X	
19	SAEE-SB0312-000.5-20200629	6/29	1044	SO	SO	1		X							X	
20	SAEE-EB-20200629-01	6/29	1055	SO	LIQ	2		X							X	

Turnaround Time (Business days)

- 10 Day (Business) — Approved By: / Date:
- 7 Day
- 5 Day
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *RUSH*
- Other

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☒ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	Steve Obryant	6/30 1207	2 JS 6/30	12:07 3 JS 6/30	2:00	4 06/30/2020 11:50
5	Relinquished By/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

SGS Sample Receipt Summary

Job Number: FA76449 **Client:** HGL **Project:** TQN #118 NASA PRLS

Date / Time Received: 6/30/2020 2:00:00 PM **Delivery Method:** SGS **Airbill #'s:** N/A

Therm ID: IR 1; **Therm CF:** -0.8; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.5);

Cooler Temps (Corrected) °C: Cooler 1: (3.7);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP Date: 6/30/2020 2:00:00 PM Reviewer: _____ Date: _____

Job Change Order: FA76449

Requested Date:	7/13/2020	**Received Date:**	6/30/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	7/14/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	10

==========

Sample #: FA76449-14-19

Dept:

TAT: 10

Change:

Please analyze for SOL104, samples subcontracted to NJ. Thank you.

==========

Above Changes Per: CSR **Date/Time:** 7/13/2020 11:15:50 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

QC Evaluation: DOD QSM5.x Limits

Job Number: FA76449
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/29/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP80942	SW846 8082A						
OP80942-BS	12674-11-2	Aroclor 1016	BSP	REC	85	%	46-129
OP80942-BS	11096-82-5	Aroclor 1260	BSP	REC	93	%	45-134

* Sample used for QC is not from job FA76449

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76449
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-MB	MM63897.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	89%	38-127%
2051-24-3	Decachlorobiphenyl	91%	25-137%

Blank Spike Summary

Job Number: FA76449
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP80942-BS [a]	MM63896.D	1	07/06/20	NM	07/02/20	OP80942	GMM1327

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	8	6.8	85	57-122
11096-82-5	Aroclor 1260	8	7.4	93	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	81%	38-127%
2051-24-3	Decachlorobiphenyl	87%	25-137%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SGS 50

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 138666004697 | Bottle Order Control #
SGS Quote # | SGS Job # FA76449

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Company Name
City: Orlando State: FL Zip: 32811	City State	Street Address
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	City State Zip
Phone #: 407-425-6700 Fax #	Client Purchase Order #	Attention:
Sampler(s) Name(s): SOPD Phone	Project Manager	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB	LAB USE LEVEL ONLY
1	SAEE-SB0300-000.5-20200629		6/29/20	9:37:00 AM	SOPD	SO	1					1				X	
2	SAEE-SB0301-000.5-20200629		6/29/20	9:40:00 AM	SOPD	SO	1					1				X	
3	SAEE-SB0296-003.0-20200629		6/29/20	9:42:00 AM	SOPD	SO	1					1				X	
4	SAEE-SB0293-003.0-20200629		6/29/20	9:47:00 AM	SOPD	SO	1					1				X	EFLR
5	SAEE-SB0317-002.0-20200629		6/29/20	9:52:00 AM	SOPD	SO	1					1				X	
6	SAEE-SB0318-000.5-20200629		6/29/20	9:58:00 AM	SOPD	SO	1					1				X	
7	SAEE-SB0318-003.0-20200629		6/29/20	10:00:00 AM	SOPD	SO	1					1				X	
8	SAEE-SB0319-002.0-20200629		6/29/20	10:03:00 AM	SOPD	SO	1					1				X	
9	SAEE-SB0013-002.0-20200629		6/29/20	10:08:00 AM	SOPD	SO	1					1				X	
10	SAEE-SB0292-003.0-20200629		6/29/20	10:12:00 AM	SOPD	SO	1					1				X	
11	SAEE-SB0316-002.0-20200629		6/29/20	10:20:00 AM	SOPD	SO	1					1				X	
12	SAEE-SB0315-000.5-20200629		6/29/20	10:24:00 AM	SOPD	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 7/14/2020

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

Initial Assessment ZAG

Label Verification

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by/Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		7/2/20 1645	1	2	7/7/20 0545	2 DV
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID:

On Ice ✓ Cooler Temp. 2.3°C IR

SMM

7.1 7

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA76449

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): SOPD Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB ,	LAB USE ONLY
13	SAEE-SB0315-002.0-20200629		6/29/20	10:26:00 AM	SOPD	SO	1					1				X	
14	SAEE-SB0314-000.5-20200629		6/29/20	10:28:00 AM	SOPD	SO	1					1				X	
15	SAEE-SB0291-003.0-20200629		6/29/20	10:32:00 AM	SOPD	SO	1					1				X	
16	SAEE-SB0313-000.5-20200629		6/29/20	10:37:00 AM	SOPD	SO	1					1				X	
17	SAEE-SB0012-003.0-20200629		6/29/20	10:40:00 AM	SOPD	SO	1					1				X	
18	SAEE-SB0305-000.5-20200629		6/29/20	10:42:00 AM	SOPD	SO	1					1				X	
19	SAEE-SB0312-000.5-20200629		6/29/20	10:44:00 AM	SOPD	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 7/14/2020

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [x] QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

1 Relinquished by Sampler:	Date Time: 7/6/20	Received By: 1	Relinquished By: 2	Date Time: 0745 7/7/20	Received By: 2		
3 Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4		
5 Relinquished by:	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐	Cooler Temp.

Therm. ID:

7.1

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SGS Sample Receipt Summary

Job Number: FA76449 **Client:** _____ **Project:** _____

Date / Time Received: 7/7/2020 9:40:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

7.1
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FA76449: Chain of Custody
Page 3 of 4

Job Change Order: FA76449

Requested Date:	7/13/2020	**Received Date:**	6/30/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	7/14/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	10

Sample #: FA76449-14-19

Dept:

TAT: 10

Change:
Please analyze for SOL104, samples subcontracted to NJ. Thank you.

Above Changes Per: CSR

Date/Time: 7/13/2020 11:15:50 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

7.1

FA76449: Chain of Custody
Page 4 of 4

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-MB1	2G194970.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-1, FA76449-3, FA76449-5, FA76449-6, FA76449-8, FA76449-12, FA76449-13, FA76449-14, FA76449-15

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	108%	29-139%
877-09-8	Tetrachloro-m-xylene	107%	29-139%
2051-24-3	Decachlorobiphenyl	119%	18-153%
2051-24-3	Decachlorobiphenyl	111%	18-153%

Method Blank Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28378-MB1	5G97967.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-18

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	111%	29-139%
877-09-8	Tetrachloro-m-xylene	108%	29-139%
2051-24-3	Decachlorobiphenyl	107%	18-153%
2051-24-3	Decachlorobiphenyl	118%	18-153%

Method Blank Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28378-MB1	XX2451299.D	1	07/14/20	TR	07/09/20	OP28378	GXX7081

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-18

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	116%	29-139%
877-09-8	Tetrachloro-m-xylene	125%	29-139%
2051-24-3	Decachlorobiphenyl	125%	18-153%
2051-24-3	Decachlorobiphenyl	127%	18-153%

Method Blank Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-MB1	2G195071.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-2, FA76449-4, FA76449-7, FA76449-9, FA76449-10, FA76449-11, FA76449-16, FA76449-19

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	114%	29-139%
877-09-8	Tetrachloro-m-xylene	106%	29-139%
2051-24-3	Decachlorobiphenyl	131%	18-153%
2051-24-3	Decachlorobiphenyl	129%	18-153%

Method Blank Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28588-MB1	XX2451592.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-17

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	80%	29-139%
877-09-8	Tetrachloro-m-xylene	86%	29-139%
2051-24-3	Decachlorobiphenyl	82%	18-153%
2051-24-3	Decachlorobiphenyl	87%	18-153%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-BS1	2G194971.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
OP28377-BSD	2G194972.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-1, FA76449-3, FA76449-5, FA76449-6, FA76449-8, FA76449-12, FA76449-13, FA76449-14, FA76449-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	256	128	264	132	3	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	264	132	270	135	2	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	120%	120%	29-139%
877-09-8	Tetrachloro-m-xylene	114%	117%	29-139%
2051-24-3	Decachlorobiphenyl	130%	130%	18-153%
2051-24-3	Decachlorobiphenyl	121%	126%	18-153%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28378-BS1	5G97968.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414
OP28378-BSD	5G97969.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-18

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	233	117	241	121	5	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	264	132	271	136	0	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	101%	103%	29-139%
877-09-8	Tetrachloro-m-xylene	94%	95%	29-139%
2051-24-3	Decachlorobiphenyl	107%	109%	18-153%
2051-24-3	Decachlorobiphenyl	119%	123%	18-153%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-BS1	2G195072.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052
OP28440-BSD	2G195073.D	1	07/14/20	TR	07/13/20	OP28440	G2G5052

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-2, FA76449-4, FA76449-7, FA76449-9, FA76449-10, FA76449-11, FA76449-16, FA76449-19

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	239	120	229	115	4	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	268	134	237	119	12	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	116%	101%	29-139%
877-09-8	Tetrachloro-m-xylene	103%	90%	29-139%
2051-24-3	Decachlorobiphenyl	130%	115%	18-153%
2051-24-3	Decachlorobiphenyl	126%	110%	18-153%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28588-BS1	XX2451593.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091
OP28588-BSD	XX2451594.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-17

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	182	91	195	98	7	37-177/41
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	185	93	209	105	12	33-173/44

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	72%	81%	29-139%
877-09-8	Tetrachloro-m-xylene	74%	85%	29-139%
2051-24-3	Decachlorobiphenyl	78%	91%	18-153%
2051-24-3	Decachlorobiphenyl	78%	88%	18-153%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28377-MS	2G194974.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
OP28377-MSD	2G194975.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049
FA76396-1 [a]	2G194973.D	1	07/13/20	TR	07/09/20	OP28377	G2G5049

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-1, FA76449-3, FA76449-5, FA76449-6, FA76449-8, FA76449-12, FA76449-13, FA76449-14, FA76449-15

CAS No.	Compound	FA76396-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	54 U		206	217	105	208	240	115	10	10-200/65
11104-28-2	Aroclor 1221	54 U			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	54 U			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	54 U			ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	54 U			ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	54 U			ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	23.5	J	206	149	61	208	6220	2981* [b]	191* [c]	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76396-1	Limits
877-09-8	Tetrachloro-m-xylene	65%	101%		29-139%
877-09-8	Tetrachloro-m-xylene	68%	101%		29-139%
2051-24-3	Decachlorobiphenyl	67%	98%		18-153%
2051-24-3	Decachlorobiphenyl	67%	97%		18-153%

(a) Sample used for QC purposes only.
(b) Outside control limits due to matrix interference.
(c) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28378-MS	5G97971.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414
OP28378-MSD	5G97972.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414
FA76449-17 [a]	5G97970.D	1	07/13/20	TR	07/09/20	OP28378	G5G2414

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-18

CAS No.	Compound	FA76449-17 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	56	U	230	321	139	219	309	141	6	10-200/65
11104-28-2	Aroclor 1221	56	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	56	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	56	U		ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	56	U		ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	56	U		ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	4860		230	328	-1968* [b]	219	316	-2071* [b]	5	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76449-17	Limits
877-09-8	Tetrachloro-m-xylene	111%	113%		29-139%
877-09-8	Tetrachloro-m-xylene	111%	112%		29-139%
2051-24-3	Decachlorobiphenyl	115%	111%		18-153%
2051-24-3	Decachlorobiphenyl	125%	126%		18-153%

(a) Sample used for QC purposes only.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28440-MS	2G195177.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055
OP28440-MSD	2G195178.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055
FA76449-9	2G195176.D	1	07/16/20	CP	07/13/20	OP28440	G2G5055

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-2, FA76449-4, FA76449-7, FA76449-9, FA76449-10, FA76449-11, FA76449-16, FA76449-19

CAS No.	Compound	FA76449-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	52	U	206	209	101	217	256	118	20	10-200/65
11104-28-2	Aroclor 1221	52	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	52	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	52	U		ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	52	U		ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	52	U		ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	86.4		206	287	97	217	323	109	12	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76449-9	Limits
877-09-8	Tetrachloro-m-xylene	94%	106%	116%	29-139%
877-09-8	Tetrachloro-m-xylene	89%	98%	107%	29-139%
2051-24-3	Decachlorobiphenyl	100%	110%	126%	18-153%
2051-24-3	Decachlorobiphenyl	100%	109%	125%	18-153%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA76449
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP28588-MS	XX2451596.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091
OP28588-MSD	XX2451597.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091
FA76449-17	XX2451595.D	1	07/24/20	CP	07/22/20	OP28588	GXX7091
FA76449-17	XX2451600.D	5	07/24/20	CP	07/22/20	OP28588	GXX7091

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA76449-17

CAS No.	Compound	FA76449-17 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	54	U	228	201	88	217	186	86	8	10-200/65
11104-28-2	Aroclor 1221	54	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	54	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	54	U		ND			ND		nc	50-150/30
12672-29-6	Aroclor 1248	54	U		ND			ND		nc	50-150/30
11097-69-1	Aroclor 1254	54	U		ND			ND		nc	50-150/44
11096-82-5	Aroclor 1260	3260 [a]		228	3350	88	217	3220	32	4	10-200/65

CAS No.	Surrogate Recoveries	MS	MSD	FA76449-17	FA76449-17	Limits
877-09-8	Tetrachloro-m-xylene	83%	79%	79%	80%	29-139%
877-09-8	Tetrachloro-m-xylene	89%	82%	83%	90%	29-139%
2051-24-3	Decachlorobiphenyl	85%	82%	86%	88%	18-153%
2051-24-3	Decachlorobiphenyl	85%	84%	100%	94%	18-153%

(a) Result is from Run #2.

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.02.07

SGS Job Number: FA78409

Sampling Date: 09/01/20

Report to:

HGL, Inc
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Merritt Island, FL 32953
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ATTN: Denise Rivers

Total number of pages in report: 27

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA78409

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.02.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA78409-1	09/01/20	10:10	PD	09/02/20	SO	Soil	SAEE-SB0314-002.0-20200901
FA78409-2	09/01/20	10:15	PD	09/02/20	SO	Soil	SAEE-SB0315-002.0-20200901
FA78409-3	09/01/20	10:20	PD	09/02/20	SO	Soil	SAEE-SB0318-002.0-20200901
FA78409-4	09/01/20	10:45	PD	09/02/20	AQ	Equipment Blank	SAEE-EB-20200901-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA78409
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 09/01/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA78409-1	**SAEE-SB0314-002.0-20200901**					
Aroclor 1260 [a]		511	67	54	ug/kg	SW846 8082A
FA78409-2	**SAEE-SB0315-002.0-20200901**					
No hits reported in this sample.						
FA78409-3	**SAEE-SB0318-002.0-20200901**					
Aroclor 1254 [a]		2050	67	54	ug/kg	SW846 8082A
FA78409-4	**SAEE-EB-20200901-01**					
No hits reported in this sample.						

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0314-002.0-20200901		
Lab Sample ID:	FA78409-1	**Date Sampled:**	09/01/20
Matrix:	SO - Soil	**Date Received:**	09/02/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	70.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2G197083.D	1	09/10/20 01:12	ANJ	09/08/20 11:00	N:OP29387	N:G2G5120
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	54 U	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	511	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	300% [b]		10-172%
2051-24-3	Decachlorobiphenyl	289% [b]		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0315-002.0-20200901		
Lab Sample ID:	FA78409-2	**Date Sampled:**	09/01/20
Matrix:	SO - Soil	**Date Received:**	09/02/20
		Percent Solids:	83.4
Project:	TQN 118 NASA PRLs; KSC, FL		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent [a]	83.4		%	1	09/08/20 16:25	ANJ	SM2540 G 18TH ED MOD

(a) Analysis performed at SGS Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SAEE-SB0318-002.0-20200901		
Lab Sample ID:	FA78409-3	**Date Sampled:**	09/01/20
Matrix:	SO - Soil	**Date Received:**	09/02/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2453943.D	1	09/18/20 23:48	ANJ	09/08/20 11:00	N:OP29387	N:GXX7158
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	41	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	27	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	2050	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	87%		10-172%
2051-24-3	Decachlorobiphenyl	119%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-EB-20200901-01
Lab Sample ID: FA78409-4
Matrix: AQ - Equipment Blank
Method: SW846 8082A SW846 3510C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 09/01/20
Date Received: 09/02/20
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM65038.D	1	09/04/20 12:36	NM	09/04/20 08:55	OP81890	GMM1358
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.050 U	0.10	0.050	0.040	ug/l	
11104-28-2	Aroclor 1221	0.075 U	0.10	0.075	0.050	ug/l	
11141-16-5	Aroclor 1232	0.075 U	0.10	0.075	0.050	ug/l	
53469-21-9	Aroclor 1242	0.050 U	0.10	0.050	0.040	ug/l	
12672-29-6	Aroclor 1248	0.050 U	0.10	0.050	0.040	ug/l	
11097-69-1	Aroclor 1254	0.050 U	0.10	0.050	0.040	ug/l	
11096-82-5	Aroclor 1260	0.050 U	0.10	0.050	0.040	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		38-127%
2051-24-3	Decachlorobiphenyl	94%		25-137%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando
Chain of Custody

FA78409

SGS - ORLANDO JOB # : PAGE 1 OF 1

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # SKIFF #

Client / Reporting Information		Project Information		Analytical Information	Matrix Codes
Company Name:	Hydro Geologic, Inc.	Project Name:	NASA PRL 217 TAN 118		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid
Address:	2405 N. Courtenay Pkwy STE 203	Street	Kennedy Space Center		
City:	Merritt Island State: FL Zip: 32953	City	Brevard County State FL		
Project Contact:	Denise Rivers Email: drivers@hgl.com	Project #	NS1005.02.07		
Phone #:	910-233-3460	Fax #			
Sampler(s) Name(s) (Printed) Sampler 1:	S. Bryant Sampler 2: P. Duttenhaver	Client Purchase Order #	NS1005		

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	8082 PCB							LAB USE ONLY
1	SAEE-SB0314-002.0-20200901	9/1	1010	PD	SO	1		X								X							
2	SAEE-SB0315-002.0-20200901	9/1	1015	PD	SO	1		X								X							
3	SAEE-SB0318-002.0-20200901	9/1	1020	PD	SO	1		X								X							
4	SAEE-EB-20200901-01	9/1	1045	PD	LIQ	1		X								X							

Turnaround Time (Business days)	Data Deliverable Information	Comments / Remarks
10 Day (Business) Approved By: / Date:	COMMERCIAL "A" (RESULTS ONLY)	NITIAL ASESSMENT
7 Day	COMMERCIAL "B" (RESULTS PLUS QC)	AND VERIFICATION
5 Day	REDT1 (EPA LEVEL 3)	
3 Day *RUSH*	FULLT1 (EPA LEVEL 4)	
2 Day *RUSH*	EDD'S	
1 Day *RUSH*		
Other		
Rush T/A Data Available VIA Email or Lablink		

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		9-2-20 1230	2 JS 9/2 17:30	3 JS 9/2	13:23	4 09/02/20 13:23
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 5.8

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

FA78409: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: FA78409 **Client:** HGI **Project:** NASA PRL 217

Date / Time Received: 9/2/2020 1:23:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (5.7);

Cooler Temps (Corrected) °C: Cooler 1: (5.5);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: JENNAK Date: 9/2/2020 1:23:00 PM Reviewer: _____ Date: _____

Job Change Order: FA78409

Requested Date:	9/15/2020	**Received Date:**	9/2/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/16/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	1

==========

Sample #: FA78409-2

Dept:

TAT: 1

SAEE-SB0315-002.0-20200901

Change:

Per request of client please analyze as XH. Client to be billed for XH only. Thank you.

==========

FA78409: Chain of Custody
Page 3 of 3

Above Changes Per: client, Denise Rivers, via e-mail re **Date/Time:** 9/15/2020 1:54:56 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

QC Evaluation: DOD QSM5.x Limits

Job Number: FA78409
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 09/01/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP81890	SW846 8082A						
OP81890-BS	12674-11-2	Aroclor 1016	BSP	REC	95	%	46-129
OP81890-BS	11096-82-5	Aroclor 1260	BSP	REC	95	%	45-134
OP81890-DUP*	12674-11-2	Aroclor 1016	DUP	RPD	0	%	30
OP81890-DUP*	11097-69-1	Aroclor 1254	DUP	RPD	0	%	30
OP81890-DUP*	11096-82-5	Aroclor 1260	DUP	RPD	0	%	30

* Sample used for QC is not from job FA78409

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA78409
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP81890-MB	MM65035.D	1	09/04/20	NM	09/04/20	OP81890	GMM1358

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.040	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	88%	38-127%
2051-24-3	Decachlorobiphenyl	94%	25-137%

Blank Spike Summary

Job Number: FA78409
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP81890-BS	MM65034.D	1	09/04/20	NM	09/04/20	OP81890	GMM1358

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	1.9	95	57-122
11096-82-5	Aroclor 1260	2	1.9	95	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	87%	38-127%
2051-24-3	Decachlorobiphenyl	96%	25-137%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA78409
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP81890-DUP	MM65037.D	1	09/04/20	NM	09/04/20	OP81890	GMM1358
FA78301-2	MM65036.D	1	09/04/20	NM	09/04/20	OP81890	GMM1358

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-4

CAS No.	Compound	FA78301-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
12674-11-2	Aroclor 1016	1.0 U		ND		nc	18
11104-28-2	Aroclor 1221	1.0 U		ND		nc	30
11141-16-5	Aroclor 1232	1.0 U		ND		nc	30
53469-21-9	Aroclor 1242	1.0 U		ND		nc	30
12672-29-6	Aroclor 1248	1.0 U		ND		nc	30
11097-69-1	Aroclor 1254	1.0 U		ND		nc	30
11096-82-5	Aroclor 1260	1.0 U		ND		nc	24

CAS No.	Surrogate Recoveries	DUP	FA78301-2	Limits
877-09-8	Tetrachloro-m-xylene	23%* [b]	14%* [a]	38-127%
2051-24-3	Decachlorobiphenyl	47%	40%	25-137%

(a) Outside control limits due to matrix interference. Confirmed by batch duplicate.
(b) Outside control limits.

* = Outside of Control Limits.

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SGS

SO

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 783666021211 | Bottle Order Control #
SGS Quote # | FA78409 FA78409

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): PD Phone:

Project Information

Project Name: Dobbins ARB, 1291 C
TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104 -	LAB USE ONLY
1	SAEE-SB0314-002.0-20200901		9/1/20	10:10:00 AM	PD	SO	1					X				X	B13
2	SAEE-SB0315-002.0-20200901		9/1/20	10:15:00 AM	PD	SO	1					X				X	
3	SAEE-SB0318-002.0-20200901		9/1/20	10:20:00 AM	PD	SO	1					X				X	

Initial Assessment 3B PDS
Label Verification

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/16/2020

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X CC

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, NJ. Thank you.

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	9/3/20	1 FedEx	2 FedEx	9/4/20 10:50	2 Shevani G
Relinquished by Sampler:	Date Time: 1700	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID:	On Ice	Cooler Temp. 3.6c-P
5		5					

SGS Sample Receipt Summary

Job Number: FA78409 **Client:** **Project:**

Date / Time Received: 9/4/2020 10:50:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 138666021211

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.3);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

FA78409: Chain of Custody
Page 2 of 3

Job Change Order: FA78409

Requested Date:	9/15/2020	**Received Date:**	9/2/2020
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/16/2020
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	1

Sample #: FA78409-2
Dept:
TAT: 1

SAEE-SB0315-002.0-20200901

Change:
Per request of client please analyze as XH. Client to be billed for XH only.
Thank you.

Above Changes Per: client, Denise Rivers, via e-mail re **Date/Time:** 9/15/2020 1:54:56 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

6.1

FA78409: Chain of Custody
Page 3 of 3

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA78409
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29387-MB1	2G197080.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-1, FA78409-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	127%	24-152%
877-09-8	Tetrachloro-m-xylene	102%	24-152%
2051-24-3	Decachlorobiphenyl	129%	10-172%
2051-24-3	Decachlorobiphenyl	111%	10-172%

Method Blank Summary

Job Number: FA78409
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29387-MB1	XX2453885.D	1	09/18/20	VDT	09/08/20	OP29387	GXX7156

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-1, FA78409-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	90%	24-152%
877-09-8	Tetrachloro-m-xylene	115%	24-152%
2051-24-3	Decachlorobiphenyl	93%	10-172%
2051-24-3	Decachlorobiphenyl	104%	10-172%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA78409
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29387-BS1	2G197081.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120
OP29387-BSD	2G197082.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-1, FA78409-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	236	118	246	123	4	39-169/28
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	205	103	252	126	21	41-171/29

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	109%	114%	24-152%
877-09-8	Tetrachloro-m-xylene	84%	100%	24-152%
2051-24-3	Decachlorobiphenyl	107%	115%	10-172%
2051-24-3	Decachlorobiphenyl	95%	101%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA78409
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29387-MS	2G197084.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120
OP29387-MSD	2G197085.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120
FA78409-1	2G197083.D	1	09/10/20	CP	09/08/20	OP29387	G2G5120

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78409-1, FA78409-3

CAS No.	Compound	FA78409-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	67	U	250	328	131	274	360	131	9	14-200/59
11104-28-2	Aroclor 1221	67	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	67	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	67	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	67	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	67	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	511		250	524	5* [a]	274	594	30	13	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA78409-1	Limits
877-09-8	Tetrachloro-m-xylene	112%	113%	107%	24-152%
877-09-8	Tetrachloro-m-xylene	80%	80%	82%	24-152%
2051-24-3	Decachlorobiphenyl	88%	89%	300%* [b]	10-172%
2051-24-3	Decachlorobiphenyl	105%	92%	289%* [b]	10-172%

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

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.02.07

SGS Job Number: FA78824

Sampling Date: 09/15/20

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: **23**

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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EHS.US.CustomerCare@sgs.com

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Sample Summary

Hydrogeologic, Inc.

Job No: FA78824

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.02.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA78824-1	09/15/20	16:45	TJ	09/17/20	SO	Soil	SAEE-SB0313-002.0-20200915
FA78824-2	09/15/20	17:00	TJ	09/17/20	AQ	Equipment Blank	SAEE-EB-20200915-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA78824

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 9/23/2020 2:55:25

2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 09/15/2020 and were received at SGS North America Inc - Orlando on 09/17/2020 properly preserved, at 3.6 Deg. C and intact. These Samples received an SGS Orlando job number of FA78824. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP82075

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

FA78824-2: All hits confirmed by dual column analysis.

OP82075-BS: Insufficient sample for MS/MSD.

Matrix: SO **Batch ID:** N:OP29585

FA78824-1: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN11537

FA78824-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No**	FA78824
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	9/22/2020 11:23:45 A

On 09/19/2020, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA78824 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP29585

- All samples were extracted within the recommended method holding time.
- Sample(s) FA78824-1MS, FA78824-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP29585-MS/MSD for Aroclor 1016: Outside of program requirements.
- OP29585-BSD for Aroclor 1016: High percent recoveries and no associated positive found in the QC batch.
- OP29585-MS/MSD for Aroclor 1260: Outside control limits due to high level in sample relative to spike amount.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN11537

- Sample(s) JD13223-3DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA78824
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 09/15/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA78824-1	**SAEE-SB0313-002.0-20200915**					
Aroclor 1260 [a]		1120	51	41	ug/kg	SW846 8082A
FA78824-2	**SAEE-EB-20200915-01**					
Aroclor 1260 [b]		0.051 J	0.096	0.048	ug/l	SW846 8082A

(a) Analysis performed at SGS Dayton, NJ.
(b) All hits confirmed by dual column analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0313-002.0-20200915		
Lab Sample ID:	FA78824-1	**Date Sampled:**	09/15/20
Matrix:	SO - Soil	**Date Received:**	09/17/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2454020.D	1	09/21/20 09:50	ANJ	09/19/20 13:05	N:OP29585	N:GXX7161
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	1120	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	94%		10-172%
2051-24-3	Decachlorobiphenyl	104%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-EB-20200915-01
Lab Sample ID: FA78824-2
Matrix: AQ - Equipment Blank
Method: SW846 8082A SW846 3510C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 09/15/20
Date Received: 09/17/20
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	MM65210.D	1	09/18/20 14:24	NJ	09/18/20 07:51	OP82075	GMM1364
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.048 U	0.096	0.048	0.038	ug/l	
11104-28-2	Aroclor 1221	0.072 U	0.096	0.072	0.048	ug/l	
11141-16-5	Aroclor 1232	0.072 U	0.096	0.072	0.048	ug/l	
53469-21-9	Aroclor 1242	0.048 U	0.096	0.048	0.038	ug/l	
12672-29-6	Aroclor 1248	0.048 U	0.096	0.048	0.038	ug/l	
11097-69-1	Aroclor 1254	0.048 U	0.096	0.048	0.038	ug/l	
11096-82-5	Aroclor 1260	0.051	0.096	0.048	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		38-127%
2051-24-3	Decachlorobiphenyl	78%		25-137%

(a) All hits confirmed by dual column analysis.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA 78824

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Hydro GeoLogic, Inc.
Address: 2405 N. Courtenay Pkwy STE 205
City: Merritt Island State: FL Zip: 32953
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #: 910-233-8460
Sampler(s) Name(s) (Printed) Sampler 1: Sampler 2:

Project Information

Project Name: TAN #118 NASA PRL 227
Street: Kennedy Space Center
City State
Project # NS1005.02.07
Fax #
Client Purchase Order #

Analytical Information

8082 PCB

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE 2020	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	LAB USE ONLY
1	SAEE-980313-002.0-20200915	9/15	1645	SO	SO	2		/								X
2	SAEE-EB-20200915-01	9/15	1700	SO	LIQ	1		/								X

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT KSA
REVERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	9/16/20 1255	2	3 KSA 9/17/20		4 FX
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6 9/17/2020 9:45	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.6

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

5.1 5

FA78824: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA78824 **Client:** HYDROGEOLOGIC, INC. **Project:** TAN #118 NASA PRL 227

Date / Time Received: 9/17/2020 9:45:00 AM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☑	☐
2. Trip Blank listed on COC	☐		☑	☐

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: KYRASA Date: 9/17/2020 9:45:00 AM Reviewer: _____ Date: _____

5.1

5

FA78824: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA78824
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 09/15/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP82075	SW846 8082A						
OP82075-BS	12674-11-2	Aroclor 1016	BSP	REC	95	%	46-129
OP82075-BS	11096-82-5	Aroclor 1260	BSP	REC	90	%	45-134

* Sample used for QC is not from job FA78824

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA78824
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP82075-MB	MM65209.D	1	09/18/20	NJ	09/18/20	OP82075	GMM1364

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78824-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	0.040	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.050	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.050	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.040	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.040	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.040	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.040	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	98%	38-127%
2051-24-3	Decachlorobiphenyl	93%	25-137%

Blank Spike Summary

Job Number: FA78824
Account: HGLFLMI Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP82075-BS [a]	MM65208.D	1	09/18/20	NJ	09/18/20	OP82075	GMM1364

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78824-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	1.9	95	57-122
11096-82-5	Aroclor 1260	2	1.8	90	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	93%	38-127%
2051-24-3	Decachlorobiphenyl	87%	25-137%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 9231 5374 7817 | Bottle Order Control #
SGS Quote # | SGS Job # FA78824

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Billing Information (if different from Report to)	
City: Orlando State: FL Zip: 32811	City: State:	Company Name:	
Project Contact: jean.dent-smith@sgs.com E-mail:	Project #:	Street Address:	
Phone #: 407-425-6700 Fax #	Client Purchase Order #:	City: State: Zip:	
Sampler(s) Name(s): TJ Phone:	Project Manager:	Attention:	

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB.SOL104	LAB USE ONLY
1	SAEE-SB0313-002.0-20200915		9/15/20	4:45:00 PM	TJ	SO	1					X				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [X] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [ ] other

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to Dayton, NJ. Thank you.

INITIAL ASESSMENT 3 DAY

LABEL VERIFICATION

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1 FX	2 FX	9/19/20	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp.
5		5	[ ] Intact [ ] Not intact	Therm. ID: FX-4	[X]	1.5C

7.1

7

FA78824: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FA78824 **Client:** _____ **Project:** _____

Date / Time Received: 9/19/2020 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.5);

Cooler Temps (Corrected) °C: Cooler 1: (1.2);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

7.1
7

FA78824: Chain of Custody
Page 2 of 2

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA78824
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29585-MB	XX2454017.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78824-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	87%	24-152%
877-09-8	Tetrachloro-m-xylene	85%	24-152%
2051-24-3	Decachlorobiphenyl	92%	10-172%
2051-24-3	Decachlorobiphenyl	96%	10-172%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA78824
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29585-BS	XX2454018.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161
OP29585-BSD	XX2454019.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78824-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	234	117	304	152 [a]	21	39-169/28
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	211	106	273	137	26	41-171/29

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	95%	112%	24-152%
877-09-8	Tetrachloro-m-xylene	98%	116%	24-152%
2051-24-3	Decachlorobiphenyl	100%	119%	10-172%
2051-24-3	Decachlorobiphenyl	103%	121%	10-172%

(a) High percent recoveries and no associated positive found in the QC batch.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA78824
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP29585-MS	XX2454021.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161
OP29585-MSD	XX2454022.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161
FA78824-1	XX2454020.D	1	09/21/20	JN	09/19/20	OP29585	GXX7161

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA78824-1

CAS No.	Compound	FA78824-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	51	U	223	309	139 [a]	209	282	135 [a]	9	14-200/59
11104-28-2	Aroclor 1221	51	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	51	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	51	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	51	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	51	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	1120		223	1230	49 [b]	209	1120	0* [b]	9	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA78824-1	Limits
877-09-8	Tetrachloro-m-xylene	104%	111%	98%	24-152%
877-09-8	Tetrachloro-m-xylene	108%	107%	94%	24-152%
2051-24-3	Decachlorobiphenyl	106%	102%	94%	10-172%
2051-24-3	Decachlorobiphenyl	131%	112%	104%	10-172%

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

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.07.05

SGS Job Number: FA80643

Sampling Date: 11/10/20

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: 21

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA80643

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA80643-1	11/10/20	08:12	RL	11/10/20	SO	Soil	SAEE-SB0012-000.5-20201110
FA80643-2	11/10/20	08:15	RL	11/10/20	SO	Soil	SAEE-SB0012-001.0-20201110
FA80643-3	11/10/20	08:17	RL	11/10/20	SO	Soil	SAEE-SB0012-002.0-20201110

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA80643

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 11/27/2020 9:19:26

3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 11/10/2020 and were received at SGS North America Inc - Orlando on 11/10/2020 properly preserved, at 1.8 Deg. C and intact. These Samples received an SGS Orlando job number of FA80643. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP30576

Sample(s) FA80643-3 are outside limits due to dilution.

FA80643-1: Analysis performed at SGS Dayton, NJ.

FA80643-2: Analysis performed at SGS Dayton, NJ.

FA80643-3: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN13288

FA80643-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA80643-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA80643-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No**	FA80643
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	11/20/2020 9:27:33 A

On 11/14/2020, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA80643 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP30576

- All samples were extracted within the recommended method holding time.
- Sample(s) JD16307-1MS, JD16307-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- FA80643-3 for Decachlorobiphenyl: Outside control limits due to dilution.
- FA80643-3 for Tetrachloro-m-xylene: Outside control limits due to dilution.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN13288

- Sample(s) JD16349-5DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA80643
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/10/20

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA80643-1	**SAEE-SB0012-000.5-20201110**					
Aroclor 1260 [a]		12300	1200	940	ug/kg	SW846 8082A
FA80643-2	**SAEE-SB0012-001.0-20201110**					
Aroclor 1260 [a]		23900	2300	1800	ug/kg	SW846 8082A
FA80643-3	**SAEE-SB0012-002.0-20201110**					
Aroclor 1260 [a]		102000	5600	4500	ug/kg	SW846 8082A

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0012-000.5-20201110		
Lab Sample ID:	FA80643-1	**Date Sampled:**	11/10/20
Matrix:	SO - Soil	**Date Received:**	11/10/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G101496.D	1	11/19/20 08:56	ANJ	11/16/20 18:20	N:OP30576	N:G5G2526
Run #2 [a]	5G101513.D	20	11/19/20 18:50	ANJ	11/16/20 18:20	N:OP30576	N:G5G2527

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2	10.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	37	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	38	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	53	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	12300 [b]	1200	940	500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%	124%	24-152%
877-09-8	Tetrachloro-m-xylene	86%	113%	24-152%
2051-24-3	Decachlorobiphenyl	80%	110%	10-172%
2051-24-3	Decachlorobiphenyl	91%	130%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-001.0-20201110		
Lab Sample ID:	FA80643-2	**Date Sampled:**	11/10/20
Matrix:	SO - Soil	**Date Received:**	11/10/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G101497.D	1	11/19/20 09:30	ANJ	11/16/20 18:20	N:OP30576	N:G5G2526
Run #2 [a]	5G101514.D	40	11/19/20 19:23	ANJ	11/16/20 18:20	N:OP30576	N:G5G2527

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2	10.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	57	45	30	ug/kg	
11096-82-5	Aroclor 1260	23900 [b]	2300	1800	960	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%	116%	24-152%
877-09-8	Tetrachloro-m-xylene	82%	102%	24-152%
2051-24-3	Decachlorobiphenyl	77%	106%	10-172%
2051-24-3	Decachlorobiphenyl	95%	122%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-002.0-20201110		
Lab Sample ID:	FA80643-3	**Date Sampled:**	11/10/20
Matrix:	SO - Soil	**Date Received:**	11/10/20
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G101498.D	1	11/19/20 10:03	ANJ	11/16/20 18:20	N:OP30576	N:G5G2526
Run #2 [a]	5G101515.D	100	11/19/20 19:56	ANJ	11/16/20 18:20	N:OP30576	N:G5G2527

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2	10.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	102000 [b]	5600	4500	2400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%	0% [c]	24-152%
877-09-8	Tetrachloro-m-xylene	88%	0% [c]	24-152%
2051-24-3	Decachlorobiphenyl	104%	0% [c]	10-172%
2051-24-3	Decachlorobiphenyl	124%	0% [c]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA 80643

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Robert Lynch Sampler 2:

Project Information

Project Name: PRL 227 LOC 3
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.05
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB, SOL104	LAB USE ONLY
1	SAEE-SB0012-000.5-20201110	11/10/20	0812	RL	SO	1										X	
2	SAEE-SB0012-001.0-20201110	11/10/20	0815	RL	SO	1										X	
3	SAEE-SB0012-002.0-20201110	11/10/20	0817	RL	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT DO
VERIFICATION DO

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	11/10/20	2 JS 11/10 1524	3 JS 11/10	1639	4 11/10/20 16:39
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 1.8

SGS COC_111020 Rev 031318

http://www.sgs.com/en/terms-and-conditions

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FA80643: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA80643 **Client:** HGL **Project:** PRL 227

Date / Time Received: 11/10/2020 4:39:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☑	☐
2. Trip Blank listed on COC	☐		☑	☐

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: DEVANO Date: 11/10/2020 4:39:00 P Reviewer: _____ Date: _____

QC Evaluation: DOD QSM5.x Limits

Job Number: FA80643
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/10/20

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA80643

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SGS

Soil

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 4231 5381 9230 | Bottle Order Control # JS-112220-79 | SGS Quote # | SGS Job # FA80643

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Company Name
City: Orlando State: FL Zip: 32811	City State	Street Address
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	City State Zip
Phone #: 407-425-6700 Fax #	Client Purchase Order #	Attention:
Sampler(s) Name(s): RL Phone	Project Manager	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	PB082SOXHLETPCB_SOL104	LAB USE ONLY
1	SAEE-SB0012-000.5-20201110		11/10/20	8:12:00 AM	RL	SO	1					X				X	
2	SAEE-SB0012-001.0-20201110		11/10/20	8:15:00 AM	RL	SO	1					X				X	B27
3	SAEE-SB0012-002.0-20201110		11/10/20	8:17:00 AM	RL	SO	1					X				X	

Turnaround Time (Business days)

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 11/24/2020

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Approved By (SGS PM) / Date: INITIAL ASSESSMENT 2B 5PP

LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract samples to SGS Dayton, thank you.

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	11/13/20	1 Fedex	2 Fedex	11/14/20 9:30	2 DH
Relinquished by Sampler:	Date Time: 1700	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not Intact	Preserved where applicable / Therm ID:	On Ice / Cooler Temp
5		5				2-4°C PR IR4

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FA80643: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FA80643 **Client:** _____ **Project:** _____

Date / Time Received: 11/14/2020 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.4);

Cooler Temps (Corrected) °C: Cooler 1: (1.9);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

FA80643: Chain of Custody
Page 2 of 2

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA80643
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP30576-MB1	5G101483.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA80643-1, FA80643-2, FA80643-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	102%	24-152%
877-09-8	Tetrachloro-m-xylene	98%	24-152%
2051-24-3	Decachlorobiphenyl	93%	10-172%
2051-24-3	Decachlorobiphenyl	116%	10-172%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA80643
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP30576-BS1	5G101484.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526
OP30576-BSD	5G101485.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA80643-1, FA80643-2, FA80643-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	216	108	212	106	2	39-169/28
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	200	100	170	85	16	41-171/29

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	89%	77%	24-152%
877-09-8	Tetrachloro-m-xylene	83%	70%	24-152%
2051-24-3	Decachlorobiphenyl	79%	69%	10-172%
2051-24-3	Decachlorobiphenyl	97%	85%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA80643
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP30576-MS	5G101504.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526
OP30576-MSD	5G101505.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526
JD16307-1	5G101499.D	1	11/19/20	VDT	11/16/20	OP30576	G5G2526

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA80643-1, FA80643-2, FA80643-3

CAS No.	Compound	JD16307-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		207	186	90	201	191	95	3	14-200/59
11104-28-2	Aroclor 1221	ND			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	ND			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	ND			ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	ND			ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	ND			ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	ND		207	298	144	201	244	121	20	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	JD16307-1	Limits
877-09-8	Tetrachloro-m-xylene	78%	73%	57%	24-152%
877-09-8	Tetrachloro-m-xylene	80%	71%	56%	24-152%
2051-24-3	Decachlorobiphenyl	76%	72%	57%	10-172%
2051-24-3	Decachlorobiphenyl	89%	85%	64%	10-172%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.07.07

SGS Job Number: FA85512

Sampling Date: 05/12/21

Report to:

Hydrogeologic, Inc.;hfowler@hgl.com

drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: 125

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-1	05/12/21	09:00	HFJB	05/13/21	SO	Soil	SAEE-SB0321-001.0-20210512
FA85512-2	05/12/21	09:01	HFJB	05/13/21	SO	Soil	SAEE-SB0321-002.0-20210512
FA85512-3	05/12/21	09:02	HFJB	05/13/21	SO	Soil	SAEE-SB0321-003.0-20210512
FA85512-4	05/12/21	09:05	HFJB	05/13/21	SO	Soil	SAEE-SB0322-001.0-20210512
FA85512-5	05/12/21	09:06	HFJB	05/13/21	SO	Soil	SAEE-SB0322-002.0-20210512
FA85512-6	05/12/21	09:07	HFJB	05/13/21	SO	Soil	SAEE-SB0322-003.0-20210512
FA85512-7	05/12/21	09:19	HFJB	05/13/21	SO	Soil	SAEE-SB0323-001.0-20210512
FA85512-8	05/12/21	09:20	HFJB	05/13/21	SO	Soil	SAEE-SB0323-002.0-20210512
FA85512-9	05/12/21	09:21	HFJB	05/13/21	SO	Soil	SAEE-SB0323-003.0-20210512
FA85512-10	05/12/21	09:29	HFJB	05/13/21	SO	Soil	SAEE-SB0324-001.0-20210512
FA85512-11	05/12/21	09:30	HFJB	05/13/21	SO	Soil	SAEE-SB0324-002.0-20210512
FA85512-12	05/12/21	09:31	HFJB	05/13/21	SO	Soil	SAEE-SB0324-003.0-20210512
FA85512-13	05/12/21	09:41	HFJB	05/13/21	SO	Soil	SAEE-SB0325-001.0-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-14	05/12/21	09:42	HFJB	05/13/21	SO	Soil	SAEE-SB0325-002.0-20210512
FA85512-15	05/12/21	09:43	HFJB	05/13/21	SO	Soil	SAEE-SB0325-003.0-20210512
FA85512-16	05/12/21	09:48	HFJB	05/13/21	SO	Soil	SAEE-SB0326-001.0-20210512
FA85512-17	05/12/21	09:49	HFJB	05/13/21	SO	Soil	SAEE-SB0326-002.0-20210512
FA85512-18	05/12/21	09:50	HFJB	05/13/21	SO	Soil	SAEE-SB0326-003.0-20210512
FA85512-19	05/12/21	09:57	HFJB	05/13/21	SO	Soil	SAEE-SB0327-000.5-20210512
FA85512-20	05/12/21	09:58	HFJB	05/13/21	SO	Soil	SAEE-SB0327-001.0-20210512
FA85512-21	05/12/21	09:59	HFJB	05/13/21	SO	Soil	SAEE-SB0327-002.0-20210512
FA85512-22	05/12/21	10:00	HFJB	05/13/21	SO	Soil	SAEE-SB0327-003.0-20210512
FA85512-23	05/12/21	10:14	HFJB	05/13/21	SO	Soil	SAEE-SB0328-000.5-20210512
FA85512-24	05/12/21	10:15	HFJB	05/13/21	SO	Soil	SAEE-SB0328-001.0-20210512
FA85512-25	05/12/21	10:16	HFJB	05/13/21	SO	Soil	SAEE-SB0328-002.0-20210512
FA85512-26	05/12/21	10:17	HFJB	05/13/21	SO	Soil	SAEE-SB0328-003.0-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-27	05/12/21	10:30	HFJB	05/13/21	SO	Soil	SAEE-SB0329-000.5-20210512
FA85512-28	05/12/21	10:31	HFJB	05/13/21	SO	Soil	SAEE-SB0329-001.0-20210512
FA85512-29	05/12/21	10:32	HFJB	05/13/21	SO	Soil	SAEE-SB0329-002.0-20210512
FA85512-30	05/12/21	10:33	HFJB	05/13/21	SO	Soil	SAEE-SB0329-003.0-20210512
FA85512-31	05/12/21	10:41	HFJB	05/13/21	SO	Soil	SAEE-SB0330-000.5-20210512
FA85512-32	05/12/21	10:42	HFJB	05/13/21	SO	Soil	SAEE-SB0330-001.0-20210512
FA85512-33	05/12/21	10:43	HFJB	05/13/21	SO	Soil	SAEE-SB0330-002.0-20210512
FA85512-34	05/12/21	10:44	HFJB	05/13/21	SO	Soil	SAEE-SB0330-003.0-20210512
FA85512-35	05/12/21	10:51	HFJB	05/13/21	SO	Soil	SAEE-SB0331-000.5-20210512
FA85512-36	05/12/21	10:52	HFJB	05/13/21	SO	Soil	SAEE-SB0331-001.0-20210512
FA85512-37	05/12/21	10:53	HFJB	05/13/21	SO	Soil	SAEE-SB0331-002.0-20210512
FA85512-38	05/12/21	10:54	HFJB	05/13/21	SO	Soil	SAEE-SB0331-003.0-20210512
FA85512-39	05/12/21	11:04	HFJB	05/13/21	SO	Soil	SAEE-SB0332-000.5-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-40	05/12/21	11:05	HFJB	05/13/21	SO	Soil	SAEE-SB0332-001.0-20210512
FA85512-41	05/12/21	11:06	HFJB	05/13/21	SO	Soil	SAEE-SB0332-002.0-20210512
FA85512-42	05/12/21	11:07	HFJB	05/13/21	SO	Soil	SAEE-SB0332-003.0-20210512
FA85512-43	05/12/21	11:34	HFJB	05/13/21	SO	Soil	SAEE-SB0333-000.5-20210512
FA85512-44	05/12/21	11:35	HFJB	05/13/21	SO	Soil	SAEE-SB0333-001.0-20210512
FA85512-45	05/12/21	11:36	HFJB	05/13/21	SO	Soil	SAEE-SB0333-002.0-20210512
FA85512-46	05/12/21	11:37	HFJB	05/13/21	SO	Soil	SAEE-SB0333-003.0-20210512
FA85512-47	05/12/21	11:43	HFJB	05/13/21	SO	Soil	SAEE-SB0334-000.5-20210512
FA85512-48	05/12/21	11:44	HFJB	05/13/21	SO	Soil	SAEE-SB0334-001.0-20210512
FA85512-49	05/12/21	11:45	HFJB	05/13/21	SO	Soil	SAEE-SB0334-002.0-20210512
FA85512-50	05/12/21	11:46	HFJB	05/13/21	SO	Soil	SAEE-SB0334-003.0-20210512
FA85512-51	05/12/21	11:52	HFJB	05/13/21	SO	Soil	SAEE-SB0335-000.5-20210512
FA85512-52	05/12/21	11:53	HFJB	05/13/21	SO	Soil	SAEE-SB0335-001.0-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-53	05/12/21	11:54	HFJB	05/13/21	SO	Soil	SAEE-SB0335-002.0-20210512
FA85512-54	05/12/21	11:55	HFJB	05/13/21	SO	Soil	SAEE-SB0335-003.0-20210512
FA85512-55	05/12/21	12:03	HFJB	05/13/21	SO	Soil	SAEE-SB0336-000.5-20210512
FA85512-56	05/12/21	12:04	HFJB	05/13/21	SO	Soil	SAEE-SB0336-001.0-20210512
FA85512-57	05/12/21	12:05	HFJB	05/13/21	SO	Soil	SAEE-SB0336-002.0-20210512
FA85512-58	05/12/21	12:06	HFJB	05/13/21	SO	Soil	SAEE-SB0336-003.0-20210512
FA85512-59	05/12/21	12:26	HFJB	05/13/21	SO	Soil	SAEE-SB0337-000.5-20210512
FA85512-60	05/12/21	12:27	HFJB	05/13/21	SO	Soil	SAEE-SB0337-001.0-20210512
FA85512-61	05/12/21	12:28	HFJB	05/13/21	SO	Soil	SAEE-SB0337-002.0-20210512
FA85512-62	05/12/21	12:29	HFJB	05/13/21	SO	Soil	SAEE-SB0337-003.0-20210512
FA85512-63	05/12/21	12:30	HFJB	05/13/21	SO	Soil	SAEE-SB0337-004.0-20210512
FA85512-64	05/12/21	12:51	HFJB	05/13/21	SO	Soil	SAEE-SB0338-000.5-20210512
FA85512-65	05/12/21	12:52	HFJB	05/13/21	SO	Soil	SAEE-SB0338-001.0-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA85512

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA85512-66	05/12/21	12:53	HFJB	05/13/21	SO	Soil	SAEE-SB0338-002.0-20210512
FA85512-67	05/12/21	12:54	HFJB	05/13/21	SO	Soil	SAEE-SB0338-003.0-20210512

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA85512

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 6/15/2021 4:32:57 PM

67 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 05/12/2021 and were received at SGS North America Inc - Orlando on 05/13/2021 properly preserved, at 4.2 Deg. C and intact. These Samples received an SGS Orlando job number of FA85512. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP33360

FA85512-1 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-1: Analysis performed at SGS Dayton, NJ.

FA85512-2: Analysis performed at SGS Dayton, NJ.

FA85512-3 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-3: Analysis performed at SGS Dayton, NJ.

FA85512-4: Analysis performed at SGS Dayton, NJ.

FA85512-6: Analysis performed at SGS Dayton, NJ.

FA85512-7 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-7: Analysis performed at SGS Dayton, NJ.

FA85512-8: Analysis performed at SGS Dayton, NJ.

FA85512-9: Analysis performed at SGS Dayton, NJ.

FA85512-10: Analysis performed at SGS Dayton, NJ.

FA85512-11 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-11: Analysis performed at SGS Dayton, NJ.

FA85512-12 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-10 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-12: Analysis performed at SGS Dayton, NJ.

FA85512-13 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-13: Analysis performed at SGS Dayton, NJ.

FA85512-14 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-14: Analysis performed at SGS Dayton, NJ.

FA85512-15 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-15: Analysis performed at SGS Dayton, NJ.

FA85512-16 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-16: Analysis performed at SGS Dayton, NJ.

FA85512-17 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-17: Analysis performed at SGS Dayton, NJ.

FA85512-18 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-18: Analysis performed at SGS Dayton, NJ.

FA85512-19 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-19: Analysis performed at SGS Dayton, NJ.

FA85512-2 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-20 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-20: Analysis performed at SGS Dayton, NJ.

FA85512-4 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-6 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-8 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

FA85512-9 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

Matrix: SO **Batch ID:** N:OP33361

FA85512-21: Analysis performed at SGS Dayton, NJ.
FA85512-22: Analysis performed at SGS Dayton, NJ.
FA85512-23: Analysis performed at SGS Dayton, NJ.
FA85512-24: Analysis performed at SGS Dayton, NJ.
FA85512-25: Analysis performed at SGS Dayton, NJ.
FA85512-26: Analysis performed at SGS Dayton, NJ.
FA85512-27: Analysis performed at SGS Dayton, NJ.
FA85512-28: Analysis performed at SGS Dayton, NJ.
FA85512-29: Analysis performed at SGS Dayton, NJ.
FA85512-30: Analysis performed at SGS Dayton, NJ.
FA85512-31: Analysis performed at SGS Dayton, NJ.
FA85512-32: Analysis performed at SGS Dayton, NJ.
FA85512-33: Analysis performed at SGS Dayton, NJ.
FA85512-34: Analysis performed at SGS Dayton, NJ.
FA85512-35: Analysis performed at SGS Dayton, NJ.
FA85512-36: Analysis performed at SGS Dayton, NJ.
FA85512-37: Analysis performed at SGS Dayton, NJ.
FA85512-38: Analysis performed at SGS Dayton, NJ.
FA85512-39: Analysis performed at SGS Dayton, NJ.
FA85512-40: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP33362

FA85512-41: Analysis performed at SGS Dayton, NJ.
FA85512-42: Analysis performed at SGS Dayton, NJ.
FA85512-43: Analysis performed at SGS Dayton, NJ.
FA85512-44: Analysis performed at SGS Dayton, NJ.
FA85512-45: Analysis performed at SGS Dayton, NJ.
FA85512-46: Analysis performed at SGS Dayton, NJ.
FA85512-47: Analysis performed at SGS Dayton, NJ.
FA85512-48: Analysis performed at SGS Dayton, NJ.
FA85512-49: Analysis performed at SGS Dayton, NJ.
FA85512-50: Analysis performed at SGS Dayton, NJ.
FA85512-51: Analysis performed at SGS Dayton, NJ.
FA85512-52: Analysis performed at SGS Dayton, NJ.
FA85512-53: Analysis performed at SGS Dayton, NJ.
FA85512-54: Analysis performed at SGS Dayton, NJ.
FA85512-55: Analysis performed at SGS Dayton, NJ.
FA85512-56: Analysis performed at SGS Dayton, NJ.
FA85512-57: Analysis performed at SGS Dayton, NJ.
FA85512-58: Analysis performed at SGS Dayton, NJ.
FA85512-59: Analysis performed at SGS Dayton, NJ.
FA85512-60: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP33363

FA85512-61: Analysis performed at SGS Dayton, NJ.
FA85512-62: Analysis performed at SGS Dayton, NJ.
FA85512-63: Analysis performed at SGS Dayton, NJ.
FA85512-64: Analysis performed at SGS Dayton, NJ.
FA85512-65: Analysis performed at SGS Dayton, NJ.
FA85512-66: Analysis performed at SGS Dayton, NJ.
FA85512-67: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP33599

FA85512-5: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN18343

FA85512-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN18345

FA85512-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-5 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-6 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-7 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-8 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-9 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-10 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-11 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-12 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-13 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-14 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-15 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-20 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-21 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-22 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN18347

FA85512-23 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-24 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-25 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-26 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-27 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-28 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-29 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-30 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-31 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-32 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-33 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-34 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-35 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-36 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-37 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-38 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-39 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-40 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-41 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-42 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN18348

FA85512-43 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-44 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-45 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-46 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-47 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA85512-48 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-49 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-50 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-51 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-52 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-53 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-54 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-55 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-56 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-57 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-58 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-59 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-60 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-61 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-62 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN18349

FA85512-63 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-64 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-65 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-66 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA85512-67 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____
Ariel Hartney, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FA85512
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	8/17/2021 4:38:27 PM

On 05/15/2021, 67 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA85512 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP33360

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA85512-1MS, FA85512-1MSD, OP33360-MSMSD were used as the QC samples indicated.
- FA85512-16 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-4 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-6 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-2 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-7 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-8 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-9 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-10 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-11 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-19 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-3 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-12 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-1 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-14 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- OP33360-BS1 for Aroclor 1016: Outside program requirements bias high and no associated positive found in the QC batch.
- FA85512-18 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-17 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-20 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-15 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.
- FA85512-13 for Aroclor 1016: This compound is outside the DOD limits in the associated BS biased high.

Matrix: SO **Batch ID:** OP33361

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA85512-21MS, FA85512-21MSD, OP33361-MSMSD were used as the QC samples indicated.
- Sample(s) FA85512-26, FA85512-29 have surrogates outside control limits. Probable cause due to matrix interference.
- FA85512-26 for Decachlorobiphenyl: High percent recoveries and no positive found in the sample.
- FA85512-26 for Tetrachloro-m-xylene: High percent recoveries and no positive found in the sample.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP33361

- FA85512-29 for Tetrachloro-m-xylene: Outside program requirements bias high and no positive found in the sample.
- FA85512-29 for Tetrachloro-m-xylene: High percent recoveries and no positive found in the sample.
- FA85512-29 for Decachlorobiphenyl: High percent recoveries and no positive found in the sample.

Matrix: SO **Batch ID:** OP33362

- All samples were extracted within the recommended method holding time.
- Sample(s) FA85512-41MS, FA85512-41MSD, OP33362-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA85512-45, FA85512-46, FA85512-48, FA85512-49, FA85512-52 have surrogates outside control limits. Probable cause due to matrix interference.
- FA85512-48 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA85512-45 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA85512-46 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA85512-49 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA85512-52 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP33363

- All samples were extracted within the recommended method holding time.
- Sample(s) FA85512-61MS, FA85512-61MSD, OP33363-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Aroclor 1260 are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Aroclor 1260 are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for Aroclor 1254 are outside control limits for sample OP33363-MSD. Probable cause due to sample homogeneity.
- OP33363-MS for Aroclor 1260: Outside control limits due to presence of other Aroclor pattern.
- OP33363-MSD for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP33599

- All samples were extracted within the recommended method holding time.
- Sample(s) FA85512-5MS, FA85512-5MSD, OP33599-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN18343

- Sample(s) JD23318-23RDUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN18345

- Sample(s) FA85512-3DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN18347

- Sample(s) FA85512-25DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN18348

- Sample(s) FA85512-43DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN18349

- Sample(s) FA85512-63DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method

FA85512-1 **SAEE-SB0321-001.0-20210512**

No hits reported in this sample.

FA85512-2 **SAEE-SB0321-002.0-20210512**

No hits reported in this sample.

FA85512-3 **SAEE-SB0321-003.0-20210512**

No hits reported in this sample.

FA85512-4 **SAEE-SB0322-001.0-20210512**

No hits reported in this sample.

FA85512-5 **SAEE-SB0322-002.0-20210512**

No hits reported in this sample.

FA85512-6 **SAEE-SB0322-003.0-20210512**

No hits reported in this sample.

FA85512-7 **SAEE-SB0323-001.0-20210512**

No hits reported in this sample.

FA85512-8 **SAEE-SB0323-002.0-20210512**

No hits reported in this sample.

FA85512-9 **SAEE-SB0323-003.0-20210512**

No hits reported in this sample.

FA85512-10 **SAEE-SB0324-001.0-20210512**

No hits reported in this sample.

FA85512-11 **SAEE-SB0324-002.0-20210512**

No hits reported in this sample.

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method

FA85512-12 **SAEE-SB0324-003.0-20210512**

No hits reported in this sample.

FA85512-13 **SAEE-SB0325-001.0-20210512**

No hits reported in this sample.

FA85512-14 **SAEE-SB0325-002.0-20210512**

No hits reported in this sample.

FA85512-15 **SAEE-SB0325-003.0-20210512**

No hits reported in this sample.

FA85512-16 **SAEE-SB0326-001.0-20210512**

No hits reported in this sample.

FA85512-17 **SAEE-SB0326-002.0-20210512**

No hits reported in this sample.

FA85512-18 **SAEE-SB0326-003.0-20210512**

No hits reported in this sample.

FA85512-19 **SAEE-SB0327-000.5-20210512**

No hits reported in this sample.

FA85512-20 **SAEE-SB0327-001.0-20210512**

No hits reported in this sample.

FA85512-21 **SAEE-SB0327-002.0-20210512**

No hits reported in this sample.

FA85512-22 **SAEE-SB0327-003.0-20210512**

No hits reported in this sample.

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA85512-23	**SAEE-SB0328-000.5-20210512**					
Aroclor 1260 [a]		42.2	41	33	ug/kg	SW846 8082A
FA85512-24	**SAEE-SB0328-001.0-20210512**					
Aroclor 1260 [a]		21.1 J	40	32	ug/kg	SW846 8082A
FA85512-25	**SAEE-SB0328-002.0-20210512**					
No hits reported in this sample.						
FA85512-26	**SAEE-SB0328-003.0-20210512**					
No hits reported in this sample.						
FA85512-27	**SAEE-SB0329-000.5-20210512**					
No hits reported in this sample.						
FA85512-28	**SAEE-SB0329-001.0-20210512**					
Aroclor 1260 [a]		54.7	45	36	ug/kg	SW846 8082A
FA85512-29	**SAEE-SB0329-002.0-20210512**					
No hits reported in this sample.						
FA85512-30	**SAEE-SB0329-003.0-20210512**					
No hits reported in this sample.						
FA85512-31	**SAEE-SB0330-000.5-20210512**					
Aroclor 1260 [a]		36.4 J	40	32	ug/kg	SW846 8082A
FA85512-32	**SAEE-SB0330-001.0-20210512**					
No hits reported in this sample.						
FA85512-33	**SAEE-SB0330-002.0-20210512**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA85512-34	**SAEE-SB0330-003.0-20210512**					
No hits reported in this sample.						
FA85512-35	**SAEE-SB0331-000.5-20210512**					
Aroclor 1260 [a]		44.6	43	34	ug/kg	SW846 8082A
FA85512-36	**SAEE-SB0331-001.0-20210512**					
No hits reported in this sample.						
FA85512-37	**SAEE-SB0331-002.0-20210512**					
No hits reported in this sample.						
FA85512-38	**SAEE-SB0331-003.0-20210512**					
No hits reported in this sample.						
FA85512-39	**SAEE-SB0332-000.5-20210512**					
Aroclor 1254 [a]		253	41	33	ug/kg	SW846 8082A
Aroclor 1260 [a]		117	41	33	ug/kg	SW846 8082A
FA85512-40	**SAEE-SB0332-001.0-20210512**					
Aroclor 1254 [a]		383	40	32	ug/kg	SW846 8082A
FA85512-41	**SAEE-SB0332-002.0-20210512**					
No hits reported in this sample.						
FA85512-42	**SAEE-SB0332-003.0-20210512**					
No hits reported in this sample.						
FA85512-43	**SAEE-SB0333-000.5-20210512**					
Aroclor 1254 [a]		160	53	43	ug/kg	SW846 8082A
FA85512-44	**SAEE-SB0333-001.0-20210512**					
Aroclor 1254 [a]		3480	280	230	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA85512-45	**SAEE-SB0333-002.0-20210512**					
Aroclor 1254 [a]		48.5 J	52	41	ug/kg	SW846 8082A
FA85512-46	**SAEE-SB0333-003.0-20210512**					
No hits reported in this sample.						
FA85512-47	**SAEE-SB0334-000.5-20210512**					
Aroclor 1254 [a]		289	54	43	ug/kg	SW846 8082A
FA85512-48	**SAEE-SB0334-001.0-20210512**					
Aroclor 1254 [a]		1470	260	210	ug/kg	SW846 8082A
FA85512-49	**SAEE-SB0334-002.0-20210512**					
Aroclor 1254 [a]		589	56	45	ug/kg	SW846 8082A
FA85512-50	**SAEE-SB0334-003.0-20210512**					
Aroclor 1254 [a]		54.7	54	43	ug/kg	SW846 8082A
FA85512-51	**SAEE-SB0335-000.5-20210512**					
Aroclor 1254 [a]		508	52	42	ug/kg	SW846 8082A
FA85512-52	**SAEE-SB0335-001.0-20210512**					
Aroclor 1254 [a]		5450	530	420	ug/kg	SW846 8082A
FA85512-53	**SAEE-SB0335-002.0-20210512**					
Aroclor 1254 [a]		417	50	40	ug/kg	SW846 8082A
FA85512-54	**SAEE-SB0335-003.0-20210512**					
No hits reported in this sample.						
FA85512-55	**SAEE-SB0336-000.5-20210512**					
Aroclor 1254 [a]		203	50	40	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA85512-56	**SAEE-SB0336-001.0-20210512**					
Aroclor 1254 [a]		145	50	40	ug/kg	SW846 8082A
FA85512-57	**SAEE-SB0336-002.0-20210512**					
No hits reported in this sample.						
FA85512-58	**SAEE-SB0336-003.0-20210512**					
No hits reported in this sample.						
FA85512-59	**SAEE-SB0337-000.5-20210512**					
Aroclor 1254 [a]		309	49	40	ug/kg	SW846 8082A
FA85512-60	**SAEE-SB0337-001.0-20210512**					
Aroclor 1254 [a]		200	47	38	ug/kg	SW846 8082A
FA85512-61	**SAEE-SB0337-002.0-20210512**					
Aroclor 1254 [a]		872	50	40	ug/kg	SW846 8082A
FA85512-62	**SAEE-SB0337-003.0-20210512**					
Aroclor 1254 [a]		228	52	42	ug/kg	SW846 8082A
FA85512-63	**SAEE-SB0337-004.0-20210512**					
Aroclor 1254 [a]		54.2	54	43	ug/kg	SW846 8082A
FA85512-64	**SAEE-SB0338-000.5-20210512**					
Aroclor 1254 [a]		31.0 J	52	41	ug/kg	SW846 8082A
FA85512-65	**SAEE-SB0338-001.0-20210512**					
Aroclor 1254 [a]		231	48	38	ug/kg	SW846 8082A
FA85512-66	**SAEE-SB0338-002.0-20210512**					
Aroclor 1254 [a]		96.8	51	41	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA85512-67	**SAEE-SB0338-003.0-20210512**					
Aroclor 1254 [a]		1580	51	40	ug/kg	SW846 8082A

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0321-001.0-20210512		
Lab Sample ID:	FA85512-1	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107160.D	1	05/28/21 08:18	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	30	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	48%		24-152%
877-09-8	Tetrachloro-m-xylene	49%		24-152%
2051-24-3	Decachlorobiphenyl	67%		10-172%
2051-24-3	Decachlorobiphenyl	71%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0321-002.0-20210512		
Lab Sample ID:	FA85512-2	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107163.D	1	05/28/21 09:55	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	75%		24-152%
2051-24-3	Decachlorobiphenyl	91%		10-172%
2051-24-3	Decachlorobiphenyl	93%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0321-003.0-20210512		
Lab Sample ID:	FA85512-3	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107164.D	1	05/28/21 10:27	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	55	51	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	29	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		24-152%
877-09-8	Tetrachloro-m-xylene	73%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	93%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0322-001.0-20210512		
Lab Sample ID:	FA85512-4	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107165.D	1	05/28/21 11:00	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	31	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	93%		10-172%
2051-24-3	Decachlorobiphenyl	97%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0322-002.0-20210512		
Lab Sample ID:	FA85512-5	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466348.D	1	06/06/21 22:52	ANJ	06/03/21 16:30	N:OP33599	N:GXX7458
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	30	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	98%		24-152%
2051-24-3	Decachlorobiphenyl	101%		10-172%
2051-24-3	Decachlorobiphenyl	112%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0322-003.0-20210512		
Lab Sample ID:	FA85512-6	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107172.D	1	05/28/21 14:45	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		24-152%
877-09-8	Tetrachloro-m-xylene	74%		24-152%
2051-24-3	Decachlorobiphenyl	80%		10-172%
2051-24-3	Decachlorobiphenyl	85%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0323-001.0-20210512		
Lab Sample ID:	FA85512-7	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107173.D	1	05/28/21 15:18	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		24-152%
877-09-8	Tetrachloro-m-xylene	80%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	97%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0323-002.0-20210512		
Lab Sample ID:	FA85512-8	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107174.D	1	05/28/21 15:50	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		24-152%
877-09-8	Tetrachloro-m-xylene	67%		24-152%
2051-24-3	Decachlorobiphenyl	75%		10-172%
2051-24-3	Decachlorobiphenyl	79%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0323-003.0-20210512		
Lab Sample ID:	FA85512-9	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107175.D	1	05/28/21 16:22	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		24-152%
877-09-8	Tetrachloro-m-xylene	75%		24-152%
2051-24-3	Decachlorobiphenyl	84%		10-172%
2051-24-3	Decachlorobiphenyl	89%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0324-001.0-20210512		
Lab Sample ID:	FA85512-10	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107176.D	1	05/28/21 16:54	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	110%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0324-002.0-20210512		
Lab Sample ID:	FA85512-11	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107177.D	1	05/28/21 17:27	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	85%		24-152%
2051-24-3	Decachlorobiphenyl	95%		10-172%
2051-24-3	Decachlorobiphenyl	101%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0324-003.0-20210512		
Lab Sample ID:	FA85512-12	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107178.D	1	05/28/21 17:59	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	55%		24-152%
877-09-8	Tetrachloro-m-xylene	53%		24-152%
2051-24-3	Decachlorobiphenyl	59%		10-172%
2051-24-3	Decachlorobiphenyl	63%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-001.0-20210512		
Lab Sample ID:	FA85512-13	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107184.D	1	05/28/21 21:12	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	66%		24-152%
877-09-8	Tetrachloro-m-xylene	63%		24-152%
2051-24-3	Decachlorobiphenyl	74%		10-172%
2051-24-3	Decachlorobiphenyl	77%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-002.0-20210512		
Lab Sample ID:	FA85512-14	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107185.D	1	05/28/21 21:44	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	36	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	104%		10-172%
2051-24-3	Decachlorobiphenyl	112%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-003.0-20210512		
Lab Sample ID:	FA85512-15	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107186.D	1	05/28/21 22:17	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		24-152%
877-09-8	Tetrachloro-m-xylene	77%		24-152%
2051-24-3	Decachlorobiphenyl	88%		10-172%
2051-24-3	Decachlorobiphenyl	92%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-001.0-20210512		
Lab Sample ID:	FA85512-16	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107187.D	1	05/28/21 22:49	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	44	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		24-152%
877-09-8	Tetrachloro-m-xylene	85%		24-152%
2051-24-3	Decachlorobiphenyl	97%		10-172%
2051-24-3	Decachlorobiphenyl	103%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-002.0-20210512		
Lab Sample ID:	FA85512-17	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107188.D	1	05/28/21 23:21	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	115%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-003.0-20210512		
Lab Sample ID:	FA85512-18	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107189.D	1	05/28/21 23:54	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	98%		24-152%
2051-24-3	Decachlorobiphenyl	117%		10-172%
2051-24-3	Decachlorobiphenyl	122%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-000.5-20210512		
Lab Sample ID:	FA85512-19	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107190.D	1	05/29/21 00:26	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	52	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		24-152%
877-09-8	Tetrachloro-m-xylene	101%		24-152%
2051-24-3	Decachlorobiphenyl	123%		10-172%
2051-24-3	Decachlorobiphenyl	131%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-001.0-20210512		
Lab Sample ID:	FA85512-20	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107191.D	1	05/29/21 00:58	ANJ	05/18/21 17:00	N:OP33360	N:G5G2686
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016 [b]	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		24-152%
877-09-8	Tetrachloro-m-xylene	73%		24-152%
2051-24-3	Decachlorobiphenyl	86%		10-172%
2051-24-3	Decachlorobiphenyl	91%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) This compound is outside the DOD limits in the associated BS biased high.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-002.0-20210512		
Lab Sample ID:	FA85512-21	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466444.D	1	06/08/21 03:34	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	31 U	39	31	18	ug/kg	
11104-28-2	Aroclor 1221	31 U	39	31	24	ug/kg	
11141-16-5	Aroclor 1232	31 U	39	31	25	ug/kg	
53469-21-9	Aroclor 1242	31 U	39	31	16	ug/kg	
12672-29-6	Aroclor 1248	36 U	39	36	34	ug/kg	
11097-69-1	Aroclor 1254	31 U	39	31	21	ug/kg	
11096-82-5	Aroclor 1260	31 U	39	31	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	122%		24-152%
877-09-8	Tetrachloro-m-xylene	119%		24-152%
2051-24-3	Decachlorobiphenyl	129%		10-172%
2051-24-3	Decachlorobiphenyl	134%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-003.0-20210512		
Lab Sample ID:	FA85512-22	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466447.D	1	06/08/21 04:26	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	16.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	38	30	18	ug/kg	
11104-28-2	Aroclor 1221	30 U	38	30	24	ug/kg	
11141-16-5	Aroclor 1232	30 U	38	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	38	30	16	ug/kg	
12672-29-6	Aroclor 1248	36 U	38	36	34	ug/kg	
11097-69-1	Aroclor 1254	30 U	38	30	21	ug/kg	
11096-82-5	Aroclor 1260	30 U	38	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	113%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0328-000.5-20210512		
Lab Sample ID:	FA85512-23	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466448.D	1	06/08/21 04:43	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	41	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	41	33	26	ug/kg	
11141-16-5	Aroclor 1232	33 U	41	33	26	ug/kg	
53469-21-9	Aroclor 1242	33 U	41	33	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	41	39	37	ug/kg	
11097-69-1	Aroclor 1254	33 U	41	33	22	ug/kg	
11096-82-5	Aroclor 1260	42.2	41	33	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		24-152%
877-09-8	Tetrachloro-m-xylene	75%		24-152%
2051-24-3	Decachlorobiphenyl	77%		10-172%
2051-24-3	Decachlorobiphenyl	88%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0328-001.0-20210512
Lab Sample ID: FA85512-24
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 05/12/21
Date Received: 05/13/21
Percent Solids: 81.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466453.D	1	06/08/21 06:09	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	26	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	22	ug/kg	
11096-82-5	Aroclor 1260	21.1	40	32	17	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	100%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	118%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0328-002.0-20210512		
Lab Sample ID:	FA85512-25	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466454.D	1	06/08/21 06:26	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	28 U	35	28	16	ug/kg	
11104-28-2	Aroclor 1221	28 U	35	28	22	ug/kg	
11141-16-5	Aroclor 1232	28 U	35	28	23	ug/kg	
53469-21-9	Aroclor 1242	28 U	35	28	15	ug/kg	
12672-29-6	Aroclor 1248	33 U	35	33	32	ug/kg	
11097-69-1	Aroclor 1254	28 U	35	28	19	ug/kg	
11096-82-5	Aroclor 1260	28 U	35	28	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	95%		24-152%
2051-24-3	Decachlorobiphenyl	91%		10-172%
2051-24-3	Decachlorobiphenyl	107%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0328-003.0-20210512		
Lab Sample ID:	FA85512-26	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466455.D	1	06/08/21 06:43	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	41	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	41	33	25	ug/kg	
11141-16-5	Aroclor 1232	33 U	41	33	26	ug/kg	
53469-21-9	Aroclor 1242	33 U	41	33	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	41	39	37	ug/kg	
11097-69-1	Aroclor 1254	33 U	41	33	22	ug/kg	
11096-82-5	Aroclor 1260	33 U	41	33	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	266% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	273% [b]		24-152%
2051-24-3	Decachlorobiphenyl	291% [b]		10-172%
2051-24-3	Decachlorobiphenyl	343% [b]		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) High percent recoveries and no positive found in the sample.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0329-000.5-20210512		
Lab Sample ID:	FA85512-27	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466456.D	1	06/08/21 07:00	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	31 U	38	31	18	ug/kg	
11104-28-2	Aroclor 1221	31 U	38	31	24	ug/kg	
11141-16-5	Aroclor 1232	31 U	38	31	24	ug/kg	
53469-21-9	Aroclor 1242	31 U	38	31	16	ug/kg	
12672-29-6	Aroclor 1248	36 U	38	36	34	ug/kg	
11097-69-1	Aroclor 1254	31 U	38	31	21	ug/kg	
11096-82-5	Aroclor 1260	31 U	38	31	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		24-152%
877-09-8	Tetrachloro-m-xylene	113%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	129%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0329-001.0-20210512		
Lab Sample ID:	FA85512-28	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	71.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466457.D	1	06/08/21 07:17	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	36 U	45	36	21	ug/kg	
11104-28-2	Aroclor 1221	36 U	45	36	28	ug/kg	
11141-16-5	Aroclor 1232	36 U	45	36	28	ug/kg	
53469-21-9	Aroclor 1242	36 U	45	36	18	ug/kg	
12672-29-6	Aroclor 1248	42 U	45	42	40	ug/kg	
11097-69-1	Aroclor 1254	36 U	45	36	24	ug/kg	
11096-82-5	Aroclor 1260	54.7	45	36	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	74%		24-152%
2051-24-3	Decachlorobiphenyl	83%		10-172%
2051-24-3	Decachlorobiphenyl	110%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0329-002.0-20210512		
Lab Sample ID:	FA85512-29	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466458.D	1	06/08/21 07:35	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	18	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	25	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	37 U	40	37	35	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	21	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	150% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	153% [c]		24-152%
2051-24-3	Decachlorobiphenyl	157%		10-172%
2051-24-3	Decachlorobiphenyl	182% [c]		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements bias high and no positive found in the sample.
(c) High percent recoveries and no positive found in the sample.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0329-003.0-20210512		
Lab Sample ID:	FA85512-30	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466459.D	1	06/08/21 07:52	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	38	30	18	ug/kg	
11104-28-2	Aroclor 1221	30 U	38	30	23	ug/kg	
11141-16-5	Aroclor 1232	30 U	38	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	38	30	15	ug/kg	
12672-29-6	Aroclor 1248	36 U	38	36	34	ug/kg	
11097-69-1	Aroclor 1254	30 U	38	30	20	ug/kg	
11096-82-5	Aroclor 1260	30 U	38	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	102%		24-152%
2051-24-3	Decachlorobiphenyl	98%		10-172%
2051-24-3	Decachlorobiphenyl	115%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0330-000.5-20210512
Lab Sample ID: FA85512-31
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 05/12/21
Date Received: 05/13/21
Percent Solids: 82.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466464.D	1	06/08/21 09:17	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	25	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	37 U	40	37	36	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	21	ug/kg	
11096-82-5	Aroclor 1260	36.4	40	32	17	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	116%		24-152%
877-09-8	Tetrachloro-m-xylene	121%		24-152%
2051-24-3	Decachlorobiphenyl	130%		10-172%
2051-24-3	Decachlorobiphenyl	138%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0330-001.0-20210512		
Lab Sample ID:	FA85512-32	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466465.D	1	06/08/21 09:34	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	31 U	38	31	18	ug/kg	
11104-28-2	Aroclor 1221	31 U	38	31	24	ug/kg	
11141-16-5	Aroclor 1232	31 U	38	31	25	ug/kg	
53469-21-9	Aroclor 1242	31 U	38	31	16	ug/kg	
12672-29-6	Aroclor 1248	36 U	38	36	34	ug/kg	
11097-69-1	Aroclor 1254	31 U	38	31	21	ug/kg	
11096-82-5	Aroclor 1260	31 U	38	31	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	85%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	101%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0330-002.0-20210512		
Lab Sample ID:	FA85512-33	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466466.D	1	06/08/21 09:52	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	38	30	18	ug/kg	
11104-28-2	Aroclor 1221	30 U	38	30	23	ug/kg	
11141-16-5	Aroclor 1232	30 U	38	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	38	30	15	ug/kg	
12672-29-6	Aroclor 1248	35 U	38	35	34	ug/kg	
11097-69-1	Aroclor 1254	30 U	38	30	20	ug/kg	
11096-82-5	Aroclor 1260	30 U	38	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	104%		10-172%
2051-24-3	Decachlorobiphenyl	116%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0330-003.0-20210512		
Lab Sample ID:	FA85512-34	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466467.D	1	06/08/21 10:09	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	37	30	17	ug/kg	
11104-28-2	Aroclor 1221	30 U	37	30	23	ug/kg	
11141-16-5	Aroclor 1232	30 U	37	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	37	30	15	ug/kg	
12672-29-6	Aroclor 1248	35 U	37	35	33	ug/kg	
11097-69-1	Aroclor 1254	30 U	37	30	20	ug/kg	
11096-82-5	Aroclor 1260	30 U	37	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	103%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0331-000.5-20210512		
Lab Sample ID:	FA85512-35	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466468.D	1	06/08/21 10:26	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	34 U	43	34	20	ug/kg	
11104-28-2	Aroclor 1221	34 U	43	34	27	ug/kg	
11141-16-5	Aroclor 1232	34 U	43	34	27	ug/kg	
53469-21-9	Aroclor 1242	34 U	43	34	18	ug/kg	
12672-29-6	Aroclor 1248	40 U	43	40	38	ug/kg	
11097-69-1	Aroclor 1254	34 U	43	34	23	ug/kg	
11096-82-5	Aroclor 1260	44.6	43	34	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	94%		10-172%
2051-24-3	Decachlorobiphenyl	112%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0331-001.0-20210512
Lab Sample ID: FA85512-36
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 05/12/21
Date Received: 05/13/21
Percent Solids: 76.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466469.D	1	06/08/21 10:43	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	34 U	42	34	20	ug/kg	
11104-28-2	Aroclor 1221	34 U	42	34	26	ug/kg	
11141-16-5	Aroclor 1232	34 U	42	34	27	ug/kg	
53469-21-9	Aroclor 1242	34 U	42	34	17	ug/kg	
12672-29-6	Aroclor 1248	40 U	42	40	38	ug/kg	
11097-69-1	Aroclor 1254	34 U	42	34	23	ug/kg	
11096-82-5	Aroclor 1260	34 U	42	34	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	95%		24-152%
2051-24-3	Decachlorobiphenyl	103%		10-172%
2051-24-3	Decachlorobiphenyl	117%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0331-002.0-20210512		
Lab Sample ID:	FA85512-37	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466470.D	1	06/08/21 11:00	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	38	30	18	ug/kg	
11104-28-2	Aroclor 1221	30 U	38	30	24	ug/kg	
11141-16-5	Aroclor 1232	30 U	38	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	38	30	16	ug/kg	
12672-29-6	Aroclor 1248	36 U	38	36	34	ug/kg	
11097-69-1	Aroclor 1254	30 U	38	30	20	ug/kg	
11096-82-5	Aroclor 1260	30 U	38	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	100%		10-172%
2051-24-3	Decachlorobiphenyl	113%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0331-003.0-20210512		
Lab Sample ID:	FA85512-38	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2466475.D	1	06/08/21 12:26	ANJ	05/25/21 16:00	N:OP33361	N:GXX7459
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	30 U	38	30	18	ug/kg	
11104-28-2	Aroclor 1221	30 U	38	30	23	ug/kg	
11141-16-5	Aroclor 1232	30 U	38	30	24	ug/kg	
53469-21-9	Aroclor 1242	30 U	38	30	15	ug/kg	
12672-29-6	Aroclor 1248	35 U	38	35	34	ug/kg	
11097-69-1	Aroclor 1254	30 U	38	30	20	ug/kg	
11096-82-5	Aroclor 1260	30 U	38	30	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		24-152%
877-09-8	Tetrachloro-m-xylene	112%		24-152%
2051-24-3	Decachlorobiphenyl	130%		10-172%
2051-24-3	Decachlorobiphenyl	139%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0332-000.5-20210512		
Lab Sample ID:	FA85512-39	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107705.D	1	06/10/21 09:26	ANJ	05/25/21 16:00	N:OP33361	N:G5G2698
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	41	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	41	33	26	ug/kg	
11141-16-5	Aroclor 1232	33 U	41	33	26	ug/kg	
53469-21-9	Aroclor 1242	33 U	41	33	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	41	39	37	ug/kg	
11097-69-1	Aroclor 1254	253	41	33	22	ug/kg	
11096-82-5	Aroclor 1260	117	41	33	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	113%		24-152%
877-09-8	Tetrachloro-m-xylene	111%		24-152%
2051-24-3	Decachlorobiphenyl	118%		10-172%
2051-24-3	Decachlorobiphenyl	125%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0332-001.0-20210512		
Lab Sample ID:	FA85512-40	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107706.D	1	06/10/21 10:00	ANJ	05/25/21 16:00	N:OP33361	N:G5G2698
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	18	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	25	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	37 U	40	37	35	ug/kg	
11097-69-1	Aroclor 1254	383	40	32	21	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	101%		10-172%
2051-24-3	Decachlorobiphenyl	116%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0332-002.0-20210512		
Lab Sample ID:	FA85512-41	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107658.D	1	06/09/21 06:13	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	98%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	103%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0332-003.0-20210512		
Lab Sample ID:	FA85512-42	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107666.D	1	06/09/21 10:42	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	85%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	89%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0333-000.5-20210512		
Lab Sample ID:	FA85512-43	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107667.D	1	06/09/21 11:16	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	48	ug/kg	
11097-69-1	Aroclor 1254	160	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		24-152%
877-09-8	Tetrachloro-m-xylene	97%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	109%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0333-001.0-20210512		
Lab Sample ID:	FA85512-44	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107668.D	1	06/09/21 11:49	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2 [a]	5G107712.D	5	06/10/21 13:22	ANJ	05/26/21 17:20	N:OP33362	N:G5G2698

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2	10.9 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	3480 [b]	280	230	150	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%	107%	24-152%
877-09-8	Tetrachloro-m-xylene	84%	106%	24-152%
2051-24-3	Decachlorobiphenyl	127%	157%	10-172%
2051-24-3	Decachlorobiphenyl	89%	125%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0333-002.0-20210512		
Lab Sample ID:	FA85512-45	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107669.D	1	06/09/21 12:23	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	48.5	52	41	28	ug/kg	J
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	90%		24-152%
2051-24-3	Decachlorobiphenyl	96%		10-172%
2051-24-3	Decachlorobiphenyl	224% [b]		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0333-003.0-20210512		
Lab Sample ID:	FA85512-46	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107670.D	1	06/09/21 12:57	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	49 U	53	49	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54%		24-152%
877-09-8	Tetrachloro-m-xylene	60%		24-152%
2051-24-3	Decachlorobiphenyl	195% [b]		10-172%
2051-24-3	Decachlorobiphenyl	65%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0334-000.5-20210512		
Lab Sample ID:	FA85512-47	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107700.D	1	06/10/21 06:38	ANJ	05/26/21 17:20	N:OP33362	N:G5G2698
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	54	50	48	ug/kg	
11097-69-1	Aroclor 1254	289	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	110%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0334-001.0-20210512		
Lab Sample ID:	FA85512-48	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107677.D	1	06/09/21 16:51	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2 [a]	5G107713.D	5	06/10/21 13:56	ANJ	05/26/21 17:20	N:OP33362	N:G5G2698

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2	10.8 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	1470 [b]	260	210	140	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%	101%	24-152%
877-09-8	Tetrachloro-m-xylene	83%	101%	24-152%
2051-24-3	Decachlorobiphenyl	132%	154%	10-172%
2051-24-3	Decachlorobiphenyl	127%	187% [c]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0334-002.0-20210512		
Lab Sample ID:	FA85512-49	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107678.D	1	06/09/21 17:25	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	589	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	211% [b]		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0334-003.0-20210512		
Lab Sample ID:	FA85512-50	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107679.D	1	06/09/21 17:58	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	54.7	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	87%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0335-000.5-20210512		
Lab Sample ID:	FA85512-51	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107680.D	1	06/09/21 18:32	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	508	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	95%		10-172%
2051-24-3	Decachlorobiphenyl	90%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0335-001.0-20210512		
Lab Sample ID:	FA85512-52	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107681.D	1	06/09/21 19:05	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2 [a]	5G107714.D	10	06/10/21 14:29	ANJ	05/26/21 17:20	N:OP33362	N:G5G2698

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2	10.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	5450 [b]	530	420	280	ug/kg	
11096-82-5	Aroclor 1260	42 U	53	42	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%	136%	24-152%
877-09-8	Tetrachloro-m-xylene	91%	130%	24-152%
2051-24-3	Decachlorobiphenyl	134%	185% [c]	10-172%
2051-24-3	Decachlorobiphenyl	97%	179% [c]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0335-002.0-20210512		
Lab Sample ID:	FA85512-53	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107701.D	1	06/10/21 07:12	ANJ	05/26/21 17:20	N:OP33362	N:G5G2698
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	417	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	97%		10-172%
2051-24-3	Decachlorobiphenyl	103%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0335-003.0-20210512		
Lab Sample ID:	FA85512-54	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107683.D	1	06/09/21 20:13	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	90%		24-152%
2051-24-3	Decachlorobiphenyl	88%		10-172%
2051-24-3	Decachlorobiphenyl	79%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0336-000.5-20210512		
Lab Sample ID:	FA85512-55	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	98.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107689.D	1	06/10/21 00:29	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	203	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	50%		24-152%
877-09-8	Tetrachloro-m-xylene	54%		24-152%
2051-24-3	Decachlorobiphenyl	53%		10-172%
2051-24-3	Decachlorobiphenyl	62%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0336-001.0-20210512		
Lab Sample ID:	FA85512-56	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	97.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107690.D	1	06/10/21 01:02	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	145	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	101%		10-172%
2051-24-3	Decachlorobiphenyl	128%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0336-002.0-20210512		
Lab Sample ID:	FA85512-57	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107691.D	1	06/10/21 01:36	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	44	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	81%		10-172%
2051-24-3	Decachlorobiphenyl	97%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0336-003.0-20210512		
Lab Sample ID:	FA85512-58	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107692.D	1	06/10/21 02:10	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	91%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	94%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0337-000.5-20210512		
Lab Sample ID:	FA85512-59	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	96.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107693.D	1	06/10/21 02:43	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	49	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	49	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	49	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	49	40	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	309	49	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	49	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	97%		10-172%
2051-24-3	Decachlorobiphenyl	97%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0337-001.0-20210512		
Lab Sample ID:	FA85512-60	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	95.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107694.D	1	06/10/21 03:17	ANJ	05/26/21 17:20	N:OP33362	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	47	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	47	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	47	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	47	38	19	ug/kg	
12672-29-6	Aroclor 1248	44 U	47	44	42	ug/kg	
11097-69-1	Aroclor 1254	200	47	38	25	ug/kg	
11096-82-5	Aroclor 1260	38 U	47	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-152%
877-09-8	Tetrachloro-m-xylene	84%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	96%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0337-002.0-20210512		
Lab Sample ID:	FA85512-61	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107641.D	1	06/08/21 20:45	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	24	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	872	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-152%
877-09-8	Tetrachloro-m-xylene	89%		24-152%
2051-24-3	Decachlorobiphenyl	95%		10-172%
2051-24-3	Decachlorobiphenyl	104%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0337-003.0-20210512		
Lab Sample ID:	FA85512-62	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107642.D	1	06/08/21 21:19	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	228	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	85%		10-172%
2051-24-3	Decachlorobiphenyl	140%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0337-004.0-20210512		
Lab Sample ID:	FA85512-63	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107643.D	1	06/08/21 21:52	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	54.2	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	95%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	89%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0338-000.5-20210512		
Lab Sample ID:	FA85512-64	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	95.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107644.D	1	06/08/21 22:26	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	31.0	52	41	28	ug/kg	J
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		24-152%
877-09-8	Tetrachloro-m-xylene	101%		24-152%
2051-24-3	Decachlorobiphenyl	107%		10-172%
2051-24-3	Decachlorobiphenyl	107%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0338-001.0-20210512		
Lab Sample ID:	FA85512-65	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107645.D	1	06/08/21 22:58	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	48	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	48	38	30	ug/kg	
11141-16-5	Aroclor 1232	38 U	48	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	48	38	20	ug/kg	
12672-29-6	Aroclor 1248	45 U	48	45	42	ug/kg	
11097-69-1	Aroclor 1254	231	48	38	26	ug/kg	
11096-82-5	Aroclor 1260	38 U	48	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	91%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0338-002.0-20210512		
Lab Sample ID:	FA85512-66	**Date Sampled:**	05/12/21
Matrix:	SO - Soil	**Date Received:**	05/13/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107646.D	1	06/08/21 23:32	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	96.8	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		24-152%
877-09-8	Tetrachloro-m-xylene	109%		24-152%
2051-24-3	Decachlorobiphenyl	116%		10-172%
2051-24-3	Decachlorobiphenyl	115%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0338-003.0-20210512
Lab Sample ID: FA85512-67
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 05/12/21
Date Received: 05/13/21
Percent Solids: 93.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G107647.D	1	06/09/21 00:05	ANJ	05/27/21 16:00	N:OP33363	N:G5G2697
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	51	40	24	ug/kg	
11104-28-2	Aroclor 1221	40 U	51	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	51	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	51	40	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	1580	51	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	51	40	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	96%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA85512

SGS North America Inc - Orlando

Chain of Custody

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SGS - ORLANDO JOB # : PAGE 1 OF 2 6

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merrit Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0321-001.0-20210512	5/12/21	0900	HF	SO	1										X	
2	SAEE-SB0321-002.0-20210512	5/12/21	0901	HF	SO	1										X	
3	SAEE-SB0321-003.0-20210512	5/12/21	0902	HF	SO	1										X	
4	SAEE-SB0322-001.0-20210512	5/12/21	0905	HF	SO	1										X	
5	SAEE-SB0322-002.0-20210512	5/12/21	0906	HF	SO	1										X	
6	SAEE-SB0322-003.0-20210512	5/12/21	0907	HF	SO	1										X	
7	SAEE-SB0323-001.0-20210512	5/12/21	0919	HF	SO	1										X	
8	SAEE-SB0323-002.0-20210512	5/12/21	0920	HF	SO	1										X	
9	SAEE-SB0323-003.0-20210512	5/12/21	0921	HF	SO	1										X	
10	SAEE-SB0324-001.0-20210512	5/12/21	0929	HF	SO	1										X	
11	SAEE-SB0324-002.0-20210512	5/12/21	0930	HF	SO	1										X	
12	SAEE-SB0324-003.0-20210512	5/12/21	0931	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☐ FULLT1 (EPA LEVEL 4)
☐ EDD'S

INITIAL ASSESSMENT
LABEL VERIFICATION CM

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		5-12-21 15:35	2	3		4
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 18.4°C IR-4

COC PRL-227 5-12-21 Soil Rev 031318

http://www.sgs.com/en/terms-and-conditions

5.1 5

FA85512: Chain of Custody
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Chain of Custody

SGS - ORLANDO JOB # : PAGE 2 OF 26

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SGS - ORLANDO Quote # SKIFF #

Client / Reporting Information		Project Information		Analytical Information	Matrix Codes
Company Name: HGL, Inc.		Project Name: PRL 227, LOC 3 Confirmatory Sampling			DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid
Address: 2405 N. Courtney Parkway, STE 203		Street Kennedy Space Center			
City: Merrit Island	State: FL Zip:32937	City Merritt Island	State FL		
Project Contact: Denise Rivers	Email:drivers@hgl.com	Project # NS1005.07.07			
Phone #:910-233-8460		Fax #			
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Jason Bublitz		Client Purchase Order #			

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NACH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
13	SAEE-SB0325-001.0-20210512	5/12/21	0941	HF	SO	1										X	
14	SAEE-SB0325-002.0-20210512	5/12/21	0942	HF	SO	1										X	
15	SAEE-SB0325-003.0-20210512	5/12/21	0943	HF	SO	1										X	
16	SAEE-SB0326-001.0-20210512	5/12/21	0948	HF	SO	1										X	
17	SAEE-SB0326-002.0-20210512	5/12/21	0949	HF	SO	1										X	
18	SAEE-SB0326-003.0-20210512	5/12/21	0950	HF	SO	1										X	
19	SAEE-SB0327-000.5-20210512	5/12/21	0957	HF	SO	1										X	
20	SAEE-SB0327-001.0-20210512	5/12/21	0958	HF	SO	1										X	
21	SAEE-SB0327-002.0-20210512	5/12/21	0959	HF	SO	1										X	
22	SAEE-SB0327-003.0-20210512	5/12/21	1000	HF	SO	1										X	
23	SAEE-SB0328-000.5-20210512	5/12/21	1014	HF	SO	1										X	
24	SAEE-SB0328-001.0-20210512	5/12/21	1015	HF	SO	1										X	

Turnaround Time (Business days)		Data Deliverable Information	Comments / Remarks
X 10 Day (Business)	Approved By: / Date:	☐ COMMERCIAL "A" (RESULTS ONLY)	
7 Day		☐ COMMERCIAL "B" (RESULTS PLUS QC)	
5 Day		☐ REDT1 (EPA LEVEL 3)	
3 Day *RUSH*		☐ FULLT1 (EPA LEVEL 4)	
2 Day *RUSH*		☐ EDD'S	
1 Day *RUSH*			
Other			
Rush T/A Data Available VIA Email or Lablink			

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	5-12-21 1535	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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COC PRL-227 5-12-21 Soil Rev 031318

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Chain of Custody

FA85512

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information		Project Information		Analytical Information	Matrix Codes
Company Name: HGL, Inc.		Project Name: PRL 227, LOC 3 Confirmatory Sampling			DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid
Address: 2405 N. Courtney Parkway, STE 203		Street Kennedy Space Center			
City: Merrit Island	State: FL Zip:32937	City Merritt Island	State FL		
Project Contact: Denise Rivers	Email:drivers@hgl.com	Project # NS1005.07.07			
Phone #:910-233-8460		Fax #			
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Jason Bublitz		Client Purchase Order #			

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0328-002.0-20210512	5/12/21	1016	HF	SO	1										X	
26	SAEE-SB0328-003.0-20210512	5/12/21	1017	HF	SO	1										X	
27	SAEE-SB0329-000.5-20210512	5/12/21	1030	HF	SO	1										X	
28	SAEE-SB0329-001.0-20210512	5/12/21	1031	HF	SO	1										X	
29	SAEE-SB0329-002.0-20210512	5/12/21	1032	HF	SO	1										X	
30	SAEE-SB0329-003.0-20210512	5/12/21	1033	HF	SO	1										X	
31	SAEE-SB0330-000.5-20210512	5/12/21	1041	HF	SO	1										X	
32	SAEE-SB0330-001.0-20210512	5/12/21	1042	HF	SO	1										X	
33	SAEE-SB0330-002.0-20210512	5/12/21	1043	HF	SO	1										X	
34	SAEE-SB0330-003.0-20210512	5/12/21	1044	HF	SO	1										X	
35	SAEE-SB0331-000.5-20210512	5/12/21	1051	HF	SO	1										X	
36	SAEE-SB0331-001.0-20210512	5/12/21	1052	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	HGL	5-12-21 15:05	2	3		4
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5			6	7		8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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SGS - ORLANDO JOB # : PAGE 4 OF 6

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
37	SAEE-SB0331-002.0-20210512	5/12/21	1053	HF	SO	1										X	
38	SAEE-SB0331-003.0-20210512	5/12/21	1054	HF	SO	1										X	
39	SAEE-SB0332-000.5-20210512	5/12/21	1104	HF	SO	1										X	
40	SAEE-SB0332-001.0-20210512	5/12/21	1105	HF	SO	1										X	
41	SAEE-SB0332-002.0-20210512	5/12/21	1106	HF	SO	1										X	
42	SAEE-SB0332-003.0-20210512	5/12/21	1107	HF	SO	1										X	
43	SAEE-SB0333-000.5-20210512	5/12/21	1134	HF	SO	1										X	
44	SAEE-SB0333-001.0-20210512	5/12/21	1135	HF	SO	1										X	
45	SAEE-SB0333-002.0-20210512	5/12/21	1136	HF	SO	1										X	
46	SAEE-SB0333-003.0-20210512	5/12/21	1137	HF	SO	1										X	
47	SAEE-SB0334-000.5-20210512	5/12/21	1143	HF	SO	1										X	
48	SAEE-SB0334-001.0-20210512	5/12/21	1144	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	5-12-21 15:05	2	5/17/21 1505 3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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Chain of Custody

FA85512

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information
Company Name: HGL, Inc.	Project Name: PRL 227, LOC 3 Confirmatory Sampling
Address: 2405 N. Courtney Parkway, STE 203	Street Kennedy Space Center
City: Merrit Island State: FL Zip:32937	City Merritt Island State FL
Project Contact: Denise Rivers Email:drivers@hgl.com	Project # NS1005.07.07
Phone #:910-233-8460	Fax #
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Jason Bubiltz	Client Purchase Order #

Analytical Information: P8082SOXHLETPCB SOL-104

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	P8082SOXHLETPCB SOL-104	LAB USE ONLY
49	SAEE-SB0334-002.0-20210512	5/12/21	1145	HF	SO	1										X	
50	SAEE-SB0334-003.0-20210512	5/12/21	1146	HF	SO	1										X	
51	SAEE-SB0335-000.5-20210512	5/12/21	1152	HF	SO	1										X	
52	SAEE-SB0335-001.0-20210512	5/12/21	1153	HF	SO	1										X	
53	SAEE-SB0335-002.0-20210512	5/12/21	1154	HF	SO	1										X	
54	SAEE-SB0335-003.0-20210512	5/12/21	1155	HF	SO	1										X	
55	SAEE-SB0336-000.5-20210512	5/12/21	1203	HF	SO	1										X	
56	SAEE-SB0336-001.0-20210512	5/12/21	1204	HF	SO	1										X	
57	SAEE-SB0336-002.0-20210512	5/12/21	1205	HF	SO	1										X	
58	SAEE-SB0336-003.0-20210512	5/12/21	1206	HF	SO	1										X	
59	SAEE-SB0337-000.5-20210512	5/12/21	1226	HF	SO	1										X	
60	SAEE-SB0337-001.0-20210512	5/12/21	1227	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	5-12-21 15:05	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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COC PRL-227 5-12-21 Soil Rev 031318

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Chain of Custody

FA85512

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information	Analytical Information	Matrix Codes
Company Name: HGL, Inc.	Project Name: PRL 227, LOC 3 Confirmatory Sampling	P8082SOXHLETPCB SOL104	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid
Address: 2405 N. Courtney Parkway, STE 203	Street Kennedy Space Center		
City: Merrit Island State: FL Zip:32937	City Merrit Island State FL		
Project Contact: Denise Rivers Email:drivers@hgl.com	Project # NS1005.07.07		
Phone #:910-233-8460	Fax #		
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Jason Bublitz	Client Purchase Order #		

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
b1	SAEE-SB0337-002.0-20210512	5/12/21	1228	HF	SO	1										X	
b2	SAEE-SB0337-003.0-20210512	5/12/21	1229	HF	SO	1										X	
b3	SAEE-SB0337-004.0-20210512	5/12/21	1230	HF	SO	1										X	
b4	SAEE-SB0338-000.5-20210512	5/12/21	1251	HF	SO	1										X	
b5	SAEE-SB0338-001.0-20210512	5/12/21	1252	HF	SO	1										X	
b6	SAEE-SB0338-002.0-20210512	5/12/21	1253	HF	SO	1										X	
b7	SAEE-SB0338-003.0-20210512	5/12/21	1254	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	5/12/21 15:00	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):_____

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COC PRL-227 5-12-21 Soil Rev 031318

5/12/21 1505

SGS Sample Receipt Summary

Job Number: FA85512 **Client:** HGL.INC. **Project:** PRL 227

Date / Time Received: 5/13/2021 3:05:00 PM **Delivery Method:** D/O **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** -1.8; **# of Coolers:** 2

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6); Cooler 2: (6.0);

Cooler Temps (Corrected) °C: Cooler 1: (1.8); Cooler 2: (4.2);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 5/13/2021 3:05:00 PM Reviewer: _____ Date: _____

FA85512: Chain of Custody
Page 7 of 7

QC Evaluation: DOD QSM5.x Limits

Job Number: FA85512
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 05/12/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA85512

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SO

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 5069 4507 5270
Bottle Order Control # JS-05521-162
SGS Quote #
SGS Job # FA85512

Client / Reporting Information	Project Information
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL
Street Address: 4405 Vineland Rd, Suite C-15	Street
City: Orlando State: FL Zip: 32811	City State
Project Contact: jean.dent-smith@sgs.com E-mail	Project #
Phone #: 407-425-6700 Fax #	Client Purchase Order #
Sampler(s) Name(s): HFJB Phone	Project Manager

Billing Information (if different from Report to)
Company Name
Street Address
City State Zip
Attention

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
1	SAEE-SB0321-001.0-20210512		5/12/21	9:00:00 AM	HFJB	SO	1					1				X	
2	SAEE-SB0321-002.0-20210512		5/12/21	9:01:00 AM	HFJB	SO	1					1				X	
3	SAEE-SB0321-003.0-20210512		5/12/21	9:02:00 AM	HFJB	SO	1					1				X	
4	SAEE-SB0322-001.0-20210512		5/12/21	9:05:00 AM	HFJB	SO	1					1				X	
5	SAEE-SB0322-002.0-20210512		5/12/21	9:06:00 AM	HFJB	SO	1					1				X	
6	SAEE-SB0322-003.0-20210512		5/12/21	9:07:00 AM	HFJB	SO	1					1				X	
7	SAEE-SB0323-001.0-20210512		5/12/21	9:19:00 AM	HFJB	SO	1					1				X	
8	SAEE-SB0323-002.0-20210512		5/12/21	9:20:00 AM	HFJB	SO	1					1				X	
9	SAEE-SB0323-003.0-20210512		5/12/21	9:21:00 AM	HFJB	SO	1					1				X	
10	SAEE-SB0324-001.0-20210512		5/12/21	9:29:00 AM	HFJB	SO	1					1				X	
11	SAEE-SB0324-002.0-20210512		5/12/21	9:30:00 AM	HFJB	SO	1					1				X	
12	SAEE-SB0324-003.0-20210512		5/12/21	9:31:00 AM	HFJB	SO	1					1				X	

CFR

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 5/14/21	Received By: 1	Relinquished By: 2	Date Time: 5/15/21 0950	Received By: 2
Relinquished by Sampler: 3	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☑ Cooler Temp: 2.9°C IR Gun-4

J.1

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA85512

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs: KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Company Name
City: Orlando State: FL Zip: 32811	City State	Street Address
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	City State Zip
Phone #: 407-425-6700 Fax #	Client Purchase Order #	Attention:
Sampler(s) Name(s): HFJB Phone	Project Manager	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
13	SAEE-SB0325-001.0-20210512		5/12/21	9:41:00 AM	HFJB	SO	1					1				X	
14	SAEE-SB0325-002.0-20210512		5/12/21	9:42:00 AM	HFJB	SO	1					1				X	
15	SAEE-SB0325-003.0-20210512		5/12/21	9:43:00 AM	HFJB	SO	1					1				X	
16	SAEE-SB0326-001.0-20210512		5/12/21	9:48:00 AM	HFJB	SO	1					1				X	
17	SAEE-SB0326-002.0-20210512		5/12/21	9:49:00 AM	HFJB	SO	1					1				X	
18	SAEE-SB0326-003.0-20210512		5/12/21	9:50:00 AM	HFJB	SO	1					1				X	
19	SAEE-SB0327-000.5-20210512		5/12/21	9:57:00 AM	HFJB	SO	1					1				X	
20	SAEE-SB0327-001.0-20210512		5/12/21	9:58:00 AM	HFJB	SO	1					1				X	
21	SAEE-SB0327-002.0-20210512		5/12/21	9:59:00 AM	HFJB	SO	1					1				X	
22	SAEE-SB0327-003.0-20210512		5/12/21	10:00:00 AM	HFJB	SO	1					1				X	
23	SAEE-SB0328-000.5-20210512		5/12/21	10:14:00 AM	HFJB	SO	1					1				X	
24	SAEE-SB0328-001.0-20210512		5/12/21	10:15:00 AM	HFJB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 5/14/21	Received By: 1	Relinquished By: 2	Date Time: 5/15/21 0950	Received By: 2
Relinquished by Sampler: 3	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐ Cooler Temp.

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: FA85512

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-16
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
25	SAEE-SB0328-002.0-20210612		5/12/21	10:16:00 AM	HFJB	SO	1					1				X	
26	SAEE-SB0328-003.0-20210612		5/12/21	10:17:00 AM	HFJB	SO	1					1				X	
27	SAEE-SB0329-000.5-20210512		5/12/21	10:30:00 AM	HFJB	SO	1					1				X	
28	SAEE-SB0329-001.0-20210512		5/12/21	10:31:00 AM	HFJB	SO	1					1				X	
29	SAEE-SB0329-002.0-20210512		5/12/21	10:32:00 AM	HFJB	SO	1					1				X	
30	SAEE-SB0329-003.0-20210512		5/12/21	10:33:00 AM	HFJB	SO	1					1				X	
31	SAEE-SB0330-000.5-20210512		5/12/21	10:41:00 AM	HFJB	SO	1					1				X	
32	SAEE-SB0330-001.0-20210512		5/12/21	10:42:00 AM	HFJB	SO	1					1				X	
33	SAEE-SB0330-002.0-20210512		5/12/21	10:43:00 AM	HFJB	SO	1					1				X	
34	SAEE-SB0330-003.0-20210512		5/12/21	10:44:00 AM	HFJB	SO	1					1				X	
35	SAEE-SB0331-000.5-20210512		5/12/21	10:51:00 AM	HFJB	SO	1					1				X	
36	SAEE-SB0331-001.0-20210512		5/12/21	10:52:00 AM	HFJB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1		5/14/21	1	2	5/15/21 0915	2
3	Relinquished by Sampler:	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID: / On Ice / Cooler Temp.

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # FA85512

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Billing Information (if different from Report to)	
City: Orlando State: FL Zip: 32811	City: State:	Company Name:	
Project Contact: jean.dent-smith@sgs.com E-mail:	Project #:	Street Address:	
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	City: State: Zip:	
Sampler(s) Name(s): HFJB Phone:	Project Manager:	Attention:	

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104_	LAB USE ONLY
37	SAEE-SB0331-002.0-20210512		5/12/21	10:53:00 AM	HFJB	SO	1					1				X	
38	SAEE-SB0331-003.0-20210512		5/12/21	10:54:00 AM	HFJB	SO	1					1				X	
39	SAEE-SB0332-000.5-20210512		5/12/21	11:04:00 AM	HFJB	SO	1					1				X	
40	SAEE-SB0332-001.0-20210512		5/12/21	11:05:00 AM	HFJB	SO	1					1				X	
41	SAEE-SB0332-002.0-20210512		5/12/21	11:06:00 AM	HFJB	SO	1					1				X	
42	SAEE-SB0332-003.0-20210512		5/12/21	11:07:00 AM	HFJB	SO	1					1				X	
43	SAEE-SB0333-000.5-20210512		5/12/21	11:34:00 AM	HFJB	SO	1					1				X	
44	SAEE-SB0333-001.0-20210512		5/12/21	11:35:00 AM	HFJB	SO	1					1				X	
45	SAEE-SB0333-002.0-20210512		5/12/21	11:36:00 AM	HFJB	SO	1					1				X	
46	SAEE-SB0333-003.0-20210512		5/12/21	11:37:00 AM	HFJB	SO	1					1				X	
47	SAEE-SB0334-000.5-20210512		5/12/21	11:43:00 AM	HFJB	SO	1					1				X	
48	SAEE-SB0334-001.0-20210512		5/12/21	11:44:00 AM	HFJB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/19/21	1	2	5/20/21 0530	2
3		1700	3	4		4
5			5			

Custody Seal # ☐ Intact ☐ Not intact — Preserved where applicable ☐ Therm. ID. — On Ice ☐ — Cooler Temp.

SGS

CHAIN OF CUSTODY

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TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # | Bottle Order Control #
SGS Quote # | SGS Job # FA85512

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City State Zip: Orlando FL 32811
Project Contact E-mail: jean.dent-smith@sgs.com
Phone # Fax #: 407-425-6700
Sampler(s) Name(s) Phone: HFJB

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street
City State
Project #
Client Purchase Order #
Project Manager

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

P8082SOXHLETPCB_SOL104

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
49	SAEE-SB0334-002.0-20210512		5/12/21	11:45:00 AM	HFJB	SO	1					1				X	
50	SAEE-SB0334-003.0-20210512		5/12/21	11:46:00 AM	HFJB	SO	1					1				X	
51	SAEE-SB0335-000.5-20210512		5/12/21	11:52:00 AM	HFJB	SO	1					1				X	
52	SAEE-SB0335-001.0-20210512		5/12/21	11:53:00 AM	HFJB	SO	1					1				X	
53	SAEE-SB0335-002.0-20210512		5/12/21	11:54:00 AM	HFJB	SO	1					1				X	
54	SAEE-SB0335-003.0-20210512		5/12/21	11:55:00 AM	HFJB	SO	1					1				X	
55	SAEE-SB0336-000.5-20210512		5/12/21	12:03:00 PM	HFJB	SO	1					1				X	
56	SAEE-SB0336-001.0-20210512		5/12/21	12:04:00 PM	HFJB	SO	1					1				X	
57	SAEE-SB0336-002.0-20210512		5/12/21	12:05:00 PM	HFJB	SO	1					1				X	
58	SAEE-SB0336-003.0-20210512		5/12/21	12:06:00 PM	HFJB	SO	1					1				X	
59	SAEE-SB0337-000.5-20210512		5/12/21	12:26:00 PM	HFJB	SO	1					1				X	
60	SAEE-SB0337-001.0-20210512		5/12/21	12:27:00 PM	HFJB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
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Commercial "A" = Results Only
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Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 5/14/21	Received By: 1	Relinquished By: 2	Date Time: 0950 5/14/21	Received By: 2
Relinquished by Sampler: 3	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ] Therm. ID: [ ] On Ice Cooler Temp.

CHAIN OF CUSTODY

SGS

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www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: SGS-NJ | SGS Job #:

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Billing Information (if different from Report to)
City: Orlando State: FL Zip: 32811	City State	Company Name
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	Street Address
Phone #: 407-425-6700 Fax #	Client Purchase Order #	City State Zip
Sampler(s) Name(s): HFJB Phone	Project Manager	Attention:

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
61	SAEE-SB0337-002.0-20210512		5/12/21	12:28:00 PM	HFJB	SO	1					1				X	
62	SAEE-SB0337-003.0-20210512		5/12/21	12:29:00 PM	HFJB	SO	1					1				X	
63	SAEE-SB0337-004.0-20210512		5/12/21	12:30:00 PM	HFJB	SO	1					1				X	
64	SAEE-SB0338-000.5-20210512		5/12/21	12:51:00 PM	HFJB	SO	1					1				X	
65	SAEE-SB0338-001.0-20210512		5/12/21	12:52:00 PM	HFJB	SO	1					1				X	
66	SAEE-SB0338-002.0-20210512		5/12/21	12:53:00 PM	HFJB	SO	1					1				X	
67	SAEE-SB0338-003.0-20210512		5/12/21	12:54:00 PM	HFJB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 5/27/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler 1	Date Time: 5/14/21	Received By: 1	Relinquished By: 2	Date Time: 5/15/21	Received By: 2
Relinquished by Sampler: 3	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not Intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐ Cooler Temp.

SGS Sample Receipt Summary

Job Number: FA85512 **Client:** _____ **Project:** _____

Date / Time Received: 5/15/2021 9:50:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9); Cooler 2: (3.1);

Cooler Temps (Corrected) °C: Cooler 1: (2.2); Cooler 2: (2.4);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

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

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

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

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

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33360-MB1	5G107155.D	1	05/28/21	RK	05/18/21	OP33360	G5G2686

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-1, FA85512-2, FA85512-3, FA85512-4, FA85512-6, FA85512-7, FA85512-8, FA85512-9, FA85512-10, FA85512-11, FA85512-12, FA85512-13, FA85512-14, FA85512-15, FA85512-16, FA85512-17, FA85512-18, FA85512-19, FA85512-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	108%	24-152%
877-09-8	Tetrachloro-m-xylene	107%	24-152%
2051-24-3	Decachlorobiphenyl	120%	10-172%
2051-24-3	Decachlorobiphenyl	123%	10-172%

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33361-MB1	XX2466442.D	1	06/08/21	TC	05/25/21	OP33361	GXX7459

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-21, FA85512-22, FA85512-23, FA85512-24, FA85512-25, FA85512-26, FA85512-27, FA85512-28, FA85512-29, FA85512-30, FA85512-31, FA85512-32, FA85512-33, FA85512-34, FA85512-35, FA85512-36, FA85512-37, FA85512-38, FA85512-39, FA85512-40

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	16	ug/kg	
11104-28-2	Aroclor 1221	ND	33	21	ug/kg	
11141-16-5	Aroclor 1232	ND	33	21	ug/kg	
53469-21-9	Aroclor 1242	ND	33	14	ug/kg	
12672-29-6	Aroclor 1248	ND	33	30	ug/kg	
11097-69-1	Aroclor 1254	ND	33	18	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	93%	24-152%
877-09-8	Tetrachloro-m-xylene	91%	24-152%
2051-24-3	Decachlorobiphenyl	88%	10-172%
2051-24-3	Decachlorobiphenyl	93%	10-172%

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33361-MB1	5G107704.D	1	06/10/21	RK	05/25/21	OP33361	G5G2698

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-21, FA85512-22, FA85512-23, FA85512-24, FA85512-25, FA85512-26, FA85512-27, FA85512-28, FA85512-29, FA85512-30, FA85512-31, FA85512-32, FA85512-33, FA85512-34, FA85512-35, FA85512-36, FA85512-37, FA85512-38, FA85512-39, FA85512-40

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	16	ug/kg	
11104-28-2	Aroclor 1221	ND	33	21	ug/kg	
11141-16-5	Aroclor 1232	ND	33	21	ug/kg	
53469-21-9	Aroclor 1242	ND	33	14	ug/kg	
12672-29-6	Aroclor 1248	ND	33	30	ug/kg	
11097-69-1	Aroclor 1254	ND	33	18	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	101%	24-152%
877-09-8	Tetrachloro-m-xylene	95%	24-152%
2051-24-3	Decachlorobiphenyl	104%	10-172%
2051-24-3	Decachlorobiphenyl	101%	10-172%

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33362-MB1	5G107656.D	1	06/09/21	TC	05/26/21	OP33362	G5G2697

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-41, FA85512-42, FA85512-43, FA85512-44, FA85512-45, FA85512-46, FA85512-47, FA85512-48, FA85512-49, FA85512-50, FA85512-51, FA85512-52, FA85512-53, FA85512-54, FA85512-55, FA85512-56, FA85512-57, FA85512-58, FA85512-59, FA85512-60

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	88%	24-152%
877-09-8	Tetrachloro-m-xylene	96%	24-152%
2051-24-3	Decachlorobiphenyl	99%	10-172%
2051-24-3	Decachlorobiphenyl	111%	10-172%

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33363-MB1	5G107211.D	1	05/29/21	RK	05/27/21	OP33363	G5G2686

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-61, FA85512-62, FA85512-63, FA85512-64, FA85512-65, FA85512-66, FA85512-67

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	81%	24-152%
877-09-8	Tetrachloro-m-xylene	86%	24-152%
2051-24-3	Decachlorobiphenyl	98%	10-172%
2051-24-3	Decachlorobiphenyl	103%	10-172%

Method Blank Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33599-MB1	XX2466346.D	1	06/06/21	TC	06/03/21	OP33599	GXX7458

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	75%	24-152%
877-09-8	Tetrachloro-m-xylene	77%	24-152%
2051-24-3	Decachlorobiphenyl	89%	10-172%
2051-24-3	Decachlorobiphenyl	87%	10-172%

Blank Spike Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33360-BS1	5G107156.D	1	05/28/21	RK	05/18/21	OP33360	G5G2686

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-1, FA85512-2, FA85512-3, FA85512-4, FA85512-6, FA85512-7, FA85512-8, FA85512-9, FA85512-10, FA85512-11, FA85512-12, FA85512-13, FA85512-14, FA85512-15, FA85512-16, FA85512-17, FA85512-18, FA85512-19, FA85512-20

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	290	145 [a]	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	269	135	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	102%	24-152%
877-09-8	Tetrachloro-m-xylene	96%	24-152%
2051-24-3	Decachlorobiphenyl	112%	10-172%
2051-24-3	Decachlorobiphenyl	114%	10-172%

(a) Outside program requirements bias high and no associated positive found in the QC batch.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33361-BS1	XX2466443.D	1	06/08/21	TC	05/25/21	OP33361	GXX7459

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-21, FA85512-22, FA85512-23, FA85512-24, FA85512-25, FA85512-26, FA85512-27, FA85512-28, FA85512-29, FA85512-30, FA85512-31, FA85512-32, FA85512-33, FA85512-34, FA85512-35, FA85512-36, FA85512-37, FA85512-38, FA85512-39, FA85512-40

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	173	130	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	133	170	127	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	118%	24-152%
877-09-8	Tetrachloro-m-xylene	115%	24-152%
2051-24-3	Decachlorobiphenyl	117%	10-172%
2051-24-3	Decachlorobiphenyl	125%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33362-BS1	5G107657.D	1	06/09/21	TC	05/26/21	OP33362	G5G2697

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-41, FA85512-42, FA85512-43, FA85512-44, FA85512-45, FA85512-46, FA85512-47, FA85512-48, FA85512-49, FA85512-50, FA85512-51, FA85512-52, FA85512-53, FA85512-54, FA85512-55, FA85512-56, FA85512-57, FA85512-58, FA85512-59, FA85512-60

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	219	110	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	218	109	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	84%	24-152%
877-09-8	Tetrachloro-m-xylene	89%	24-152%
2051-24-3	Decachlorobiphenyl	91%	10-172%
2051-24-3	Decachlorobiphenyl	118%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33363-BS1	5G107212.D	1	05/29/21	RK	05/27/21	OP33363	G5G2686

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-61, FA85512-62, FA85512-63, FA85512-64, FA85512-65, FA85512-66, FA85512-67

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	262	131	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	263	132	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	93%	24-152%
877-09-8	Tetrachloro-m-xylene	103%	24-152%
2051-24-3	Decachlorobiphenyl	110%	10-172%
2051-24-3	Decachlorobiphenyl	114%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33599-BS1	XX2466347.D	1	06/06/21	TC	06/03/21	OP33599	GXX7458

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	248	124	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	236	118	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	96%	24-152%
877-09-8	Tetrachloro-m-xylene	99%	24-152%
2051-24-3	Decachlorobiphenyl	108%	10-172%
2051-24-3	Decachlorobiphenyl	112%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33360-MS	5G107161.D	1	05/28/21	RK	05/18/21	OP33360	G5G2686
OP33360-MSD	5G107162.D	1	05/28/21	RK	05/18/21	OP33360	G5G2686
FA85512-1	5G107160.D	1	05/28/21	RK	05/18/21	OP33360	G5G2686

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-1, FA85512-2, FA85512-3, FA85512-4, FA85512-6, FA85512-7, FA85512-8, FA85512-9, FA85512-10, FA85512-11, FA85512-12, FA85512-13, FA85512-14, FA85512-15, FA85512-16, FA85512-17, FA85512-18, FA85512-19, FA85512-20

CAS No.	Compound	FA85512-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	55	U	214	227	106	222	255	115	12	14-200/59
11104-28-2	Aroclor 1221	55	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	55	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	55	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	55	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	55	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	55	U	214	260	122	222	262	118	1	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA85512-1	Limits
877-09-8	Tetrachloro-m-xylene	90%	90%	48%	24-152%
877-09-8	Tetrachloro-m-xylene	82%	84%	49%	24-152%
2051-24-3	Decachlorobiphenyl	102%	100%	67%	10-172%
2051-24-3	Decachlorobiphenyl	107%	106%	71%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33361-MS	XX2466445.D	1	06/08/21	TC	05/25/21	OP33361	GXX7459
OP33361-MSD	XX2466446.D	1	06/08/21	TC	05/25/21	OP33361	GXX7459
FA85512-21	XX2466444.D	1	06/08/21	TC	05/25/21	OP33361	GXX7459

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-21, FA85512-22, FA85512-23, FA85512-24, FA85512-25, FA85512-26, FA85512-27, FA85512-28, FA85512-29, FA85512-30, FA85512-31, FA85512-32, FA85512-33, FA85512-34, FA85512-35, FA85512-36, FA85512-37, FA85512-38, FA85512-39, FA85512-40

CAS No.	Compound	FA85512-21 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	39	U	157	189	120	155	235	151 [a]	22	14-200/59
11104-28-2	Aroclor 1221	39	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	39	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	39	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	39	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	39	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	39	U	157	169	108	155	201	130	17	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA85512-21	Limits
877-09-8	Tetrachloro-m-xylene	92%	112%	122%	24-152%
877-09-8	Tetrachloro-m-xylene	88%	107%	119%	24-152%
2051-24-3	Decachlorobiphenyl	93%	115%	129%	10-172%
2051-24-3	Decachlorobiphenyl	104%	128%	134%	10-172%

(a) Outside program requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33362-MS	5G107659.D	1	06/09/21	TC	05/26/21	OP33362	G5G2697
OP33362-MSD	5G107665.D	1	06/09/21	TC	05/26/21	OP33362	G5G2697
FA85512-41	5G107658.D	1	06/09/21	TC	05/26/21	OP33362	G5G2697

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-41, FA85512-42, FA85512-43, FA85512-44, FA85512-45, FA85512-46, FA85512-47, FA85512-48, FA85512-49, FA85512-50, FA85512-51, FA85512-52, FA85512-53, FA85512-54, FA85512-55, FA85512-56, FA85512-57, FA85512-58, FA85512-59, FA85512-60

CAS No.	Compound	FA85512-41 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	58	U	231	243	105	233	277	119	13	14-200/59
11104-28-2	Aroclor 1221	58	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	58	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	58	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	58	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	58	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	58	U	231	286	124	233	282	121	1	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA85512-41	Limits
877-09-8	Tetrachloro-m-xylene	82%	88%	91%	24-152%
877-09-8	Tetrachloro-m-xylene	85%	94%	98%	24-152%
2051-24-3	Decachlorobiphenyl	89%	98%	102%	10-172%
2051-24-3	Decachlorobiphenyl	85%	102%	103%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33363-MS	5G107653.D	1	06/09/21	TC	05/27/21	OP33363	G5G2697
OP33363-MSD	5G107654.D	1	06/09/21	TC	05/27/21	OP33363	G5G2697
FA85512-61	5G107641.D	1	06/08/21	TC	05/27/21	OP33363	G5G2697

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-61, FA85512-62, FA85512-63, FA85512-64, FA85512-65, FA85512-66, FA85512-67

CAS No.	Compound	FA85512-61 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	50	U	193	251	130	208	286	138 [a]	13	14-200/59
11104-28-2	Aroclor 1221	50	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	50	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	50	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	50	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	872			870			1370		45* [b]	50-150/37
11096-82-5	Aroclor 1260	50	U	193	436	226* [c]	208	576	277* [c]	28	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA85512-61	Limits
877-09-8	Tetrachloro-m-xylene	88%	98%	83%	24-152%
877-09-8	Tetrachloro-m-xylene	93%	105%	89%	24-152%
2051-24-3	Decachlorobiphenyl	100%	120%	95%	10-172%
2051-24-3	Decachlorobiphenyl	107%	198%* [d]	104%	10-172%

(a) Outside program requirements.
(b) Analytical precision exceeds in-house control limits.
(c) Outside control limits due to presence of other Aroclor pattern.
(d) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA85512
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33599-MS	XX2466349.D	1	06/06/21	TC	06/03/21	OP33599	GXX7458
OP33599-MSD	XX2466350.D	1	06/06/21	TC	06/03/21	OP33599	GXX7458
FA85512-5	XX2466348.D	1	06/06/21	TC	06/03/21	OP33599	GXX7458

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA85512-5

CAS No.	Compound	FA85512-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	55	U	207	200	97	207	209	101	4	14-200/59
11104-28-2	Aroclor 1221	55	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	55	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	55	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	55	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	55	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	55	U	207	249	120	207	224	108	11	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA85512-5	Limits
877-09-8	Tetrachloro-m-xylene	89%	87%	94%	24-152%
877-09-8	Tetrachloro-m-xylene	90%	92%	98%	24-152%
2051-24-3	Decachlorobiphenyl	96%	90%	101%	10-172%
2051-24-3	Decachlorobiphenyl	108%	100%	112%	10-172%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.07.05

SGS Job Number: FA86448

Sampling Date: 06/15/21

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: 22

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA86448

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA86448-1	06/15/21	10:20	JB	06/16/21	SO	Soil	SAEE-SB0012-004.0-20210615
FA86448-2	06/15/21	10:26	JB	06/16/21	SO	Soil	SAEE-SB0012-005.0-20210615
FA86448-3	06/15/21	11:10	JB	06/16/21	SO	Soil	SAEE-SB0338-004.0-20210615
FA86448-4	06/15/21	11:18	JB	06/16/21	SO	Soil	SAEE-SB0338-005.0-20210615

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA86448

Site: TQN 118 NASA PRLs; KSC, FL **Report Date:** 6/30/2021 3:44:17

4 Sample(s) were collected on 06/15/2021 and were received at SGS North America Inc - Orlando on 06/16/2021 properly preserved, at 2.4 Deg. C and intact. These Samples received an SGS Orlando job number of FA86448. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N: OP33933

FA86448-1: Analysis performed at SGS Dayton, NJ.

FA86448-2: Analysis performed at SGS Dayton, NJ.

FA86448-3: Analysis performed at SGS Dayton, NJ.

FA86448-4: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN19340

FA86448-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA86448-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA86448-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA86448-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FA86448
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	6/30/2021 12:58:27 P

On 06/17/2021, 4 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA86448 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP33933

- All samples were extracted within the recommended method holding time.
- Sample(s) FA86448-1MS, FA86448-1MSD, OP33933-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN19340

- Sample(s) FA86448-1DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA86448
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/15/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA86448-1	**SAEE-SB0012-004.0-20210615**					
No hits reported in this sample.						
FA86448-2	**SAEE-SB0012-005.0-20210615**					
No hits reported in this sample.						
FA86448-3	**SAEE-SB0338-004.0-20210615**					
No hits reported in this sample.						
FA86448-4	**SAEE-SB0338-005.0-20210615**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0012-004.0-20210615		
Lab Sample ID:	FA86448-1	**Date Sampled:**	06/15/21
Matrix:	SO - Soil	**Date Received:**	06/16/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G108072.D	1	06/28/21 16:44	ANJ	06/25/21 16:10	N:OP33933	N:G5G2713
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	85%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-005.0-20210615		
Lab Sample ID:	FA86448-2	**Date Sampled:**	06/15/21
Matrix:	SO - Soil	**Date Received:**	06/16/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G108075.D	1	06/28/21 18:22	ANJ	06/25/21 16:10	N:OP33933	N:G5G2713
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	92%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	93%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0338-004.0-20210615		
Lab Sample ID:	FA86448-3	**Date Sampled:**	06/15/21
Matrix:	SO - Soil	**Date Received:**	06/16/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G108076.D	1	06/28/21 18:55	ANJ	06/25/21 16:10	N:OP33933	N:G5G2713
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	62	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	62	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	62	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	62	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	62	58	55	ug/kg	
11097-69-1	Aroclor 1254	49 U	62	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	62	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	96%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0338-005.0-20210615		
Lab Sample ID:	FA86448-4	**Date Sampled:**	06/15/21
Matrix:	SO - Soil	**Date Received:**	06/16/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G108077.D	1	06/28/21 19:28	ANJ	06/25/21 16:10	N:OP33933	N:G5G2713
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	52	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		24-152%
877-09-8	Tetrachloro-m-xylene	87%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	89%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

FA86448

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information	Analytical Informatio	Matrix Codes
Company Name: HGL, Inc.	Project Name: PRL 227, LOC 3 Confirmatory Sampling		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air
Address: 2405 N. Courtney Parkway, STE 203	Street Kennedy Space Center		
City: Merrit Island State: FL Zip:32937	City Merritt Island State FL		
Project Contact: Denise Rivers Email:drivers@hgl.com	Project # NS1005.07.05		
Phone #:910-233-8460	Fax #		
Sampler(s) Name(s) (Printed) Sampler 1: Jason Bublitz Sampler 2: Dustin Lupis	Client Purchase Order #		

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0012-004.0-20210615	6/15/21	1020	JB	SO	1		X								X	
2	SAEE-SB0012-005.0-20210615	6/15/21	1026	JB	SO	1		X								X	
3	SAEE-SB0338-004.0-20210615	6/15/21	1110	JB	SO	1		X								X	
4	SAEE-SB0338-005.0-20210615	6/15/21	1118	JB	SO	1		X								X	

Turnaround Time (Business days)	Data Deliverable Information	Comments / Remarks
X 10 Day (Business) Approved By: / Date: 7 Day 5 Day 3 Day *RUSH* 2 Day *RUSH* 1 Day *RUSH* Other Rush T/A Data Available VIA Email or Lablink	☐ COMMERCIAL "A" (RESULTS ONLY) ☐ COMMERCIAL "B" (RESULTS PLUS QC) ☐ REDT1 (EPA LEVEL 3) ☐ FULLT1 (EPA LEVEL 4) ☐ EDD'S INITIAL ASSESSMENT LABEL VERIFICATION	

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		6-15-21/1520	2	3		6/16/21 1146 FX
5	Relinquished by/Affiliation FX	Date Time:	Received By/Affiliation 6 Pemit	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 4.2 IR-4

http://www.sgs.com/en/terms-and-conditions

Copy of COC PRL-227 6-15-21 Soil Rev 031318

FA86448: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA86448 **Client:** HGL,INC **Project:** PRL 227

Date / Time Received: 6/16/2021 9:50:00 AM **Delivery Method:** FX **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** -1.8; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 6/16/2021 9:50:00 AM Reviewer: _____ Date: _____

FA86448: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA86448
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 06/15/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA86448

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

INITIAL ASESSMENT DG-SA

SGS FIELD VERIFICATION

CHAIN OF CUSTODY SO

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA86448

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Company Name:
City: Orlando State: FL Zip: 32811	City: State:	Street Address:
Project Contact: E-mail: jean.dent-smith@sgs.com	Project #:	City: State: Zip:
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	Attention:
Sampler(s) Name(s): JB Phone:	Project Manager:	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
1	SAEE-SB0012-004.0-20210615		6/15/21	10:20:00 AM	JB	SO	1					1				X	
2	SAEE-SB0012-005.0-20210615		6/15/21	10:26:00 AM	JB	SO	1					1				X	F37 T1
3	SAEE-SB0338-004.0-20210615		6/15/21	11:10:00 AM	JB	SO	1					1				X	
4	SAEE-SB0338-005.0-20210615		6/15/21	11:18:00 AM	JB	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 6/30/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] QC

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	6/16/21	1 Fedex	2 Fedex	6/17/21 10:15	2
Relinquished by Sampler:	Date Time: 1700	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID:	On Ice	Cooler Temp. C16 -3°
5		5					

IR-4

SGS Sample Receipt Summary

Job Number: FA86448 **Client:** _____ **Project:** _____

Date / Time Received: 6/17/2021 10:15:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (2.3);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

FA86448: Chain of Custody
Page 2 of 2

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA86448
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33933-MB1	5G108070.D	1	06/28/21	TL	06/25/21	OP33933	G5G2713

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA86448-1, FA86448-2, FA86448-3, FA86448-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	82%	24-152%
877-09-8	Tetrachloro-m-xylene	87%	24-152%
2051-24-3	Decachlorobiphenyl	92%	10-172%
2051-24-3	Decachlorobiphenyl	89%	10-172%

Blank Spike Summary

Job Number: FA86448
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33933-BS1	5G108071.D	1	06/28/21	TL	06/25/21	OP33933	G5G2713

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA86448-1, FA86448-2, FA86448-3, FA86448-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	224	112	39-169
11096-82-5	Aroclor 1260	200	240	120	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	86%	24-152%
877-09-8	Tetrachloro-m-xylene	90%	24-152%
2051-24-3	Decachlorobiphenyl	91%	10-172%
2051-24-3	Decachlorobiphenyl	92%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA86448
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33933-MS	5G108073.D	1	06/28/21	TL	06/25/21	OP33933	G5G2713
OP33933-MSD	5G108074.D	1	06/28/21	TL	06/25/21	OP33933	G5G2713
FA86448-1	5G108072.D	1	06/28/21	TL	06/25/21	OP33933	G5G2713

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA86448-1, FA86448-2, FA86448-3, FA86448-4

CAS No.	Compound	FA86448-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	62	U	242	263	109	247	287	116	9	14-200/59
11096-82-5	Aroclor 1260	62	U	242	297	123	247	330	134	11	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA86448-1	Limits
877-09-8	Tetrachloro-m-xylene	83%	90%	81%	24-152%
877-09-8	Tetrachloro-m-xylene	88%	93%	86%	24-152%
2051-24-3	Decachlorobiphenyl	92%	97%	90%	10-172%
2051-24-3	Decachlorobiphenyl	87%	91%	85%	10-172%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.07.07

SGS Job Number: FA88588

Sampling Date: 08/31/21

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: **204**

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-1	08/31/21	08:25	HFJB	09/01/21	SO	Soil	SAEE-SB0339-000.5-20210831
FA88588-2	08/31/21	08:26	HFJB	09/01/21	SO	Soil	SAEE-SB0339-001.0-20210831
FA88588-3	08/31/21	08:27	HFJB	09/01/21	SO	Soil	SAEE-SB0339-002.0-20210831
FA88588-4	08/31/21	08:28	HFJB	09/01/21	SO	Soil	SAEE-SB0339-003.0-20210831
FA88588-5	08/31/21	08:35	HFJB	09/01/21	SO	Soil	SAEE-SB0340-000.5-20210831
FA88588-6	08/31/21	08:36	HFJB	09/01/21	SO	Soil	SAEE-SB0340-001.0-20210831
FA88588-7	08/31/21	08:37	HFJB	09/01/21	SO	Soil	SAEE-SB0340-002.0-20210831
FA88588-8	08/31/21	08:38	HFJB	09/01/21	SO	Soil	SAEE-SB0340-003.0-20210831
FA88588-9	08/31/21	08:52	HFJB	09/01/21	SO	Soil	SAEE-SB0341-000.5-20210831
FA88588-10	08/31/21	08:53	HFJB	09/01/21	SO	Soil	SAEE-SB0341-001.0-20210831
FA88588-11	08/31/21	08:54	HFJB	09/01/21	SO	Soil	SAEE-SB0341-002.0-20210831
FA88588-12	08/31/21	08:55	HFJB	09/01/21	SO	Soil	SAEE-SB0341-003.0-20210831
FA88588-13	08/31/21	08:58	HFJB	09/01/21	SO	Soil	SAEE-SB0342-000.5-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-14	08/31/21	08:59	HFJB	09/01/21	SO	Soil	SAEE-SB0342-001.0-20210831
FA88588-15	08/31/21	09:00	HFJB	09/01/21	SO	Soil	SAEE-SB0342-002.0-20210831
FA88588-16	08/31/21	09:01	HFJB	09/01/21	SO	Soil	SAEE-SB0342-003.0-20210831
FA88588-17	08/31/21	09:09	HFJB	09/01/21	SO	Soil	SAEE-SB0343-000.5-20210831
FA88588-18	08/31/21	09:10	HFJB	09/01/21	SO	Soil	SAEE-SB0343-001.0-20210831
FA88588-19	08/31/21	09:11	HFJB	09/01/21	SO	Soil	SAEE-SB0343-002.0-20210831
FA88588-20	08/31/21	09:28	HFJB	09/01/21	SO	Soil	SAEE-SB0344-000.5-20210831
FA88588-21	08/31/21	09:29	HFJB	09/01/21	SO	Soil	SAEE-SB0344-001.0-20210831
FA88588-22	08/31/21	09:30	HFJB	09/01/21	SO	Soil	SAEE-SB0344-002.0-20210831
FA88588-23	08/31/21	09:36	HFJB	09/01/21	SO	Soil	SAEE-SB0345-000.5-20210831
FA88588-24	08/31/21	09:37	HFJB	09/01/21	SO	Soil	SAEE-SB0345-001.0-20210831
FA88588-25	08/31/21	09:38	HFJB	09/01/21	SO	Soil	SAEE-SB0345-002.0-20210831
FA88588-26	08/31/21	09:39	HFJB	09/01/21	SO	Soil	SAEE-SB0345-003.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-27	08/31/21	09:52	HFJB	09/01/21	SO	Soil	SAEE-SB0346-000.5-20210831
FA88588-28	08/31/21	09:53	HFJB	09/01/21	SO	Soil	SAEE-SB0346-001.0-20210831
FA88588-29	08/31/21	09:54	HFJB	09/01/21	SO	Soil	SAEE-SB0346-002.0-20210831
FA88588-30	08/31/21	09:55	HFJB	09/01/21	SO	Soil	SAEE-SB0346-003.0-20210831
FA88588-31	08/31/21	09:56	HFJB	09/01/21	SO	Soil	SAEE-SB0346-004.0-20210831
FA88588-32	08/31/21	08:45	HFJB	09/01/21	SO	Soil	SAEE-SB0347-000.5-20210831
FA88588-33	08/31/21	08:46	HFJB	09/01/21	SO	Soil	SAEE-SB0347-001.0-20210831
FA88588-34	08/31/21	08:47	HFJB	09/01/21	SO	Soil	SAEE-SB0347-002.0-20210831
FA88588-35	08/31/21	08:48	HFJB	09/01/21	SO	Soil	SAEE-SB0347-003.0-20210831
FA88588-36	08/31/21	08:49	HFJB	09/01/21	SO	Soil	SAEE-SB0347-004.0-20210831
FA88588-37	08/31/21	09:14	HFJB	09/01/21	SO	Soil	SAEE-SB0348-000.5-20210831
FA88588-38	08/31/21	09:15	HFJB	09/01/21	SO	Soil	SAEE-SB0348-001.0-20210831
FA88588-39	08/31/21	09:16	HFJB	09/01/21	SO	Soil	SAEE-SB0348-002.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-40	08/31/21	09:17	HFJB	09/01/21	SO	Soil	SAEE-SB0348-003.0-20210831
FA88588-41	08/31/21	09:18	HFJB	09/01/21	SO	Soil	SAEE-SB0348-004.0-20210831
FA88588-42	08/31/21	10:05	HFJB	09/01/21	SO	Soil	SAEE-SB0349-000.5-20210831
FA88588-43	08/31/21	10:06	HFJB	09/01/21	SO	Soil	SAEE-SB0349-001.0-20210831
FA88588-44	08/31/21	10:07	HFJB	09/01/21	SO	Soil	SAEE-SB0349-002.0-20210831
FA88588-45	08/31/21	10:08	HFJB	09/01/21	SO	Soil	SAEE-SB0349-003.0-20210831
FA88588-46	08/31/21	10:09	HFJB	09/01/21	SO	Soil	SAEE-SB0349-004.0-20210831
FA88588-47	08/31/21	10:23	HFJB	09/01/21	SO	Soil	SAEE-SB0350-000.5-20210831
FA88588-48	08/31/21	10:24	HFJB	09/01/21	SO	Soil	SAEE-SB0350-001.0-20210831
FA88588-49	08/31/21	10:25	HFJB	09/01/21	SO	Soil	SAEE-SB0350-002.0-20210831
FA88588-50	08/31/21	10:26	HFJB	09/01/21	SO	Soil	SAEE-SB0350-003.0-20210831
FA88588-51	08/31/21	10:27	HFJB	09/01/21	SO	Soil	SAEE-SB0350-004.0-20210831
FA88588-52	08/31/21	11:07	HFJB	09/01/21	SO	Soil	SAEE-SB0296-004.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-53	08/31/21	11:19	HFJB	09/01/21	SO	Soil	SAEE-SB0352-000.5-20210831
FA88588-54	08/31/21	11:20	HFJB	09/01/21	SO	Soil	SAEE-SB0352-001.0-20210831
FA88588-55	08/31/21	11:21	HFJB	09/01/21	SO	Soil	SAEE-SB0352-002.0-20210831
FA88588-56	08/31/21	11:22	HFJB	09/01/21	SO	Soil	SAEE-SB0352-003.0-20210831
FA88588-57	08/31/21	11:23	HFJB	09/01/21	SO	Soil	SAEE-SB0352-004.0-20210831
FA88588-58	08/31/21	11:25	HFJB	09/01/21	SO	Soil	SAEE-SB0353-000.5-20210831
FA88588-59	08/31/21	11:26	HFJB	09/01/21	SO	Soil	SAEE-SB0353-001.0-20210831
FA88588-60	08/31/21	11:27	HFJB	09/01/21	SO	Soil	SAEE-SB0353-002.0-20210831
FA88588-61	08/31/21	11:28	HFJB	09/01/21	SO	Soil	SAEE-SB0353-003.0-20210831
FA88588-62	08/31/21	11:29	HFJB	09/01/21	SO	Soil	SAEE-SB0353-004.0-20210831
FA88588-63	08/31/21	12:02	HFJB	09/01/21	SO	Soil	SAEE-SB0354-000.5-20210831
FA88588-64	08/31/21	12:03	HFJB	09/01/21	SO	Soil	SAEE-SB0354-001.0-20210831
FA88588-65	08/31/21	12:04	HFJB	09/01/21	SO	Soil	SAEE-SB0354-002.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-66	08/31/21	12:05	HFJB	09/01/21	SO	Soil	SAEE-SB0354-003.0-20210831
FA88588-67	08/31/21	12:06	HFJB	09/01/21	SO	Soil	SAEE-SB0354-004.0-20210831
FA88588-68	08/31/21	10:54	HFJB	09/01/21	SO	Soil	SAEE-SB0355-000.5-20210831
FA88588-69	08/31/21	10:55	HFJB	09/01/21	SO	Soil	SAEE-SB0355-001.0-20210831
FA88588-70	08/31/21	10:56	HFJB	09/01/21	SO	Soil	SAEE-SB0355-002.0-20210831
FA88588-71	08/31/21	10:57	HFJB	09/01/21	SO	Soil	SAEE-SB0355-003.0-20210831
FA88588-72	08/31/21	10:58	HFJB	09/01/21	SO	Soil	SAEE-SB0355-004.0-20210831
FA88588-73	08/31/21	10:13	HFJB	09/01/21	SO	Soil	SAEE-SB0357-000.5-20210831
FA88588-74	08/31/21	10:14	HFJB	09/01/21	SO	Soil	SAEE-SB0357-001.0-20210831
FA88588-75	08/31/21	10:15	HFJB	09/01/21	SO	Soil	SAEE-SB0357-002.0-20210831
FA88588-76	08/31/21	10:16	HFJB	09/01/21	SO	Soil	SAEE-SB0357-003.0-20210831
FA88588-77	08/31/21	10:17	HFJB	09/01/21	SO	Soil	SAEE-SB0357-004.0-20210831
FA88588-78	08/31/21	12:28	HFJB	09/01/21	SO	Soil	SAEE-SB0358-000.5-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-79	08/31/21	12:29	HFJB	09/01/21	SO	Soil	SAEE-SB0358-001.0-20210831
FA88588-80	08/31/21	12:30	HFJB	09/01/21	SO	Soil	SAEE-SB0358-002.0-20210831
FA88588-81	08/31/21	12:31	HFJB	09/01/21	SO	Soil	SAEE-SB0358-003.0-20210831
FA88588-82	08/31/21	12:32	HFJB	09/01/21	SO	Soil	SAEE-SB0358-004.0-20210831
FA88588-83	08/31/21	09:43	HFJB	09/01/21	SO	Soil	SAEE-SB0359-000.5-20210831
FA88588-84	08/31/21	09:44	HFJB	09/01/21	SO	Soil	SAEE-SB0359-001.0-20210831
FA88588-85	08/31/21	09:45	HFJB	09/01/21	SO	Soil	SAEE-SB0359-002.0-20210831
FA88588-86	08/31/21	09:46	HFJB	09/01/21	SO	Soil	SAEE-SB0359-003.0-20210831
FA88588-87	08/31/21	09:47	HFJB	09/01/21	SO	Soil	SAEE-SB0359-004.0-20210831
FA88588-88	08/31/21	11:51	HFJB	09/01/21	SO	Soil	SAEE-SB0360-000.5-20210831
FA88588-89	08/31/21	11:52	HFJB	09/01/21	SO	Soil	SAEE-SB0360-001.0-20210831
FA88588-90	08/31/21	11:53	HFJB	09/01/21	SO	Soil	SAEE-SB0360-002.0-20210831
FA88588-91	08/31/21	11:54	HFJB	09/01/21	SO	Soil	SAEE-SB0360-003.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88588-92	08/31/21	11:55	HFJB	09/01/21	SO	Soil	SAEE-SB0360-004.0-20210831
FA88588-93	08/31/21	10:38	HFJB	09/01/21	SO	Soil	SAEE-SB0361-000.5-20210831
FA88588-94	08/31/21	10:39	HFJB	09/01/21	SO	Soil	SAEE-SB0361-001.0-20210831
FA88588-95	08/31/21	10:40	HFJB	09/01/21	SO	Soil	SAEE-SB0361-002.0-20210831
FA88588-96	08/31/21	10:41	HFJB	09/01/21	SO	Soil	SAEE-SB0361-003.0-20210831
FA88588-97	08/31/21	10:42	HFJB	09/01/21	SO	Soil	SAEE-SB0361-004.0-20210831
FA88588-98	08/31/21	12:17	HFJB	09/01/21	SO	Soil	SAEE-SB0362-000.5-20210831
FA88588-99	08/31/21	12:18	HFJB	09/01/21	SO	Soil	SAEE-SB0362-001.0-20210831
FA88588-100	08/31/21	12:19	HFJB	09/01/21	SO	Soil	SAEE-SB0362-002.0-20210831
FA88588-101	08/31/21	12:20	HFJB	09/01/21	SO	Soil	SAEE-SB0362-003.0-20210831
FA88588-102	08/31/21	12:11	HFJB	09/01/21	SO	Soil	SAEE-SB0356-000.5-20210831
FA88588-103	08/31/21	12:12	HFJB	09/01/21	SO	Soil	SAEE-SB0356-001.0-20210831
FA88588-104	08/31/21	12:13	HFJB	09/01/21	SO	Soil	SAEE-SB0356-002.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA88588

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.07.07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA88588-105	08/31/21	12:14	HFJB	09/01/21	SO	Soil	SAEE-SB0356-003.0-20210831

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA88588

Site: TQN 118 NASA PRLs; KSC, FL **Report Date:** 10/20/2021 10:22:51

On 09/01/2021, 105 Sample(s), 0 Trip Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA88588 was Assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N: OP35300

FA88588-1: Analysis performed at SGS Dayton, NJ.
FA88588-2: Analysis performed at SGS Dayton, NJ.
FA88588-3: Analysis performed at SGS Dayton, NJ.
FA88588-4: Analysis performed at SGS Dayton, NJ.
FA88588-5: Analysis performed at SGS Dayton, NJ.
FA88588-6: Analysis performed at SGS Dayton, NJ.
FA88588-7: Analysis performed at SGS Dayton, NJ.
FA88588-8: Analysis performed at SGS Dayton, NJ.
FA88588-9: Analysis performed at SGS Dayton, NJ.
FA88588-10: Analysis performed at SGS Dayton, NJ.
FA88588-11: Analysis performed at SGS Dayton, NJ.
FA88588-12: Analysis performed at SGS Dayton, NJ.
FA88588-13: Analysis performed at SGS Dayton, NJ.
FA88588-14: Analysis performed at SGS Dayton, NJ.
FA88588-16: Analysis performed at SGS Dayton, NJ.
FA88588-17: Analysis performed at SGS Dayton, NJ.
FA88588-18: Analysis performed at SGS Dayton, NJ.
FA88588-20: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35301

FA88588-21: Analysis performed at SGS Dayton, NJ.
FA88588-22: Analysis performed at SGS Dayton, NJ.
FA88588-23: Analysis performed at SGS Dayton, NJ.
FA88588-24: Analysis performed at SGS Dayton, NJ.
FA88588-25: Analysis performed at SGS Dayton, NJ.
FA88588-26: Analysis performed at SGS Dayton, NJ.
FA88588-27: Analysis performed at SGS Dayton, NJ.
FA88588-28: Analysis performed at SGS Dayton, NJ.
FA88588-29: Analysis performed at SGS Dayton, NJ.
FA88588-30: Analysis performed at SGS Dayton, NJ.
FA88588-32: Analysis performed at SGS Dayton, NJ.
FA88588-33: Analysis performed at SGS Dayton, NJ.
FA88588-34: Analysis performed at SGS Dayton, NJ.
FA88588-35: Analysis performed at SGS Dayton, NJ.
FA88588-36: Analysis performed at SGS Dayton, NJ.
FA88588-37: Analysis performed at SGS Dayton, NJ.
FA88588-38: Analysis performed at SGS Dayton, NJ.
FA88588-39: Analysis performed at SGS Dayton, NJ.
FA88588-40: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35303

FA88588-61: Analysis performed at SGS Dayton, NJ.
FA88588-62: Analysis performed at SGS Dayton, NJ.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP35303

FA88588-63: Analysis performed at SGS Dayton, NJ.
FA88588-64: Analysis performed at SGS Dayton, NJ.
FA88588-65: Analysis performed at SGS Dayton, NJ.
FA88588-66: Analysis performed at SGS Dayton, NJ.
FA88588-67: Analysis performed at SGS Dayton, NJ.
FA88588-68: Analysis performed at SGS Dayton, NJ.
FA88588-69: Analysis performed at SGS Dayton, NJ.
FA88588-70: Analysis performed at SGS Dayton, NJ.
FA88588-71: Analysis performed at SGS Dayton, NJ.
FA88588-72: Analysis performed at SGS Dayton, NJ.
FA88588-73: Analysis performed at SGS Dayton, NJ.
FA88588-74: Analysis performed at SGS Dayton, NJ.
FA88588-75: Analysis performed at SGS Dayton, NJ.
FA88588-76: Analysis performed at SGS Dayton, NJ.
FA88588-77: Analysis performed at SGS Dayton, NJ.
FA88588-78: Analysis performed at SGS Dayton, NJ.
FA88588-79: Analysis performed at SGS Dayton, NJ.
FA88588-80: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35304

FA88588-81: Analysis performed at SGS Dayton, NJ.
FA88588-82: Analysis performed at SGS Dayton, NJ.
FA88588-83: Analysis performed at SGS Dayton, NJ.
FA88588-84: Analysis performed at SGS Dayton, NJ.
FA88588-85: Analysis performed at SGS Dayton, NJ.
FA88588-86: Analysis performed at SGS Dayton, NJ.
FA88588-87: Analysis performed at SGS Dayton, NJ.
FA88588-88: Analysis performed at SGS Dayton, NJ.
FA88588-89: Analysis performed at SGS Dayton, NJ.
FA88588-90: Analysis performed at SGS Dayton, NJ.
FA88588-91: Analysis performed at SGS Dayton, NJ.
FA88588-92: Analysis performed at SGS Dayton, NJ.
FA88588-93: Analysis performed at SGS Dayton, NJ.
FA88588-94: Analysis performed at SGS Dayton, NJ.
FA88588-95: Analysis performed at SGS Dayton, NJ.
FA88588-96: Analysis performed at SGS Dayton, NJ.
FA88588-97: Analysis performed at SGS Dayton, NJ.
FA88588-98: Analysis performed at SGS Dayton, NJ.
FA88588-99: Analysis performed at SGS Dayton, NJ.
FA88588-100: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35305

FA88588-101: Analysis performed at SGS Dayton, NJ.
FA88588-102: Analysis performed at SGS Dayton, NJ.
FA88588-103: Analysis performed at SGS Dayton, NJ.
FA88588-104: Analysis performed at SGS Dayton, NJ.
FA88588-105: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35412

FA88588-15: Analysis performed at SGS Dayton, NJ.
FA88588-19: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35559

FA88588-31: Analysis performed at SGS Dayton, NJ.
FA88588-41: Analysis performed at SGS Dayton, NJ.
FA88588-42: Analysis performed at SGS Dayton, NJ.
FA88588-43: Analysis performed at SGS Dayton, NJ.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP35559

FA88588-44: Analysis performed at SGS Dayton, NJ.
FA88588-45: Analysis performed at SGS Dayton, NJ.
FA88588-46: Analysis performed at SGS Dayton, NJ.
FA88588-47: Analysis performed at SGS Dayton, NJ.
FA88588-48: Analysis performed at SGS Dayton, NJ.
FA88588-49: Analysis performed at SGS Dayton, NJ.
FA88588-50: Analysis performed at SGS Dayton, NJ.
FA88588-51: Analysis performed at SGS Dayton, NJ.
FA88588-52: Analysis performed at SGS Dayton, NJ.
FA88588-53: Analysis performed at SGS Dayton, NJ.
FA88588-54: Analysis performed at SGS Dayton, NJ.
FA88588-55: Analysis performed at SGS Dayton, NJ.
FA88588-56: Analysis performed at SGS Dayton, NJ.
FA88588-57: Analysis performed at SGS Dayton, NJ.
FA88588-58: Analysis performed at SGS Dayton, NJ.
FA88588-59: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP35560

FA88588-60: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN21748

FA88588-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-5 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-6 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-7 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-8 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-9 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-10 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-11 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN21751

FA88588-12 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-13 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-14 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-15 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-20 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-21 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-22 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-23 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-24 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-25 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-26 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-27 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-28 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-29 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-30 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-31 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN21753

FA88588-32 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-33 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-34 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-35 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-36 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-37 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-38 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-39 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-40 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-41 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-42 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-43 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-44 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-45 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-46 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-47 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-48 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-49 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-50 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-51 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN21755

FA88588-52 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-53 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-54 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-55 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-56 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-57 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-58 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-59 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-60 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-61 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-62 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-63 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-64 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-65 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-66 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-67 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-68 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-69 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-70 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-71 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN21757

FA88588-72 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-73 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-74 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-75 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-76 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-77 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-78 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-79 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-80 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-81 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-82 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN21757

FA88588-83 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-84 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-85 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-86 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-87 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-88 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-89 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-90 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-91 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN21759

FA88588-92 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-93 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-94 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-95 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-96 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-97 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-98 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-99 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-100 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-101 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-102 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-103 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-104 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA88588-105 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: SGS Orlando, FL **Job No:** FA88588

Site: HGLFLMI: TQN 118 NASA PRLs; KSC, FL **Report Date** 10/20/2021 9:59:10 A

On 09/04/2021, 105 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA88588 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP35300

- All samples were extracted within the recommended method holding time.
- Sample(s) FA88588-1MS, FA88588-1MSD, OP35300-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP35300-MS for Aroclor 1260: Outside program requirements.
- OP35300-MB1 for Tetrachloro-m-xylene: Outside of in house control limits.
- OP35300-MB1 for Tetrachloro-m-xylene: Outside of in house control limits.
- OP35300-MSD for Decachlorobiphenyl: Outside control limits due to matrix interference.
- OP35300-MS for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP35301

- All samples were extracted within the recommended method holding time.
- Sample(s) FA88588-21MS, FA88588-21MSD, OP35301-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-38 have surrogates outside control limits. Probable cause due to matrix interference.
- FA88588-38 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA88588-38 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- FA88588-24 for Aroclor 1254: More than 40 % RPD for detected concentrations between the two GC columns.

Matrix: SO **Batch ID:** OP35303

- All samples were extracted within the recommended method holding time.
- Sample(s) FA88588-61MS, FA88588-61MSD, OP35303-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-78 have surrogates outside control limits. Probable cause due to matrix interference.
- FA88588-78 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP35304

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-81MS, FA88588-81MSD, OP35304-MSMSD were used as the QC samples indicated.
- FA88588-92 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-84 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-89 for Tetrachloro-m-xylene: Outside program requirements but within in houes control limits.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP35304

- FA88588-86 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-99 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-97 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-85 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA88588-93 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.

Matrix: SO **Batch ID:** OP35305

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-101MS, FA88588-101MSD, OP35305-MSMSD were used as the QC samples indicated.
- Sample(s) FA88588-104, FA88588-105 have surrogates outside control limits. Probable cause due to matrix interference.
- FA88588-105 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA88588-104 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP35412

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-15MS, FA88588-15MSD, OP35412-MSMSD were used as the QC samples indicated.
- OP35412-MB1 for Decachlorobiphenyl: Outside of in house control limits.
- OP35412-MB1 for Tetrachloro-m-xylene: Outside of in house control limits.
- OP35412-BS1 for Tetrachloro-m-xylene: Outside progra requirements.
- FA88588-15 for Tetrachloro-m-xylene: Outside program requirements.

Matrix: SO **Batch ID:** OP35559

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-31MS, FA88588-31MSD, OP35559-MSMSD were used as the QC samples indicated.
- Sample(s) FA88588-54 have surrogates outside control limits. Probable cause due to matrix interference.
- FA88588-54 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- OP35559-BS1 for Tetrachloro-m-xylene: Outside program requirements.
- FA88588-54 for Tetrachloro-m-xylene: Outside control limits due to matrix interference.
- FA88588-54 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- FA88588-54 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA88588-46 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- FA88588-54 for Tetrachloro-m-xylene: Outside control limits due to matrix interference.
- FA88588-55 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- FA88588-58 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- FA88588-51 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.

Matrix: SO **Batch ID:** OP35560

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA88588-60MS, FA88588-60MSD, OP35560-MSMSD were used as the QC samples indicated.
- OP35560-BS1 for Aroclor 1260: Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix:	SO	Batch ID:	OP35560

- FA88588-60 for Tetrachloro-m-xylene: Outside program requirements due to matrix interference.
- OP35560-MB1 for Tetrachloro-m-xylene: Outside program requirements.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix:	SO	Batch ID:	GN21748

- Sample(s) JD30564-5RDUP were used as the QC samples for Solids, Percent.

Matrix:	SO	Batch ID:	GN21751

- Sample(s) FA88588-12DUP were used as the QC samples for Solids, Percent.

Matrix:	SO	Batch ID:	GN21753

- Sample(s) FA88588-41DUP were used as the QC samples for Solids, Percent.

Matrix:	SO	Batch ID:	GN21755

- Sample(s) FA88588-52DUP were used as the QC samples for Solids, Percent.

Matrix:	SO	Batch ID:	GN21757

- Sample(s) FA88588-72DUP were used as the QC samples for Solids, Percent.

Matrix:	SO	Batch ID:	GN21759

- Sample(s) FA88588-92DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-1	**SAEE-SB0339-000.5-20210831**					
Aroclor 1254 [a]		1140	74	59	ug/kg	SW846 8082A
FA88588-2	**SAEE-SB0339-001.0-20210831**					
Aroclor 1254 [a]		220	67	54	ug/kg	SW846 8082A
FA88588-3	**SAEE-SB0339-002.0-20210831**					
Aroclor 1254 [a]		491	65	52	ug/kg	SW846 8082A
FA88588-4	**SAEE-SB0339-003.0-20210831**					
No hits reported in this sample.						
FA88588-5	**SAEE-SB0340-000.5-20210831**					
Aroclor 1254 [a]		115	61	49	ug/kg	SW846 8082A
FA88588-6	**SAEE-SB0340-001.0-20210831**					
No hits reported in this sample.						
FA88588-7	**SAEE-SB0340-002.0-20210831**					
No hits reported in this sample.						
FA88588-8	**SAEE-SB0340-003.0-20210831**					
No hits reported in this sample.						
FA88588-9	**SAEE-SB0341-000.5-20210831**					
Aroclor 1254 [a]		330	60	48	ug/kg	SW846 8082A
FA88588-10	**SAEE-SB0341-001.0-20210831**					
No hits reported in this sample.						
FA88588-11	**SAEE-SB0341-002.0-20210831**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-12	**SAEE-SB0341-003.0-20210831**					
No hits reported in this sample.						
FA88588-13	**SAEE-SB0342-000.5-20210831**					
Aroclor 1254 [a]		249	61	48	ug/kg	SW846 8082A
FA88588-14	**SAEE-SB0342-001.0-20210831**					
No hits reported in this sample.						
FA88588-15	**SAEE-SB0342-002.0-20210831**					
No hits reported in this sample.						
FA88588-16	**SAEE-SB0342-003.0-20210831**					
No hits reported in this sample.						
FA88588-17	**SAEE-SB0343-000.5-20210831**					
No hits reported in this sample.						
FA88588-18	**SAEE-SB0343-001.0-20210831**					
No hits reported in this sample.						
FA88588-19	**SAEE-SB0343-002.0-20210831**					
No hits reported in this sample.						
FA88588-20	**SAEE-SB0344-000.5-20210831**					
Aroclor 1254 [a]		817	59	47	ug/kg	SW846 8082A
FA88588-21	**SAEE-SB0344-001.0-20210831**					
Aroclor 1254 [a]		89.2	60	48	ug/kg	SW846 8082A
FA88588-22	**SAEE-SB0344-002.0-20210831**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-23	**SAEE-SB0345-000.5-20210831**					
No hits reported in this sample.						
FA88588-24	**SAEE-SB0345-001.0-20210831**					
Aroclor 1254 [b]		46.5 J	69	55	ug/kg	SW846 8082A
FA88588-25	**SAEE-SB0345-002.0-20210831**					
Aroclor 1254 [a]		69.8	67	54	ug/kg	SW846 8082A
FA88588-26	**SAEE-SB0345-003.0-20210831**					
Aroclor 1254 [a]		456	62	50	ug/kg	SW846 8082A
FA88588-27	**SAEE-SB0346-000.5-20210831**					
Aroclor 1254 [a]		74.6	62	49	ug/kg	SW846 8082A
FA88588-28	**SAEE-SB0346-001.0-20210831**					
Aroclor 1254 [a]		49.2 J	69	55	ug/kg	SW846 8082A
FA88588-29	**SAEE-SB0346-002.0-20210831**					
Aroclor 1254 [a]		83.2	61	49	ug/kg	SW846 8082A
FA88588-30	**SAEE-SB0346-003.0-20210831**					
No hits reported in this sample.						
FA88588-31	**SAEE-SB0346-004.0-20210831**					
No hits reported in this sample.						
FA88588-32	**SAEE-SB0347-000.5-20210831**					
Aroclor 1254 [a]		139	59	47	ug/kg	SW846 8082A
FA88588-33	**SAEE-SB0347-001.0-20210831**					
Aroclor 1254 [a]		260	68	54	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-34	**SAEE-SB0347-002.0-20210831**					
Aroclor 1254 [a]		365	61	49	ug/kg	SW846 8082A
FA88588-35	**SAEE-SB0347-003.0-20210831**					
No hits reported in this sample.						
FA88588-36	**SAEE-SB0347-004.0-20210831**					
No hits reported in this sample.						
FA88588-37	**SAEE-SB0348-000.5-20210831**					
No hits reported in this sample.						
FA88588-38	**SAEE-SB0348-001.0-20210831**					
Aroclor 1254 [a]		4140	260	210	ug/kg	SW846 8082A
FA88588-39	**SAEE-SB0348-002.0-20210831**					
Aroclor 1254 [a]		1170	51	41	ug/kg	SW846 8082A
FA88588-40	**SAEE-SB0348-003.0-20210831**					
Aroclor 1254 [a]		582	58	47	ug/kg	SW846 8082A
FA88588-41	**SAEE-SB0348-004.0-20210831**					
Aroclor 1254 [a]		189	59	47	ug/kg	SW846 8082A
FA88588-42	**SAEE-SB0349-000.5-20210831**					
Aroclor 1254 [a]		545	67	54	ug/kg	SW846 8082A
FA88588-43	**SAEE-SB0349-001.0-20210831**					
Aroclor 1254 [a]		455	64	51	ug/kg	SW846 8082A
FA88588-44	**SAEE-SB0349-002.0-20210831**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-45	**SAEE-SB0349-003.0-20210831**					
Aroclor 1254 [a]		67.3	62	50	ug/kg	SW846 8082A
FA88588-46	**SAEE-SB0349-004.0-20210831**					
No hits reported in this sample.						
FA88588-47	**SAEE-SB0350-000.5-20210831**					
Aroclor 1254 [a]		611	52	42	ug/kg	SW846 8082A
FA88588-48	**SAEE-SB0350-001.0-20210831**					
Aroclor 1254 [a]		1100	68	54	ug/kg	SW846 8082A
FA88588-49	**SAEE-SB0350-002.0-20210831**					
Aroclor 1254 [a]		406	61	49	ug/kg	SW846 8082A
FA88588-50	**SAEE-SB0350-003.0-20210831**					
No hits reported in this sample.						
FA88588-51	**SAEE-SB0350-004.0-20210831**					
No hits reported in this sample.						
FA88588-52	**SAEE-SB0296-004.0-20210831**					
Aroclor 1254 [a]		571	58	47	ug/kg	SW846 8082A
FA88588-53	**SAEE-SB0352-000.5-20210831**					
Aroclor 1254 [a]		229	53	42	ug/kg	SW846 8082A
FA88588-54	**SAEE-SB0352-001.0-20210831**					
Aroclor 1254 [a]		3290	280	220	ug/kg	SW846 8082A
FA88588-55	**SAEE-SB0352-002.0-20210831**					
Aroclor 1254 [a]		8800	320	250	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-56	**SAEE-SB0352-003.0-20210831**					
Aroclor 1254 [a]		1050	60	48	ug/kg	SW846 8082A
FA88588-57	**SAEE-SB0352-004.0-20210831**					
Aroclor 1254 [a]		195	63	51	ug/kg	SW846 8082A
FA88588-58	**SAEE-SB0353-000.5-20210831**					
Aroclor 1254 [a]		1380	53	43	ug/kg	SW846 8082A
FA88588-59	**SAEE-SB0353-001.0-20210831**					
Aroclor 1254 [a]		923	52	41	ug/kg	SW846 8082A
FA88588-60	**SAEE-SB0353-002.0-20210831**					
Aroclor 1254 [a]		89.3	64	51	ug/kg	SW846 8082A
FA88588-61	**SAEE-SB0353-003.0-20210831**					
No hits reported in this sample.						
FA88588-62	**SAEE-SB0353-004.0-20210831**					
Aroclor 1254 [a]		43.8 J	57	46	ug/kg	SW846 8082A
FA88588-63	**SAEE-SB0354-000.5-20210831**					
Aroclor 1254 [a]		72.6	45	36	ug/kg	SW846 8082A
FA88588-64	**SAEE-SB0354-001.0-20210831**					
Aroclor 1254 [a]		60.6	47	38	ug/kg	SW846 8082A
FA88588-65	**SAEE-SB0354-002.0-20210831**					
Aroclor 1254 [a]		93.8	52	42	ug/kg	SW846 8082A
FA88588-66	**SAEE-SB0354-003.0-20210831**					
Aroclor 1254 [a]		208	46	37	ug/kg	SW846 8082A
Aroclor 1260 [a]		497	46	37	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-67	**SAEE-SB0354-004.0-20210831**					
Aroclor 1254 [a]		210	53	43	ug/kg	SW846 8082A
FA88588-68	**SAEE-SB0355-000.5-20210831**					
Aroclor 1260 [a]		2580	58	46	ug/kg	SW846 8082A
FA88588-69	**SAEE-SB0355-001.0-20210831**					
Aroclor 1260 [a]		488	63	50	ug/kg	SW846 8082A
FA88588-70	**SAEE-SB0355-002.0-20210831**					
Aroclor 1260 [a]		493	55	44	ug/kg	SW846 8082A
FA88588-71	**SAEE-SB0355-003.0-20210831**					
No hits reported in this sample.						
FA88588-72	**SAEE-SB0355-004.0-20210831**					
Aroclor 1260 [a]		46.0 J	60	48	ug/kg	SW846 8082A
FA88588-73	**SAEE-SB0357-000.5-20210831**					
Aroclor 1260 [a]		1450	63	51	ug/kg	SW846 8082A
FA88588-74	**SAEE-SB0357-001.0-20210831**					
Aroclor 1260 [a]		467	68	54	ug/kg	SW846 8082A
FA88588-75	**SAEE-SB0357-002.0-20210831**					
Aroclor 1260 [a]		705	60	48	ug/kg	SW846 8082A
FA88588-76	**SAEE-SB0357-003.0-20210831**					
Aroclor 1260 [a]		85.3	53	43	ug/kg	SW846 8082A
FA88588-77	**SAEE-SB0357-004.0-20210831**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-78	**SAEE-SB0358-000.5-20210831**					
Aroclor 1260 [a]		10300	600	480	ug/kg	SW846 8082A
FA88588-79	**SAEE-SB0358-001.0-20210831**					
Aroclor 1260 [a]		1130	50	40	ug/kg	SW846 8082A
FA88588-80	**SAEE-SB0358-002.0-20210831**					
Aroclor 1260 [a]		206	61	48	ug/kg	SW846 8082A
FA88588-81	**SAEE-SB0358-003.0-20210831**					
Aroclor 1260 [a]		539	56	45	ug/kg	SW846 8082A
FA88588-82	**SAEE-SB0358-004.0-20210831**					
Aroclor 1260 [a]		397	56	45	ug/kg	SW846 8082A
FA88588-83	**SAEE-SB0359-000.5-20210831**					
Aroclor 1260 [a]		4570	240	190	ug/kg	SW846 8082A
FA88588-84	**SAEE-SB0359-001.0-20210831**					
Aroclor 1260 [a]		1110	47	37	ug/kg	SW846 8082A
FA88588-85	**SAEE-SB0359-002.0-20210831**					
Aroclor 1260 [a]		72.6	49	39	ug/kg	SW846 8082A
FA88588-86	**SAEE-SB0359-003.0-20210831**					
Aroclor 1260 [a]		54.8 J	56	44	ug/kg	SW846 8082A
FA88588-87	**SAEE-SB0359-004.0-20210831**					
Aroclor 1260 [a]		61.5	58	47	ug/kg	SW846 8082A
FA88588-88	**SAEE-SB0360-000.5-20210831**					
Aroclor 1260 [a]		721	53	42	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-89	**SAEE-SB0360-001.0-20210831**					
Aroclor 1260 [a]		464	57	46	ug/kg	SW846 8082A
FA88588-90	**SAEE-SB0360-002.0-20210831**					
Aroclor 1260 [a]		1000	58	47	ug/kg	SW846 8082A
FA88588-91	**SAEE-SB0360-003.0-20210831**					
Aroclor 1260 [a]		117	56	45	ug/kg	SW846 8082A
FA88588-92	**SAEE-SB0360-004.0-20210831**					
Aroclor 1260 [a]		31.2 J	58	46	ug/kg	SW846 8082A
FA88588-93	**SAEE-SB0361-000.5-20210831**					
Aroclor 1260 [a]		295	61	49	ug/kg	SW846 8082A
FA88588-94	**SAEE-SB0361-001.0-20210831**					
Aroclor 1260 [a]		302	57	46	ug/kg	SW846 8082A
FA88588-95	**SAEE-SB0361-002.0-20210831**					
Aroclor 1260 [a]		166	60	48	ug/kg	SW846 8082A
FA88588-96	**SAEE-SB0361-003.0-20210831**					
Aroclor 1260 [a]		77.5	56	45	ug/kg	SW846 8082A
FA88588-97	**SAEE-SB0361-004.0-20210831**					
Aroclor 1260 [a]		43.4 J	53	43	ug/kg	SW846 8082A
FA88588-98	**SAEE-SB0362-000.5-20210831**					
Aroclor 1260 [a]		76.2	51	41	ug/kg	SW846 8082A
FA88588-99	**SAEE-SB0362-001.0-20210831**					
Aroclor 1260 [a]		462	58	46	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88588-100	**SAEE-SB0362-002.0-20210831**					
No hits reported in this sample.						
FA88588-101	**SAEE-SB0362-003.0-20210831**					
No hits reported in this sample.						
FA88588-102	**SAEE-SB0356-000.5-20210831**					
Aroclor 1260 [a]		6420	280	230	ug/kg	SW846 8082A
FA88588-103	**SAEE-SB0356-001.0-20210831**					
Aroclor 1260 [a]		4860	330	270	ug/kg	SW846 8082A
FA88588-104	**SAEE-SB0356-002.0-20210831**					
Aroclor 1260 [a]		10700	280	230	ug/kg	SW846 8082A
FA88588-105	**SAEE-SB0356-003.0-20210831**					
Aroclor 1260 [a]		10100	290	230	ug/kg	SW846 8082A

(a) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ. More than 40 % RPD for detected concentrations between the two GC columns.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0339-000.5-20210831		
Lab Sample ID:	FA88588-1	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	65.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470932.D	1	09/18/21 02:37	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	59 U	74	59	34	ug/kg	
11104-28-2	Aroclor 1221	59 U	74	59	46	ug/kg	
11141-16-5	Aroclor 1232	59 U	74	59	47	ug/kg	
53469-21-9	Aroclor 1242	59 U	74	59	30	ug/kg	
12672-29-6	Aroclor 1248	70 U	74	70	66	ug/kg	
11097-69-1	Aroclor 1254	1140	74	59	40	ug/kg	
11096-82-5	Aroclor 1260	59 U	74	59	32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		24-152%
877-09-8	Tetrachloro-m-xylene	104%		24-152%
2051-24-3	Decachlorobiphenyl	126%		10-172%
2051-24-3	Decachlorobiphenyl	158%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0339-001.0-20210831		
Lab Sample ID:	FA88588-2	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470921.D	1	09/17/21 23:27	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	220	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		24-152%
877-09-8	Tetrachloro-m-xylene	129%		24-152%
2051-24-3	Decachlorobiphenyl	133%		10-172%
2051-24-3	Decachlorobiphenyl	160%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0339-002.0-20210831		
Lab Sample ID:	FA88588-3	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470922.D	1	09/17/21 23:44	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	52 U	65	52	30	ug/kg	
11104-28-2	Aroclor 1221	52 U	65	52	40	ug/kg	
11141-16-5	Aroclor 1232	52 U	65	52	41	ug/kg	
53469-21-9	Aroclor 1242	52 U	65	52	27	ug/kg	
12672-29-6	Aroclor 1248	61 U	65	61	58	ug/kg	
11097-69-1	Aroclor 1254	491	65	52	35	ug/kg	
11096-82-5	Aroclor 1260	52 U	65	52	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		24-152%
877-09-8	Tetrachloro-m-xylene	97%		24-152%
2051-24-3	Decachlorobiphenyl	106%		10-172%
2051-24-3	Decachlorobiphenyl	161%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0339-003.0-20210831		
Lab Sample ID:	FA88588-4	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110132.D	1	09/11/21 09:21	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	55 U	68	55	32	ug/kg	
11104-28-2	Aroclor 1221	55 U	68	55	42	ug/kg	
11141-16-5	Aroclor 1232	55 U	68	55	44	ug/kg	
53469-21-9	Aroclor 1242	55 U	68	55	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	61	ug/kg	
11097-69-1	Aroclor 1254	55 U	68	55	37	ug/kg	
11096-82-5	Aroclor 1260	55 U	68	55	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	89%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0340-000.5-20210831		
Lab Sample ID:	FA88588-5	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470923.D	1	09/18/21 00:01	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	115	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	71%		24-152%
2051-24-3	Decachlorobiphenyl	114%		10-172%
2051-24-3	Decachlorobiphenyl	137%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0340-001.0-20210831		
Lab Sample ID:	FA88588-6	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110134.D	1	09/11/21 10:27	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	51 U	64	51	35	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	102%		10-172%
2051-24-3	Decachlorobiphenyl	92%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0340-002.0-20210831		
Lab Sample ID:	FA88588-7	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	69.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110135.D	1	09/11/21 11:00	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	35	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	83%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0340-003.0-20210831		
Lab Sample ID:	FA88588-8	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	69.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110136.D	1	09/11/21 11:34	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	54 U	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	101%		10-172%
2051-24-3	Decachlorobiphenyl	84%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0341-000.5-20210831
Lab Sample ID: FA88588-9
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 08/31/21
Date Received: 09/01/21
Percent Solids: 74.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470924.D	1	09/18/21 00:19	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	330	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		24-152%
877-09-8	Tetrachloro-m-xylene	105%		24-152%
2051-24-3	Decachlorobiphenyl	117%		10-172%
2051-24-3	Decachlorobiphenyl	128%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0341-001.0-20210831		
Lab Sample ID:	FA88588-10	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110138.D	1	09/11/21 12:40	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		24-152%
877-09-8	Tetrachloro-m-xylene	107%		24-152%
2051-24-3	Decachlorobiphenyl	116%		10-172%
2051-24-3	Decachlorobiphenyl	108%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0341-002.0-20210831		
Lab Sample ID:	FA88588-11	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110143.D	1	09/11/21 15:26	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	87%		10-172%
2051-24-3	Decachlorobiphenyl	76%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0341-003.0-20210831		
Lab Sample ID:	FA88588-12	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	68.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110144.D	1	09/11/21 15:59	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	58 U	73	58	34	ug/kg	
11104-28-2	Aroclor 1221	58 U	73	58	45	ug/kg	
11141-16-5	Aroclor 1232	58 U	73	58	47	ug/kg	
53469-21-9	Aroclor 1242	58 U	73	58	30	ug/kg	
12672-29-6	Aroclor 1248	69 U	73	69	65	ug/kg	
11097-69-1	Aroclor 1254	58 U	73	58	39	ug/kg	
11096-82-5	Aroclor 1260	58 U	73	58	31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		24-152%
877-09-8	Tetrachloro-m-xylene	84%		24-152%
2051-24-3	Decachlorobiphenyl	88%		10-172%
2051-24-3	Decachlorobiphenyl	73%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0342-000.5-20210831		
Lab Sample ID:	FA88588-13	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470925.D	1	09/18/21 00:36	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	61	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	61	48	38	ug/kg	
11141-16-5	Aroclor 1232	48 U	61	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	61	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	249	61	48	33	ug/kg	
11096-82-5	Aroclor 1260	48 U	61	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		24-152%
877-09-8	Tetrachloro-m-xylene	87%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	136%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0342-001.0-20210831		
Lab Sample ID:	FA88588-14	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110146.D	1	09/11/21 17:05	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	63	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	63	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	63	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	63	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	63	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	63	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		24-152%
877-09-8	Tetrachloro-m-xylene	105%		24-152%
2051-24-3	Decachlorobiphenyl	111%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0342-002.0-20210831		
Lab Sample ID:	FA88588-15	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	67.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470956.D	1	09/20/21 11:06	ANJ	09/15/21 17:40	N:OP35412	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	57 U	71	57	33	ug/kg	
11104-28-2	Aroclor 1221	57 U	71	57	44	ug/kg	
11141-16-5	Aroclor 1232	57 U	71	57	45	ug/kg	
53469-21-9	Aroclor 1242	57 U	71	57	29	ug/kg	
12672-29-6	Aroclor 1248	67 U	71	67	63	ug/kg	
11097-69-1	Aroclor 1254	57 U	71	57	38	ug/kg	
11096-82-5	Aroclor 1260	57 U	71	57	30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	136% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	136% [b]		24-152%
2051-24-3	Decachlorobiphenyl	145%		10-172%
2051-24-3	Decachlorobiphenyl	146%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0342-003.0-20210831		
Lab Sample ID:	FA88588-16	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	65.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110148.D	1	09/11/21 18:11	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	59 U	74	59	35	ug/kg	
11104-28-2	Aroclor 1221	59 U	74	59	46	ug/kg	
11141-16-5	Aroclor 1232	59 U	74	59	47	ug/kg	
53469-21-9	Aroclor 1242	59 U	74	59	30	ug/kg	
12672-29-6	Aroclor 1248	70 U	74	70	66	ug/kg	
11097-69-1	Aroclor 1254	59 U	74	59	40	ug/kg	
11096-82-5	Aroclor 1260	59 U	74	59	32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	91%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	74%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0343-000.5-20210831		
Lab Sample ID:	FA88588-17	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	67.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110149.D	1	09/11/21 18:45	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	32	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	61	ug/kg	
11097-69-1	Aroclor 1254	54 U	68	54	37	ug/kg	
11096-82-5	Aroclor 1260	54 U	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	73%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0343-001.0-20210831		
Lab Sample ID:	FA88588-18	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	66.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110154.D	1	09/11/21 21:30	ANJ	09/09/21 17:30	N:OP35300	N:G5G2784
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	60 U	75	60	35	ug/kg	
11104-28-2	Aroclor 1221	60 U	75	60	46	ug/kg	
11141-16-5	Aroclor 1232	60 U	75	60	48	ug/kg	
53469-21-9	Aroclor 1242	60 U	75	60	31	ug/kg	
12672-29-6	Aroclor 1248	70 U	75	70	67	ug/kg	
11097-69-1	Aroclor 1254	60 U	75	60	40	ug/kg	
11096-82-5	Aroclor 1260	60 U	75	60	32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	86%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0343-002.0-20210831		
Lab Sample ID:	FA88588-19	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470959.D	1	09/20/21 11:58	ANJ	09/15/21 17:40	N:OP35412	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	35	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	94%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0344-000.5-20210831		
Lab Sample ID:	FA88588-20	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470926.D	1	09/18/21 00:53	ANJ	09/09/21 17:30	N:OP35300	N:GXX7582
Run #2							

	Initial Weight	Final Volume
Run #1	11.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	817	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	104%		24-152%
2051-24-3	Decachlorobiphenyl	117%		10-172%
2051-24-3	Decachlorobiphenyl	138%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0344-001.0-20210831		
Lab Sample ID:	FA88588-21	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471047.D	1	09/21/21 15:32	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	89.2	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		24-152%
877-09-8	Tetrachloro-m-xylene	101%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	118%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0344-002.0-20210831		
Lab Sample ID:	FA88588-22	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110347.D	1	09/20/21 15:23	ANJ	09/14/21 16:55	N:OP35301	N:G5G2794
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	54 U	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		24-152%
877-09-8	Tetrachloro-m-xylene	103%		24-152%
2051-24-3	Decachlorobiphenyl	120%		10-172%
2051-24-3	Decachlorobiphenyl	119%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0345-000.5-20210831		
Lab Sample ID:	FA88588-23	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110348.D	1	09/20/21 15:56	ANJ	09/14/21 16:55	N:OP35301	N:G5G2794
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		24-152%
877-09-8	Tetrachloro-m-xylene	108%		24-152%
2051-24-3	Decachlorobiphenyl	88%		10-172%
2051-24-3	Decachlorobiphenyl	116%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0345-001.0-20210831		
Lab Sample ID:	FA88588-24	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	69.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471280.D	1	09/25/21 14:28	ANJ	09/14/21 16:55	N:OP35301	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	55 U	69	55	32	ug/kg	
11104-28-2	Aroclor 1221	55 U	69	55	43	ug/kg	
11141-16-5	Aroclor 1232	55 U	69	55	44	ug/kg	
53469-21-9	Aroclor 1242	55 U	69	55	28	ug/kg	
12672-29-6	Aroclor 1248	65 U	69	65	61	ug/kg	
11097-69-1	Aroclor 1254 [b]	46.5	69	55	37	ug/kg	J
11096-82-5	Aroclor 1260	55 U	69	55	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	125%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0345-002.0-20210831		
Lab Sample ID:	FA88588-25	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471164.D	1	09/23/21 14:41	ANJ	09/14/21 16:55	N:OP35301	N:GXX7587
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	41	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	27	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	69.8	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	98%		24-152%
2051-24-3	Decachlorobiphenyl	100%		10-172%
2051-24-3	Decachlorobiphenyl	95%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0345-003.0-20210831		
Lab Sample ID:	FA88588-26	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470988.D	1	09/20/21 20:49	ANJ	09/14/21 16:55	N:OP35301	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	456	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	133%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	112%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0346-000.5-20210831		
Lab Sample ID:	FA88588-27	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470989.D	1	09/20/21 21:06	ANJ	09/14/21 16:55	N:OP35301	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	62	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	62	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	62	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	62	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	62	58	55	ug/kg	
11097-69-1	Aroclor 1254	74.6	62	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	62	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		24-152%
877-09-8	Tetrachloro-m-xylene	95%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	105%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0346-001.0-20210831		
Lab Sample ID:	FA88588-28	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	70.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471165.D	1	09/23/21 14:58	ANJ	09/14/21 16:55	N:OP35301	N:GXX7587
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	55 U	69	55	32	ug/kg	
11104-28-2	Aroclor 1221	55 U	69	55	43	ug/kg	
11141-16-5	Aroclor 1232	55 U	69	55	44	ug/kg	
53469-21-9	Aroclor 1242	55 U	69	55	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	69	64	61	ug/kg	
11097-69-1	Aroclor 1254	49.2	69	55	37	ug/kg	J
11096-82-5	Aroclor 1260	55 U	69	55	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	93%		10-172%
2051-24-3	Decachlorobiphenyl	94%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0346-002.0-20210831		
Lab Sample ID:	FA88588-29	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470990.D	1	09/20/21 21:23	ANJ	09/14/21 16:55	N:OP35301	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	83.2	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	80%		10-172%
2051-24-3	Decachlorobiphenyl	89%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0346-003.0-20210831		
Lab Sample ID:	FA88588-30	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470970.D	1	09/20/21 15:10	ANJ	09/14/21 16:55	N:OP35301	N:GXX7583
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	38	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		24-152%
877-09-8	Tetrachloro-m-xylene	106%		24-152%
2051-24-3	Decachlorobiphenyl	110%		10-172%
2051-24-3	Decachlorobiphenyl	112%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0346-004.0-20210831
Lab Sample ID: FA88588-31
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 08/31/21
Date Received: 09/01/21
Percent Solids: 74.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472577.D	1	10/18/21 15:18	ANJ	10/14/21 19:45	N:OP35559	N:GXX7619
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	36	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		24-152%
877-09-8	Tetrachloro-m-xylene	123%		24-152%
2051-24-3	Decachlorobiphenyl	132%		10-172%
2051-24-3	Decachlorobiphenyl	123%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: SAEE-SB0347-000.5-20210831
Lab Sample ID: FA88588-32
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 08/31/21
Date Received: 09/01/21
Percent Solids: 73.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471050.D	1	09/21/21 16:24	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	28	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	37	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	38	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	59	56	53	ug/kg	
11097-69-1	Aroclor 1254	139	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		24-152%
877-09-8	Tetrachloro-m-xylene	116%		24-152%
2051-24-3	Decachlorobiphenyl	118%		10-172%
2051-24-3	Decachlorobiphenyl	127%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0347-001.0-20210831		
Lab Sample ID:	FA88588-33	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471051.D	1	09/21/21 16:41	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	32	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	60	ug/kg	
11097-69-1	Aroclor 1254	260	68	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		24-152%
877-09-8	Tetrachloro-m-xylene	114%		24-152%
2051-24-3	Decachlorobiphenyl	118%		10-172%
2051-24-3	Decachlorobiphenyl	134%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0347-002.0-20210831		
Lab Sample ID:	FA88588-34	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471052.D	1	09/21/21 16:58	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	365	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	99%		24-152%
2051-24-3	Decachlorobiphenyl	106%		10-172%
2051-24-3	Decachlorobiphenyl	122%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0347-003.0-20210831		
Lab Sample ID:	FA88588-35	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110315.D	1	09/18/21 06:30	ANJ	09/14/21 16:55	N:OP35301	N:G5G2793
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	61	58	55	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	93%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0347-004.0-20210831		
Lab Sample ID:	FA88588-36	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110316.D	1	09/18/21 07:04	ANJ	09/14/21 16:55	N:OP35301	N:G5G2793
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	96%		24-152%
2051-24-3	Decachlorobiphenyl	104%		10-172%
2051-24-3	Decachlorobiphenyl	105%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0348-000.5-20210831		
Lab Sample ID:	FA88588-37	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G110317.D	1	09/18/21 07:38	ANJ	09/14/21 16:55	N:OP35301	N:G5G2793
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	99%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	104%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0348-001.0-20210831		
Lab Sample ID:	FA88588-38	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471162.D	1	09/23/21 14:07	ANJ	09/14/21 16:55	N:OP35301	N:GXX7587
Run #2 [a]	XX2472596.D	5	10/19/21 00:16	ANJ	09/14/21 16:55	N:OP35301	N:GXX7620

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2	10.3 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	4140 [b]	260	210	140	ug/kg	
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%	136% [c]	24-152%
877-09-8	Tetrachloro-m-xylene	103%	138% [c]	24-152%
2051-24-3	Decachlorobiphenyl	107%	143%	10-172%
2051-24-3	Decachlorobiphenyl	123%	183% [d]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside program requirements due to matrix interference.
(d) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0348-002.0-20210831		
Lab Sample ID:	FA88588-39	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471053.D	1	09/21/21 17:15	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	1170	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	100%		10-172%
2051-24-3	Decachlorobiphenyl	121%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0348-003.0-20210831		
Lab Sample ID:	FA88588-40	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471054.D	1	09/21/21 17:33	ANJ	09/14/21 16:55	N:OP35301	N:GXX7584
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	582	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	104%		10-172%
2051-24-3	Decachlorobiphenyl	130%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0348-004.0-20210831		
Lab Sample ID:	FA88588-41	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472580.D	1	10/18/21 16:10	ANJ	10/14/21 19:45	N:OP35559	N:GXX7619
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	28	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	37	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	38	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	59	56	53	ug/kg	
11097-69-1	Aroclor 1254	189	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	102%		24-152%
2051-24-3	Decachlorobiphenyl	104%		10-172%
2051-24-3	Decachlorobiphenyl	99%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0349-000.5-20210831		
Lab Sample ID:	FA88588-42	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	69.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472581.D	1	10/18/21 16:27	ANJ	10/14/21 19:45	N:OP35559	N:GXX7619
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	27	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	545	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		24-152%
877-09-8	Tetrachloro-m-xylene	95%		24-152%
2051-24-3	Decachlorobiphenyl	122%		10-172%
2051-24-3	Decachlorobiphenyl	126%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0349-001.0-20210831		
Lab Sample ID:	FA88588-43	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472582.D	1	10/18/21 16:45	ANJ	10/14/21 19:45	N:OP35559	N:GXX7619
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	455	64	51	34	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		24-152%
877-09-8	Tetrachloro-m-xylene	94%		24-152%
2051-24-3	Decachlorobiphenyl	100%		10-172%
2051-24-3	Decachlorobiphenyl	99%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0349-002.0-20210831		
Lab Sample ID:	FA88588-44	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472583.D	1	10/18/21 17:02	ANJ	10/14/21 19:45	N:OP35559	N:GXX7619
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	36	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		24-152%
877-09-8	Tetrachloro-m-xylene	110%		24-152%
2051-24-3	Decachlorobiphenyl	118%		10-172%
2051-24-3	Decachlorobiphenyl	106%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0349-003.0-20210831		
Lab Sample ID:	FA88588-45	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472697.D	1	10/20/21 06:22	ANJ	10/14/21 19:45	N:OP35559	N:GXX7621
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	67.3	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	114%		24-152%
877-09-8	Tetrachloro-m-xylene	111%		24-152%
2051-24-3	Decachlorobiphenyl	140%		10-172%
2051-24-3	Decachlorobiphenyl	137%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0349-004.0-20210831		
Lab Sample ID:	FA88588-46	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472603.D	1	10/19/21 02:17	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	25	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	55	51	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	29	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	127%		24-152%
877-09-8	Tetrachloro-m-xylene	136% [b]		24-152%
2051-24-3	Decachlorobiphenyl	160%		10-172%
2051-24-3	Decachlorobiphenyl	152%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0350-000.5-20210831		
Lab Sample ID:	FA88588-47	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472604.D	1	10/19/21 02:34	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	12.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	611	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	103%		24-152%
2051-24-3	Decachlorobiphenyl	112%		10-172%
2051-24-3	Decachlorobiphenyl	139%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0350-001.0-20210831
Lab Sample ID: FA88588-48
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 08/31/21
Date Received: 09/01/21
Percent Solids: 73.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472605.D	1	10/19/21 02:51	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	68	63	60	ug/kg	
11097-69-1	Aroclor 1254	1100	68	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	91%		10-172%
2051-24-3	Decachlorobiphenyl	135%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0350-002.0-20210831		
Lab Sample ID:	FA88588-49	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472606.D	1	10/19/21 03:09	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	406	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	105%		24-152%
2051-24-3	Decachlorobiphenyl	122%		10-172%
2051-24-3	Decachlorobiphenyl	147%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0350-003.0-20210831		
Lab Sample ID:	FA88588-50	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472607.D	1	10/19/21 03:26	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	51 U	64	51	34	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		24-152%
877-09-8	Tetrachloro-m-xylene	118%		24-152%
2051-24-3	Decachlorobiphenyl	132%		10-172%
2051-24-3	Decachlorobiphenyl	131%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0350-004.0-20210831		
Lab Sample ID:	FA88588-51	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472608.D	1	10/19/21 03:43	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	124%		24-152%
877-09-8	Tetrachloro-m-xylene	131% [b]		24-152%
2051-24-3	Decachlorobiphenyl	142%		10-172%
2051-24-3	Decachlorobiphenyl	143%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0296-004.0-20210831		
Lab Sample ID:	FA88588-52	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472609.D	1	10/19/21 04:01	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	571	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		24-152%
877-09-8	Tetrachloro-m-xylene	127%		24-152%
2051-24-3	Decachlorobiphenyl	130%		10-172%
2051-24-3	Decachlorobiphenyl	137%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0352-000.5-20210831		
Lab Sample ID:	FA88588-53	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472617.D	1	10/19/21 06:19	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	229	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		24-152%
877-09-8	Tetrachloro-m-xylene	107%		24-152%
2051-24-3	Decachlorobiphenyl	134%		10-172%
2051-24-3	Decachlorobiphenyl	121%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0352-001.0-20210831		
Lab Sample ID:	FA88588-54	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472618.D	1	10/19/21 06:36	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2 [a]	XX2472698.D	5	10/20/21 06:40	ANJ	10/14/21 19:45	N:OP35559	N:GXX7621

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2	10.9 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	3290 [b]	280	220	150	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	145% [c]	207% [d]	24-152%
877-09-8	Tetrachloro-m-xylene	159% [d]	183% [d]	24-152%
2051-24-3	Decachlorobiphenyl	162%	187% [d]	10-172%
2051-24-3	Decachlorobiphenyl	180% [d]	168%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside program requirements due to matrix interference.
(d) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0352-002.0-20210831		
Lab Sample ID:	FA88588-55	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472619.D	1	10/19/21 06:53	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2 [a]	XX2472699.D	5	10/20/21 06:57	ANJ	10/14/21 19:45	N:OP35559	N:GXX7621

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2	10.0 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	63	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	63	51	39	ug/kg	
11141-16-5	Aroclor 1232	51 U	63	51	40	ug/kg	
53469-21-9	Aroclor 1242	51 U	63	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	63	60	57	ug/kg	
11097-69-1	Aroclor 1254	8800 [b]	320	250	170	ug/kg	
11096-82-5	Aroclor 1260	51 U	63	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%	149% [c]	24-152%
877-09-8	Tetrachloro-m-xylene	112%	128%	24-152%
2051-24-3	Decachlorobiphenyl	108%	131%	10-172%
2051-24-3	Decachlorobiphenyl	126%	138%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside program requirements due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0352-003.0-20210831		
Lab Sample ID:	FA88588-56	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472592.D	1	10/18/21 23:07	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	60	57	54	ug/kg	
11097-69-1	Aroclor 1254	1050	60	48	33	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	101%		24-152%
2051-24-3	Decachlorobiphenyl	114%		10-172%
2051-24-3	Decachlorobiphenyl	113%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0352-004.0-20210831		
Lab Sample ID:	FA88588-57	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472593.D	1	10/18/21 23:24	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	63	51	29	ug/kg	
11104-28-2	Aroclor 1221	51 U	63	51	39	ug/kg	
11141-16-5	Aroclor 1232	51 U	63	51	40	ug/kg	
53469-21-9	Aroclor 1242	51 U	63	51	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	195	63	51	34	ug/kg	
11096-82-5	Aroclor 1260	51 U	63	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		24-152%
877-09-8	Tetrachloro-m-xylene	105%		24-152%
2051-24-3	Decachlorobiphenyl	110%		10-172%
2051-24-3	Decachlorobiphenyl	126%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0353-000.5-20210831		
Lab Sample ID:	FA88588-58	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472594.D	1	10/18/21 23:41	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	1380	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	126%		24-152%
877-09-8	Tetrachloro-m-xylene	136% [b]		24-152%
2051-24-3	Decachlorobiphenyl	151%		10-172%
2051-24-3	Decachlorobiphenyl	143%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0353-001.0-20210831		
Lab Sample ID:	FA88588-59	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472595.D	1	10/18/21 23:58	ANJ	10/14/21 19:45	N:OP35559	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	923	52	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	104%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	125%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0353-002.0-20210831		
Lab Sample ID:	FA88588-60	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472628.D	1	10/19/21 09:29	ANJ	10/15/21 16:30	N:OP35560	N:GXX7620
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	89.3	64	51	35	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	126%		24-152%
877-09-8	Tetrachloro-m-xylene	131% [b]		24-152%
2051-24-3	Decachlorobiphenyl	145%		10-172%
2051-24-3	Decachlorobiphenyl	146%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0353-003.0-20210831		
Lab Sample ID:	FA88588-61	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471242.D	1	09/24/21 21:42	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	22	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	29	ug/kg	
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	91%		24-152%
2051-24-3	Decachlorobiphenyl	103%		10-172%
2051-24-3	Decachlorobiphenyl	104%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0353-004.0-20210831		
Lab Sample ID:	FA88588-62	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471245.D	1	09/24/21 22:34	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	43.8	57	46	31	ug/kg	J
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-152%
877-09-8	Tetrachloro-m-xylene	98%		24-152%
2051-24-3	Decachlorobiphenyl	108%		10-172%
2051-24-3	Decachlorobiphenyl	109%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0354-000.5-20210831		
Lab Sample ID:	FA88588-63	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471246.D	1	09/24/21 22:51	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	36 U	45	36	21	ug/kg	
11104-28-2	Aroclor 1221	36 U	45	36	28	ug/kg	
11141-16-5	Aroclor 1232	36 U	45	36	28	ug/kg	
53469-21-9	Aroclor 1242	36 U	45	36	18	ug/kg	
12672-29-6	Aroclor 1248	42 U	45	42	40	ug/kg	
11097-69-1	Aroclor 1254	72.6	45	36	24	ug/kg	
11096-82-5	Aroclor 1260	36 U	45	36	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	64%		24-152%
877-09-8	Tetrachloro-m-xylene	69%		24-152%
2051-24-3	Decachlorobiphenyl	75%		10-172%
2051-24-3	Decachlorobiphenyl	85%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0354-001.0-20210831		
Lab Sample ID:	FA88588-64	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471247.D	1	09/24/21 23:09	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	47	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	47	38	29	ug/kg	
11141-16-5	Aroclor 1232	38 U	47	38	30	ug/kg	
53469-21-9	Aroclor 1242	38 U	47	38	19	ug/kg	
12672-29-6	Aroclor 1248	45 U	47	45	42	ug/kg	
11097-69-1	Aroclor 1254	60.6	47	38	26	ug/kg	
11096-82-5	Aroclor 1260	38 U	47	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	83%		24-152%
2051-24-3	Decachlorobiphenyl	87%		10-172%
2051-24-3	Decachlorobiphenyl	108%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0354-002.0-20210831		
Lab Sample ID:	FA88588-65	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471248.D	1	09/24/21 23:26	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	47	ug/kg	
11097-69-1	Aroclor 1254	93.8	52	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	76%		24-152%
2051-24-3	Decachlorobiphenyl	81%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0354-003.0-20210831		
Lab Sample ID:	FA88588-66	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471254.D	1	09/25/21 01:10	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	37 U	46	37	21	ug/kg	
11104-28-2	Aroclor 1221	37 U	46	37	28	ug/kg	
11141-16-5	Aroclor 1232	37 U	46	37	29	ug/kg	
53469-21-9	Aroclor 1242	37 U	46	37	19	ug/kg	
12672-29-6	Aroclor 1248	43 U	46	43	41	ug/kg	
11097-69-1	Aroclor 1254	208	46	37	25	ug/kg	
11096-82-5	Aroclor 1260	497	46	37	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-152%
877-09-8	Tetrachloro-m-xylene	83%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	123%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0354-004.0-20210831		
Lab Sample ID:	FA88588-67	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471255.D	1	09/25/21 01:27	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	210	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	92%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	132%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0355-000.5-20210831		
Lab Sample ID:	FA88588-68	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471256.D	1	09/25/21 01:45	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	2580	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		24-152%
877-09-8	Tetrachloro-m-xylene	66%		24-152%
2051-24-3	Decachlorobiphenyl	76%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0355-001.0-20210831		
Lab Sample ID:	FA88588-69	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471257.D	1	09/25/21 02:02	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	63	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	63	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	63	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	63	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	63	50	34	ug/kg	
11096-82-5	Aroclor 1260	488	63	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	105%		10-172%
2051-24-3	Decachlorobiphenyl	130%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0355-002.0-20210831		
Lab Sample ID:	FA88588-70	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471258.D	1	09/25/21 02:19	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	25	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	55	51	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	29	ug/kg	
11096-82-5	Aroclor 1260	493	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	107%		10-172%
2051-24-3	Decachlorobiphenyl	109%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0355-003.0-20210831		
Lab Sample ID:	FA88588-71	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471259.D	1	09/25/21 08:26	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	61	58	55	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		24-152%
877-09-8	Tetrachloro-m-xylene	71%		24-152%
2051-24-3	Decachlorobiphenyl	77%		10-172%
2051-24-3	Decachlorobiphenyl	82%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0355-004.0-20210831		
Lab Sample ID:	FA88588-72	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471260.D	1	09/25/21 08:44	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	46.0	60	48	26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		24-152%
877-09-8	Tetrachloro-m-xylene	83%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	92%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0357-000.5-20210831		
Lab Sample ID:	FA88588-73	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471266.D	1	09/25/21 10:27	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	63	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	63	51	39	ug/kg	
11141-16-5	Aroclor 1232	51 U	63	51	40	ug/kg	
53469-21-9	Aroclor 1242	51 U	63	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	63	60	57	ug/kg	
11097-69-1	Aroclor 1254	51 U	63	51	34	ug/kg	
11096-82-5	Aroclor 1260	1450	63	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	71%		24-152%
2051-24-3	Decachlorobiphenyl	88%		10-172%
2051-24-3	Decachlorobiphenyl	99%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0357-001.0-20210831		
Lab Sample ID:	FA88588-74	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471267.D	1	09/25/21 10:44	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	32	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	61	ug/kg	
11097-69-1	Aroclor 1254	54 U	68	54	37	ug/kg	
11096-82-5	Aroclor 1260	467	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		24-152%
877-09-8	Tetrachloro-m-xylene	63%		24-152%
2051-24-3	Decachlorobiphenyl	70%		10-172%
2051-24-3	Decachlorobiphenyl	72%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0357-002.0-20210831		
Lab Sample ID:	FA88588-75	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471268.D	1	09/25/21 11:01	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	38	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	60	57	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	33	ug/kg	
11096-82-5	Aroclor 1260	705	60	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		24-152%
877-09-8	Tetrachloro-m-xylene	90%		24-152%
2051-24-3	Decachlorobiphenyl	103%		10-172%
2051-24-3	Decachlorobiphenyl	110%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0357-003.0-20210831		
Lab Sample ID:	FA88588-76	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471269.D	1	09/25/21 11:19	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	85.3	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		24-152%
877-09-8	Tetrachloro-m-xylene	105%		24-152%
2051-24-3	Decachlorobiphenyl	125%		10-172%
2051-24-3	Decachlorobiphenyl	133%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0357-004.0-20210831		
Lab Sample ID:	FA88588-77	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471270.D	1	09/25/21 11:36	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		24-152%
877-09-8	Tetrachloro-m-xylene	65%		24-152%
2051-24-3	Decachlorobiphenyl	66%		10-172%
2051-24-3	Decachlorobiphenyl	70%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0358-000.5-20210831		
Lab Sample ID:	FA88588-78	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471271.D	1	09/25/21 11:53	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2 [a]	XX2471331.D	10	09/27/21 00:59	ANJ	09/22/21 17:40	N:OP35303	N:GXX7591

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2	11.2 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	10300 [b]	600	480	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%	93%	24-152%
877-09-8	Tetrachloro-m-xylene	72%	90%	24-152%
2051-24-3	Decachlorobiphenyl	85%	325% [c]	10-172%
2051-24-3	Decachlorobiphenyl	114%	294% [c]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0358-001.0-20210831		
Lab Sample ID:	FA88588-79	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471272.D	1	09/25/21 12:10	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	44	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	1130	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	89%		10-172%
2051-24-3	Decachlorobiphenyl	99%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0358-002.0-20210831		
Lab Sample ID:	FA88588-80	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2471278.D	1	09/25/21 13:54	ANJ	09/22/21 17:40	N:OP35303	N:GXX7589
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	61	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	61	48	38	ug/kg	
11141-16-5	Aroclor 1232	48 U	61	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	61	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	61	48	33	ug/kg	
11096-82-5	Aroclor 1260	206	61	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	81%		24-152%
2051-24-3	Decachlorobiphenyl	94%		10-172%
2051-24-3	Decachlorobiphenyl	91%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0358-003.0-20210831		
Lab Sample ID:	FA88588-81	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472356.D	1	10/14/21 06:48	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	539	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	45%		24-152%
877-09-8	Tetrachloro-m-xylene	46%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	93%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0358-004.0-20210831		
Lab Sample ID:	FA88588-82	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472359.D	1	10/14/21 07:40	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	397	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	45%		24-152%
877-09-8	Tetrachloro-m-xylene	45%		24-152%
2051-24-3	Decachlorobiphenyl	73%		10-172%
2051-24-3	Decachlorobiphenyl	70%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0359-000.5-20210831		
Lab Sample ID:	FA88588-83	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472360.D	1	10/14/21 07:57	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2 [a]	XX2472597.D	5	10/19/21 00:33	ANJ	10/12/21 18:45	N:OP35304	N:GXX7620

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2	11.0 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	43	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	4570 [b]	240	190	100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%	93%	24-152%
877-09-8	Tetrachloro-m-xylene	81%	91%	24-152%
2051-24-3	Decachlorobiphenyl	100%	109%	10-172%
2051-24-3	Decachlorobiphenyl	97%	137%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0359-001.0-20210831		
Lab Sample ID:	FA88588-84	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472361.D	1	10/14/21 08:15	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	37 U	47	37	22	ug/kg	
11104-28-2	Aroclor 1221	37 U	47	37	29	ug/kg	
11141-16-5	Aroclor 1232	37 U	47	37	30	ug/kg	
53469-21-9	Aroclor 1242	37 U	47	37	19	ug/kg	
12672-29-6	Aroclor 1248	44 U	47	44	42	ug/kg	
11097-69-1	Aroclor 1254	37 U	47	37	25	ug/kg	
11096-82-5	Aroclor 1260	1110	47	37	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	35% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	32% [b]		24-152%
2051-24-3	Decachlorobiphenyl	30%		10-172%
2051-24-3	Decachlorobiphenyl	28%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0359-002.0-20210831		
Lab Sample ID:	FA88588-85	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472362.D	1	10/14/21 08:32	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	31	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	27	ug/kg	
11096-82-5	Aroclor 1260	72.6	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	40% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	36% [b]		24-152%
2051-24-3	Decachlorobiphenyl	56%		10-172%
2051-24-3	Decachlorobiphenyl	54%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0359-003.0-20210831		
Lab Sample ID:	FA88588-86	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472367.D	1	10/14/21 11:45	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	56	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	56	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	56	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	56	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	56	52	50	ug/kg	
11097-69-1	Aroclor 1254	44 U	56	44	30	ug/kg	
11096-82-5	Aroclor 1260	54.8	56	44	24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	31% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	32%		24-152%
2051-24-3	Decachlorobiphenyl	65%		10-172%
2051-24-3	Decachlorobiphenyl	65%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0359-004.0-20210831		
Lab Sample ID:	FA88588-87	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472368.D	1	10/14/21 12:03	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	61.5	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	88%		24-152%
2051-24-3	Decachlorobiphenyl	96%		10-172%
2051-24-3	Decachlorobiphenyl	97%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-000.5-20210831		
Lab Sample ID:	FA88588-88	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472369.D	1	10/14/21 12:20	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	42 U	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	721	53	42	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		24-152%
877-09-8	Tetrachloro-m-xylene	86%		24-152%
2051-24-3	Decachlorobiphenyl	109%		10-172%
2051-24-3	Decachlorobiphenyl	96%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-001.0-20210831		
Lab Sample ID:	FA88588-89	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472370.D	1	10/14/21 12:37	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	464	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	37% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	34% [b]		24-152%
2051-24-3	Decachlorobiphenyl	38%		10-172%
2051-24-3	Decachlorobiphenyl	48%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in houes control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-002.0-20210831		
Lab Sample ID:	FA88588-90	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472371.D	1	10/14/21 12:54	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	1000	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		24-152%
877-09-8	Tetrachloro-m-xylene	63%		24-152%
2051-24-3	Decachlorobiphenyl	83%		10-172%
2051-24-3	Decachlorobiphenyl	92%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-003.0-20210831		
Lab Sample ID:	FA88588-91	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472372.D	1	10/14/21 13:12	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	117	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-152%
877-09-8	Tetrachloro-m-xylene	93%		24-152%
2051-24-3	Decachlorobiphenyl	98%		10-172%
2051-24-3	Decachlorobiphenyl	106%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-004.0-20210831		
Lab Sample ID:	FA88588-92	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472373.D	1	10/14/21 13:29	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	31.2	58	46	25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	40% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	38% [b]		24-152%
2051-24-3	Decachlorobiphenyl	39%		10-172%
2051-24-3	Decachlorobiphenyl	36%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0361-000.5-20210831		
Lab Sample ID:	FA88588-93	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472378.D	1	10/14/21 15:13	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	61	58	55	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	295	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	25% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	25% [b]		24-152%
2051-24-3	Decachlorobiphenyl	42%		10-172%
2051-24-3	Decachlorobiphenyl	41%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0361-001.0-20210831		
Lab Sample ID:	FA88588-94	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472379.D	1	10/14/21 15:30	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	302	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	48%		24-152%
877-09-8	Tetrachloro-m-xylene	51%		24-152%
2051-24-3	Decachlorobiphenyl	96%		10-172%
2051-24-3	Decachlorobiphenyl	99%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0361-002.0-20210831		
Lab Sample ID:	FA88588-95	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472380.D	1	10/14/21 15:47	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	166	60	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	45%		24-152%
877-09-8	Tetrachloro-m-xylene	47%		24-152%
2051-24-3	Decachlorobiphenyl	72%		10-172%
2051-24-3	Decachlorobiphenyl	81%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0361-003.0-20210831		
Lab Sample ID:	FA88588-96	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472381.D	1	10/14/21 16:05	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	77.5	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-152%
877-09-8	Tetrachloro-m-xylene	77%		24-152%
2051-24-3	Decachlorobiphenyl	76%		10-172%
2051-24-3	Decachlorobiphenyl	81%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0361-004.0-20210831		
Lab Sample ID:	FA88588-97	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472382.D	1	10/14/21 16:22	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43.4	53	43	23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	43% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	45%		24-152%
2051-24-3	Decachlorobiphenyl	60%		10-172%
2051-24-3	Decachlorobiphenyl	61%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-000.5-20210831		
Lab Sample ID:	FA88588-98	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472383.D	1	10/14/21 16:39	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	76.2	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-152%
877-09-8	Tetrachloro-m-xylene	84%		24-152%
2051-24-3	Decachlorobiphenyl	95%		10-172%
2051-24-3	Decachlorobiphenyl	98%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-001.0-20210831		
Lab Sample ID:	FA88588-99	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472384.D	1	10/14/21 16:57	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	52	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	462	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	43% [b]		24-152%
877-09-8	Tetrachloro-m-xylene	42% [b]		24-152%
2051-24-3	Decachlorobiphenyl	60%		10-172%
2051-24-3	Decachlorobiphenyl	65%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-002.0-20210831		
Lab Sample ID:	FA88588-100	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2472385.D	1	10/14/21 17:14	ANJ	10/12/21 18:45	N:OP35304	N:GXX7614
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	51	ug/kg	
11097-69-1	Aroclor 1254	45 U	57	45	31	ug/kg	
11096-82-5	Aroclor 1260	45 U	57	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		24-152%
877-09-8	Tetrachloro-m-xylene	82%		24-152%
2051-24-3	Decachlorobiphenyl	86%		10-172%
2051-24-3	Decachlorobiphenyl	83%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-003.0-20210831		
Lab Sample ID:	FA88588-101	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470701.D	1	09/14/21 18:14	ANJ	09/09/21 17:05	N:OP35305	N:GXX7575
Run #2							

	Initial Weight	Final Volume
Run #1	11.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		24-152%
877-09-8	Tetrachloro-m-xylene	80%		24-152%
2051-24-3	Decachlorobiphenyl	90%		10-172%
2051-24-3	Decachlorobiphenyl	88%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-000.5-20210831		
Lab Sample ID:	FA88588-102	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470704.D	1	09/14/21 19:06	ANJ	09/09/21 17:05	N:OP35305	N:GXX7575
Run #2 [a]	XX2470885.D	5	09/17/21 10:18	ANJ	09/09/21 17:05	N:OP35305	N:GXX7580

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2	10.7 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	57	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	57	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	57	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	57	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	51	ug/kg	
11097-69-1	Aroclor 1254	45 U	57	45	31	ug/kg	
11096-82-5	Aroclor 1260	6420 [b]	280	230	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%	98%	24-152%
877-09-8	Tetrachloro-m-xylene	89%	96%	24-152%
2051-24-3	Decachlorobiphenyl	125%	101%	10-172%
2051-24-3	Decachlorobiphenyl	134%	130%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-001.0-20210831		
Lab Sample ID:	FA88588-103	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470707.D	1	09/14/21 19:57	ANJ	09/09/21 17:05	N:OP35305	N:GXX7575
Run #2 [a]	XX2470888.D	5	09/17/21 11:09	ANJ	09/09/21 17:05	N:OP35305	N:GXX7580

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2	10.1 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	67	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	67	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	67	53	43	ug/kg	
53469-21-9	Aroclor 1242	53 U	67	53	27	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	53 U	67	53	36	ug/kg	
11096-82-5	Aroclor 1260	4860 [b]	330	270	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%	60%	24-152%
877-09-8	Tetrachloro-m-xylene	86%	69%	24-152%
2051-24-3	Decachlorobiphenyl	110%	112%	10-172%
2051-24-3	Decachlorobiphenyl	160%	129%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-002.0-20210831		
Lab Sample ID:	FA88588-104	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470705.D	1	09/14/21 19:23	ANJ	09/09/21 17:05	N:OP35305	N:GXX7575
Run #2 [a]	XX2470886.D	5	09/17/21 10:35	ANJ	09/09/21 17:05	N:OP35305	N:GXX7580

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2	11.5 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	10700 [b]	280	230	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%	85%	24-152%
877-09-8	Tetrachloro-m-xylene	90%	104%	24-152%
2051-24-3	Decachlorobiphenyl	122%	117%	10-172%
2051-24-3	Decachlorobiphenyl	160%	175% [c]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-003.0-20210831		
Lab Sample ID:	FA88588-105	**Date Sampled:**	08/31/21
Matrix:	SO - Soil	**Date Received:**	09/01/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2470706.D	1	09/14/21 19:40	ANJ	09/09/21 17:05	N:OP35305	N:GXX7575
Run #2 [a]	XX2470887.D	5	09/17/21 10:52	ANJ	09/09/21 17:05	N:OP35305	N:GXX7580

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2	10.9 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	10100 [b]	290	230	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%	74%	24-152%
877-09-8	Tetrachloro-m-xylene	82%	95%	24-152%
2051-24-3	Decachlorobiphenyl	111%	109%	10-172%
2051-24-3	Decachlorobiphenyl	323% [c]	122%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

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FA88588

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SGS - ORLANDO Quote #	SKIFF #

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Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0339-000.5-20210831	8/31/21	0825	HF	SO	1										X	
2	SAEE-SB0339-001.0-20210831	8/31/21	0826	HF	SO	1										X	
3	SAEE-SB0339-002.0-20210831	8/31/21	0827	HF	SO	1										X	
4	SAEE-SB0339-003.0-20210831	8/31/21	0828	HF	SO	1										X	
5	SAEE-SB0340-000.5-20210831	8/31/21	0835	HF	SO	1										X	
6	SAEE-SB0340-001.0-20210831	8/31/21	0836	HF	SO	1										X	
7	SAEE-SB0340-002.0-20210831	8/31/21	0837	HF	SO	1										X	
8	SAEE-SB0340-003.0-20210831	8/31/21	0838	HF	SO	1										X	
9	SAEE-SB0341-000.5-20210831	8/31/21	0852	HF	SO	1										X	
10	SAEE-SB0341-001.0-20210831	8/31/21	0853	HF	SO	1										X	
11	SAEE-SB0341-002.0-20210831	8/31/21	0854	HF	SO	1										X	
12	SAEE-SB0341-003.0-20210831	8/31/21	0855	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT
LABEL VERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	RL / HGL	9/1 1241	2	3	9/1/21 1715	4 9/2/21 0930
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5			6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 1.4, 4.8, 4.0

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 8-31-21 Soil Rev 031318

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Page 1 of 14

SGS North America Inc - Orlando

Chain of Custody

FA88588

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www.sgs.com

SGS - ORLANDO JOB # : PAGE 2 OF 9

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
13	SAEE-SB0342-000.5-20210831	8/31/21	0858	HF	SO	1										X	
14	SAEE-SB0342-001.0-20210831	8/31/21	0859	HF	SO	1										X	
15	SAEE-SB0342-002 0-20210831	8/31/21	0900	HF	SO	1										X	
16	SAEE-SB0342-003.0-20210831	8/31/21	0901	HF	SO	1										X	
17	SAEE-SB0343-000.5-20210831	8/31/21	0909	HF	SO	1										X	
18	SAEE-SB0343-001.0-20210831	8/31/21	0910	HF	SO	1										X	
19	SAEE-SB0343-002.0-20210831	8/31/21	0911	HF	SO	1										X	
20	SAEE-SB0344-000.5-20210831	8/31/21	0928	HF	SO	1										X	
21	SAEE-SB0344-001.0-20210831	8/31/21	0929	HF	SO	1										X	
22	SAEE-SB0344-002.0-20210831	8/31/21	0930	HF	SO	1										X	
23	SAEE-SB0345-000.5-20210831	8/31/21	0936	HF	SO	1										X	
24	SAEE-SB0345-001.0-20210831	8/31/21	0937	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	RL / HGL	9/1 1241	2	3	9/1/21 1415	4 9/2/21 0930
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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COC PRL-227 8-31-21 Soil Rev 031318

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Chain of Custody

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SGS - ORLANDO JOB # : PAGE 3 OF 9

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0345-002.0-20210831	8/31/21	0938	HF	SO	1										X	
26	SAEE-SB0345-003.0-20210831	8/31/21	0939	HF	SO	1										X	
27	SAEE-SB0346-000.5-20210831	8/31/21	0952	HF	SO	1										X	
28	SAEE-SB0346-001.0-20210831	8/31/21	0953	HF	SO	1										X	
29	SAEE-SB0346-002.0-20210831	8/31/21	0954	HF	SO	1										X	
30	SAEE-SB0346-003.0-20210831	8/31/21	0955	HF	SO	1										X	
31	SAEE-SB0346-004.0-20210831	8/31/21	0956	HF	SO	1										X	
32	SAEE-SB0347-000.5-20210831	8/31/21	0845	HF	SO	1										X	
33	SAEE-SB0347-001.0-20210831	8/31/21	0846	HF	SO	1										X	
34	SAEE-SB0347-002.0-20210831	8/31/21	0847	HF	SO	1										X	
35	SAEE-SB0347-003.0-20210831	8/31/21	0848	HF	SO	1										X	
36	SAEE-SB0347-004.0-20210831	8/31/21	0849	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 RL / HGL	9/1 1241	2	3	9/1/21	4 9/2/21
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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COC PRL-227 8-31-21 Soil Rev 031318

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Chain of Custody

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SGS - ORLANDO JOB # : PAGE 4 OF 9

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
37	SAEE-SB0348-000.5-20210831	8/31/21	0914	HF	SO	1										X	
38	SAEE-SB0348-001.0-20210831	8/31/21	0915	HF	SO	1										X	
39	SAEE-SB0348-002.0-20210831	8/31/21	0916	HF	SO	1										X	
40	SAEE-SB0348-003.0-20210831	8/31/21	0917	HF	SO	1										X	
41	SAEE-SB0348-004.0-20210831	8/31/21	0918	HF	SO	1										X	
42	SAEE-SB0349-000.5-20210831	8/31/21	1005	HF	SO	1										X	
43	SAEE-SB0349-001.0-20210831	8/31/21	1006	HF	SO	1										X	
44	SAEE-SB0349-002.0-20210831	8/31/21	1007	HF	SO	1										X	
45	SAEE-SB0349-003.0-20210831	8/31/21	1008	HF	SO	1										X	
46	SAEE-SB0349-004.0-20210831	8/31/21	1009	HF	SO	1										X	
47	SAEE-SB0350-000.5-20210831	8/31/21	1023	HF	SO	1										X	
48	SAEE-SB0350-001.0-20210831	8/31/21	1024	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☐ FULLT1 (EPA LEVEL 4)
☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	RL / HGL	9/1 1241	2	3	9/1/21 1715	4 9/2/21 0430
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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SGS - ORLANDO JOB # : PAGE 5 OF 9

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NACH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
49	SAEE-SB0350-002.0-20210831	8/31/21	1025	HF	SO	1										X	
50	SAEE-SB0350-003.0-20210831	8/31/21	1026	HF	SO	1										X	
51	SAEE-SB0350-004.0-20210831	8/31/21	1027	HF	SO	1										X	
52	SAEE-SB0351-004.0-20210831	8/31/21	1107	HF	SO	1										X	
53	SAEE-SB0352-000.5-20210831	8/31/21	1119	HF	SO	1										X	
54	SAEE-SB0352-001.0-20210831	8/31/21	1120	HF	SO	1										X	
55	SAEE-SB0352-002.0-20210831	8/31/21	1121	HF	SO	1										X	
56	SAEE-SB0352-003.0-20210831	8/31/21	1122	HF	SO	1										X	
57	SAEE-SB0352-004.0-20210831	8/31/21	1123	HF	SO	1										X	
58	SAEE-SB0353-000.5-20210831	8/31/21	1125	HF	SO	1										X	
59	SAEE-SB0353-001.0-20210831	8/31/21	1126	HF	SO	1										X	
60	SAEE-SB0353-002.0-20210831	8/31/21	1127	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	PRL / HGL	9/1 1241	2.	3.	9/1/21 1445	4. 9/2/21 0930
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 8-31-21 Soil Rev 031318

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Chain of Custody

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SGS - ORLANDO JOB # : PAGE 6 OF 9

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information | **Project Information** | **Analytical Information** | **Matrix Codes**

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
61	SAEE-SB0353-003.0-20210831	8/31/21	1128	HF	SO	1										X	
62	SAEE-SB0353-004.0-20210831	8/31/21	1129	HF	SO	1										X	
63	SAEE-SB0354-000.5-20210831	8/31/21	1202	HF	SO	1										X	
64	SAEE-SB0354-001.0-20210831	8/31/21	1203	HF	SO	1										X	
65	SAEE-SB0354-002.0-20210831	8/31/21	1204	HF	SO	1										X	
66	SAEE-SB0354-003.0-20210831	8/31/21	1205	HF	SO	1										X	
67	SAEE-SB0354-004.0-20210831	8/31/21	1206	HF	SO	1										X	
68	SAEE-SB0355-000.5-20210831	8/31/21	1054	HF	SO	1										X	
69	SAEE-SB0355-001.0-20210831	8/31/21	1055	HF	SO	1										X	
70	SAEE-SB0355-002.0-20210831	8/31/21	1056	HF	SO	1										X	
71	SAEE-SB0355-003.0-20210831	8/31/21	1057	HF	SO	1										X	
72	SAEE-SB0355-004.0-20210831	8/31/21	1058	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	EL / HGL	9/1 1241	2	3	9/1/21 1715	4 9/2/21 0730
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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COC PRL-227 8-31-21 Soil Rev 031318

SGS North America Inc - Orlando

Chain of Custody

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SGS - ORLANDO JOB # : PAGE 7 OF 9

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
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Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.05
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MECH	P8082SOXHLETPCB SOL104	LAB USE ONLY
73	SAEE-SB0357-000.5-20210831	8/31/21	1013	HF	SO	1										X	
74	SAEE-SB0357-001.0-20210831	8/31/21	1014	HF	SO	1										X	
75	SAEE-SB0357-002.0-20210831	8/31/21	1015	HF	SO	1										X	
76	SAEE-SB0357-003.0-20210831	8/31/21	1016	HF	SO	1										X	
77	SAEE-SB0357-004.0-20210831	8/31/21	1017	HF	SO	1										X	
78	SAEE-SB0358-000.5-20210831	8/31/21	1228	HF	SO	1										X	
79	SAEE-SB0358-001.0-20210831	8/31/21	1229	HF	SO	1										X	
80	SAEE-SB0358-002.0-20210831	8/31/21	1230	HF	SO	1										X	
81	SAEE-SB0358-003.0-20210831	8/31/21	1231	HF	SO	1										X	
82	SAEE-SB0358-004.0-20210831	8/31/21	1232	HF	SO	1										X	
83	SAEE-SB0359-000.5-20210831	8/31/21	0943	HF	SO	1										X	
84	SAEE-SB0359-001.0-20210831	8/31/21	0944	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	PL / HGL	9/1 1241	2	3	9/1/21 1415	4 MN dhw 9/1/21 930
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 8-31-21 Soil Rev 031318

SGS North America Inc - Orlando

Chain of Custody

FA88588

SGS - ORLANDO JOB # : PAGE 8 OF 9

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information	Analytical Information	Matrix Codes
Company Name: HGL, Inc.	Project Name: PRL 227, LOC 3 Confirmatory Sampling		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid
Address: 2405 N. Courtney Parkway, STE 203	Street Kennedy Space Center		
City: Merrit Island State: FL Zip:32937	City Merritt Island State FL		
Project Contact: Denise Rivers Email:drivers@hgl.com	Project # NS1005.07.05		
Phone #:910-233-8460	Fax #		
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Jason Bublitz	Client Purchase Order #		

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
85	SAEE-SB0359-002.0-20210831	8/31/21	0945	HF	SO	1										X	
86	SAEE-SB0359-003.0-20210831	8/31/21	0946	HF	SO	1										X	
87	SAEE-SB0359-004.0-20210831	8/31/21	0947	HF	SO	1										X	
88	SAEE-SB0360-000.5-20210831	8/31/21	1151	HF	SO	1										X	
89	SAEE-SB0360-001.0-20210831	8/31/21	1152	HF	SO	1										X	
90	SAEE-SB0360-002.0-20210831	8/31/21	1153	HF	SO	1										X	
91	SAEE-SB0360-003.0-20210831	8/31/21	1154	HF	SO	1										X	
92	SAEE-SB0360-004.0-20210831	8/31/21	1155	HF	SO	1										X	
93	SAEE-SB0361-000.5-20210831	8/31/21	1038	HF	SO	1										X	
94	SAEE-SB0361-001.0-20210831	8/31/21	1039	HF	SO	1										X	
95	SAEE-SB0361-002.0-20210831	8/31/21	1040	HF	SO	1										X	
96	SAEE-SB0361-003.0-20210831	8/31/21	1041	HF	SO	1										X	

Turnaround Time (Business days)	Data Deliverable Information	Comments / Remarks
X 10 Day (Business) Approved By: / Date:	COMMERCIAL "A" (RESULTS ONLY)	
7 Day	COMMERCIAL "B" (RESULTS PLUS QC)	
5 Day	REDT1 (EPA LEVEL 3)	
3 Day *RUSH*	FULLT1 (EPA LEVEL 4)	
2 Day *RUSH*	EDD'S	
1 Day *RUSH*		
Other		
Rush T/A Data Available VIA Email or Lablink		

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 RL / HGL	9/1 1241	2	3	9/1/21 1415	4 9/2/21 930
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): _____ http://www.sgs.com/en/terms-and-conditions

COC PRL-227 8-31-21 Soil Rev 031318

FA88588

SGS North America Inc - Orlando

Chain of Custody

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TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 9 OF 9

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.05
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
97	SAEE-SB0361-004.0-20210831	8/31/21	1042	HF	SO	1										X	
98	SAEE-SB0362-000.5-20210831	8/31/21	1217	HF	SO	1										X	
99	SAEE-SB0362-001.0-20210831	8/31/21	1218	HF	SO	1										X	
100	SAEE-SB0362-002.0-20210831	8/31/21	1219	HF	SO	1										X	
101	SAEE-SB0362-003.0-20210831	8/31/21	1220	HF	SO	1										X	
102	SAEE-SB0356-000.5-20210831	8/31/21	1211	HF	SO	1										X	
103	SAEE-SB0356-001.0-20210831	8/31/21	1212	HF	SO	1										X	
104	SAEE-SB0356-002.0-20210831	8/31/21	1213	HF	SO	1										X	
105	SAEE-SB0356-003.0-20210831	8/31/21	1214	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	RL / HGL	9/1 1241	2	3	9/1/21 1145	4 9/2/21 0930
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 8-31-21 Soil Rev 031318

SGS Sample Receipt Summary

Job Number: FA88588 **Client:** HGL **Project:** PRL 227, LOC 3 CONFIRMATORY SAMPLING

Date / Time Received: 9/1/2021 2:15:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 3

Cooler Temps (Raw Measured) °C: Cooler 1: (1.4); Cooler 2: (4.8); Cooler 3: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (1.6); Cooler 2: (5.0); Cooler 3: (4.2);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: BRYANG Date: 9/1/2021 2:15:00 PM Reviewer: _____ Date: _____

Job Change Order: FA88588

Requested Date:	8/30/2021	**Received Date:**	9/1/2021
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/15/2021
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	14

==========

Sample #: FA88588-52

Dept:

TAT: 14

SAEE-SB0351-004.0-20210831

Change:

Per request of client, please change sample ID to SAEE-SB0296-004.0-202 10831, add modified COC to server. Thank you.

==========

Above Changes Per: Client, Robert Lynch, via e-mail re **Date/Time:** 9/2/2021 4:17:07 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

SGS North America Inc - Orlando

Chain of Custody

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www.sgs.com

SGS - ORLANDO JOB # : PAGE 5 OF 9

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information | **Project Information** | **Analytical Information** | **Matrix Codes**

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0350-002.0-20210831	8/31/21	1025	HF	SO	1										X	
	SAEE-SB0350-003.0-20210831	8/31/21	1026	HF	SO	1										X	
	SAEE-SB0350-004.0-20210831	8/31/21	1027	HF	SO	1										X	
	SAEE-SB0296-004.0-20210831	8/31/21	1107	HF	SO	1										X	
	SAEE-SB0352-000.5-20210831	8/31/21	1119	HF	SO	1										X	
	SAEE-SB0352-001.0-20210831	8/31/21	1120	HF	SO	1										X	
	SAEE-SB0352-002.0-20210831	8/31/21	1121	HF	SO	1										X	
	SAEE-SB0352-003.0-20210831	8/31/21	1122	HF	SO	1										X	
	SAEE-SB0352-004.0-20210831	8/31/21	1123	HF	SO	1										X	
	SAEE-SB0353-000.5-20210831	8/31/21	1125	HF	SO	1										X	
	SAEE-SB0353-001.0-20210831	8/31/21	1126	HF	SO	1										X	
	SAEE-SB0353-002.0-20210831	8/31/21	1127	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Change SAEE-SB0351-004.0-20210831 to SAEE-SB0296-004.0-20210831

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):_____

http://www.sgs.com/en/terms-and-conditions

Job Change Order: FA88588

Requested Date:	9/7/2021	**Received Date:**	9/1/2021
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/15/2021
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	18

==========

Sample #: FA88588-1-105

Dept:

TAT: 18

Change:

Please change due date to 14 days from receipt in NJ - 9/21/2. Client has been notified. Thank you.

==========

Above Changes Per: CSR **Date/Time:** 9/7/2021 12:25:45 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

Job Change Order: FA88588

Requested Date:	10/11/2021	**Received Date:**	9/1/2021
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/21/2021
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	14

==========

Sample #: FA88588-52

Dept:

TAT: 14

SAEE-SB0351-004.0-20210831

Change:

Per client request, please change sample ID to SAEE-SB0296-004.0-20210831. Thank you.

==========

Above Changes Per: client, Howard Fowler, via e-mail r **Date/Time:** 10/14/2021 3:03:38 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA88588

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS

30

CHAIN OF CUSTODY

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www.sgs.com/ehsusa

PN

Page 1 of

FED-EX Tracking # 5061 4510 8920 | Bottle Order Control #
SGS Quote # | SGS Job # FA8858

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Billing Information (if different from Report to)
City: Orlando State: FL Zip: 32811	City State	Company Name
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	Street Address
Phone #: 407-425-6700 Fax #	Client Purchase Order #	City State Zip
Sampler(s) Name(s): HFJB Phone	Project Manager	Attention:

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104
1	SAEE-SB0339-000.5-20210831		8/31/21	8:25:00 AM	HFJB	SO	1					x				X
2	SAEE-SB0339-001.0-20210831		8/31/21	8:26:00 AM	HFJB	SO	1					x				X
3	SAEE-SB0339-002.0-20210831		8/31/21	8:27:00 AM	HFJB	SO	1					x				X
4	SAEE-SB0339-003.0-20210831		8/31/21	8:28:00 AM	HFJB	SO	1					x				X
5	SAEE-SB0340-000.5-20210831		8/31/21	8:35:00 AM	HFJB	SO	1					x				X
6	SAEE-SB0340-001.0-20210831		8/31/21	8:36:00 AM	HFJB	SO	1					x				X
7	SAEE-SB0340-002.0-20210831		8/31/21	8:37:00 AM	HFJB	SO	1					x				X
8	SAEE-SB0340-003.0-20210831		8/31/21	8:38:00 AM	HFJB	SO	1					x				X
9	SAEE-SB0341-000.5-20210831		8/31/21	8:52:00 AM	HFJB	SO	1					x				X
10	SAEE-SB0341-001.0-20210831		8/31/21	8:53:00 AM	HFJB	SO	1					x				X
11	SAEE-SB0341-002.0-20210831		8/31/21	8:54:00 AM	HFJB	SO	1					x				X
12	SAEE-SB0341-003.0-20210831		8/31/21	8:55:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days) | Data Deliverable Information | Comments / Special Instructions

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/15/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Please subcontract to SGS Dayton, Thank you.
WIZ-16

http://www.sgs.com/er

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 9/3/21	Received By: 1 fedex	Relinquished By: 2 FX	Date Time: 9/4/21 9:30	Received By:
Relinquished by Sampler: 3	Date Time: 700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # X Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

Temp. 4.3°, 4.2°C-F

6.1 6

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # | Bottle Order Control #
SGS Quote # | SGS Job # FA8858

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104
13	SAEE-SB0342-000.5-20210831		8/31/21	8:58:00 AM	HFJB	SO	1					x				X
14	SAEE-SB0342-001.0-20210831		8/31/21	8:59:00 AM	HFJB	SO	1					x				X
15	SAEE-SB0342-002.0-20210831		8/31/21	9:00:00 AM	HFJB	SO	1					x				X
16	SAEE-SB0342-003.0-20210831		8/31/21	9:01:00 AM	HFJB	SO	1					x				X
17	SAEE-SB0343-000.5-20210831		8/31/21	9:09:00 AM	HFJB	SO	1					x				X
18	SAEE-SB0343-001.0-20210831		8/31/21	9:10:00 AM	HFJB	SO	1					x				X
19	SAEE-SB0343-002.0-20210831		8/31/21	9:11:00 AM	HFJB	SO	1					x				X
20	SAEE-SB0344-000.5-20210831		8/31/21	9:28:00 AM	HFJB	SO	1					x				X
21	SAEE-SB0344-001.0-20210831		8/31/21	9:29:00 AM	HFJB	SO	1					x				X
22	SAEE-SB0344-002.0-20210831		8/31/21	9:30:00 AM	HFJB	SO	1					x				X
23	SAEE-SB0345-000.5-20210831		8/31/21	9:36:00 AM	HFJB	SO	1					x				X
24	SAEE-SB0345-001.0-20210831		8/31/21	9:37:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/15/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/er

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 9/3/21	Received By: 1	Relinquished By: 2	Date Time: 9/4/21 9:30	Received By: 2
Relinquished by Sampler: 3	Date Time: 1700	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

SGS

CHAIN OF CUSTODY

~~SGS~~ North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # FA8858

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)
Company Name: ~~SGS~~ North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Billing Information (if different from Report to)
City: Orlando State: FL Zip: 32811	City State	Company Name
Project Contact: jean.dent-smith@sgs.com E-mail	Project #	Street Address
Phone #: 407-425-6700 Fax #	Client Purchase Order #	City State Zip
Sampler(s) Name(s): HFJB Phone	Project Manager	Attention:

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104
25	SAEE-SB0345-002.0-20210831		8/31/21	9:38:00 AM	HFJB	SO	1					x				X
26	SAEE-SB0345-003.0-20210831		8/31/21	9:39:00 AM	HFJB	SO	1					x				X
27	SAEE-SB0346-000.5-20210831		8/31/21	9:52:00 AM	HFJB	SO	1					x				X
28	SAEE-SB0346-001.0-20210831		8/31/21	9:53:00 AM	HFJB	SO	1					x				X
29	SAEE-SB0346-002.0-20210831		8/31/21	9:54:00 AM	HFJB	SO	1					x				X
30	SAEE-SB0346-003.0-20210831		8/31/21	9:55:00 AM	HFJB	SO	1					x				X
31	SAEE-SB0346-004.0-20210831		8/31/21	9:56:00 AM	HFJB	SO	1					x				X
32	SAEE-SB0347-000.5-20210831		8/31/21	8:45:00 AM	HFJB	SO	1					x				X
33	SAEE-SB0347-001.0-20210831		8/31/21	8:46:00 AM	HFJB	SO	1					x				X
34	SAEE-SB0347-002.0-20210831		8/31/21	8:47:00 AM	HFJB	SO	1					x				X
35	SAEE-SB0347-003.0-20210831		8/31/21	8:48:00 AM	HFJB	SO	1					x				X
36	SAEE-SB0347-004.0-20210831		8/31/21	8:49:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- ( ) Standard 10 Day (business)
- ( ) 5 Business Days RUSH
- ( ) 3 Business Days RUSH
- ( ) 2 Business Days RUSH
- ( ) 1 Business Day EMERGENCY
- (X) other Due 9/15/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- ( ) Commercial "A" (Level 1)
- ( ) Commercial "B" (Level 2)
- ( ) REDT1 (Level 3)
- ( ) FULT1 (Level 4)
- ( ) Commercial "C"
- ( ) State Forms
- ( ) EDD Format
- ( ) Other
- (X) cc

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 Peter H	Date Time: 9/3/21 1700	Received By: 1 FX	Relinquished By: 2 FX	Date Time: 9/4/21 9:30	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not Intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # | Bottle Order Control #
SGS Quote # | SGS Job # FA8858

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail
Phone #: 407-425-6700 Fax #
Sampler(s) Name(s): HFJB Phone

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street
City State
Project #
Client Purchase Order #
Project Manager

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	PB082SOXHLETPCB .SOL104
37	SAEE-SB0348-000.5-20210831		8/31/21	9:14:00 AM	HFJB	SO	1					x				X
38	SAEE-SB0348-001.0-20210831		8/31/21	9:15:00 AM	HFJB	SO	1					x				X
39	SAEE-SB0348-002.0-20210831		8/31/21	9:16:00 AM	HFJB	SO	1					x				X
40	SAEE-SB0348-003.0-20210831		8/31/21	9:17:00 AM	HFJB	SO	1					x				X
41	SAEE-SB0348-004.0-20210831		8/31/21	9:18:00 AM	HFJB	SO	1					x				X
42	SAEE-SB0349-000.5-20210831		8/31/21	10:05:00 AM	HFJB	SO	1					x				X
43	SAEE-SB0349-001.0-20210831		8/31/21	10:06:00 AM	HFJB	SO	1					x				X
44	SAEE-SB0349-002.0-20210831		8/31/21	10:07:00 AM	HFJB	SO	1					x				X
45	SAEE-SB0349-003.0-20210831		8/31/21	10:08:00 AM	HFJB	SO	1					x				X
46	SAEE-SB0349-004.0-20210831		8/31/21	10:09:00 AM	HFJB	SO	1					x				X
47	SAEE-SB0350-000.5-20210831		8/31/21	10:23:00 AM	HFJB	SO	1					x				X
48	SAEE-SB0350-001.0-20210831		8/31/21	10:24:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 9/15/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [x] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1			1	2	9/8/21 9:30	
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

6.1 6

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CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # FA8858

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104
49	SAEE-SB0350-002.0-20210831		8/31/21	10:25:00 AM	HFJB	SO	1					x				X
50	SAEE-SB0350-003.0-20210831		8/31/21	10:26:00 AM	HFJB	SO	1					x				X
51	SAEE-SB0350-004.0-20210831		8/31/21	10:27:00 AM	HFJB	SO	1					x				X
52	SAEE-SB0296-004.0-20210831		8/31/21	11:07:00 AM	HFJB	SO	1					x				X
53	SAEE-SB0351-000.5-20210831		8/31/21	11:19:00 AM	HFJB	SO	1					x				X
54	SAEE-SB0352-001.0-20210831		8/31/21	11:20:00 AM	HFJB	SO	1					x				X
55	SAEE-SB0352-002.0-20210831		8/31/21	11:21:00 AM	HFJB	SO	1					x				X
56	SAEE-SB0352-003.0-20210831		8/31/21	11:22:00 AM	HFJB	SO	1					x				X
57	SAEE-SB0352-004.0-20210831		8/31/21	11:23:00 AM	HFJB	SO	1					x				X
58	SAEE-SB0353-000.5-20210831		8/31/21	11:25:00 AM	HFJB	SO	1					x				X
59	SAEE-SB0353-001.0-20210831		8/31/21	11:26:00 AM	HFJB	SO	1					x				X
60	SAEE-SB0353-002.0-20210831		8/31/21	11:27:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 9/15/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT.

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [x] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/en

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1			1 Fx	2 Fx	9/4/21 9:30	4
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # | Bottle Order Control #
SGS Quote # | Please subcontract to SGS Dayton, TX | SGS Job #

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Requested Analysis
61	SAEE-SB0353-003.0-20210831		8/31/21	11:28:00 AM	HFJB	SO	1					x				X
62	SAEE-SB0353-004.0-20210831		8/31/21	11:29:00 AM	HFJB	SO	1					x				X
63	SAEE-SB0354-000.5-20210831		8/31/21	12:02:00 PM	HFJB	SO	1					x				X
64	SAEE-SB0354-001.0-20210831		8/31/21	12:03:00 PM	HFJB	SO	1					x				X
65	SAEE-SB0354-002.0-20210831		8/31/21	12:04:00 PM	HFJB	SO	1					x				X
66	SAEE-SB0354-003.0-20210831		8/31/21	12:05:00 PM	HFJB	SO	1					x				X
67	SAEE-SB0354-004.0-20210831		8/31/21	12:06:00 PM	HFJB	SO	1					x				X
68	SAEE-SB0355-000.5-20210831		8/31/21	10:54:00 AM	HFJB	SO	1					x				X
69	SAEE-SB0355-001.0-20210831		8/31/21	10:55:00 AM	HFJB	SO	1					x				X
70	SAEE-SB0355-002.0-20210831		8/31/21	10:56:00 AM	HFJB	SO	1					x				X
71	SAEE-SB0355-003.0-20210831		8/31/21	10:57:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/15/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special instructions

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1			1 FX	2 FX	9/9/21 9:30	2
3			3	4		4
5			5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA8858

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Requested Analysis
72	SAEE-SB0355-004.0-20210831		8/31/21	10:58:00 AM	HFJB	SO	1					x				X
73	SAEE-SB0357-000.5-20210831		8/31/21	10:13:00 AM	HFJB	SO	1					x				X
74	SAEE-SB0357-001.0-20210831		8/31/21	10:14:00 AM	HFJB	SO	1					x				X
75	SAEE-SB0357-002.0-20210831		8/31/21	10:15:00 AM	HFJB	SO	1					x				X
76	SAEE-SB0357-003.0-20210831		8/31/21	10:16:00 AM	HFJB	SO	1					x				X
77	SAEE-SB0357-004.0-20210831		8/31/21	10:17:00 AM	HFJB	SO	1					x				X
78	SAEE-SB0358-000.5-20210831		8/31/21	12:28:00 PM	HFJB	SO	1					x				X
79	SAEE-SB0358-001.0-20210831		8/31/21	12:29:00 PM	HFJB	SO	1					x				X
80	SAEE-SB0358-002.0-20210831		8/31/21	12:30:00 PM	HFJB	SO	1					x				X
81	SAEE-SB0358-003.0-20210831		8/31/21	12:31:00 PM	HFJB	SO	1					x				X
82	SAEE-SB0358-004.0-20210831		8/31/21	12:32:00 PM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 9/15/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1			FX	FX	9/4/21 9:30	
2						
3	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice
				[ ] Intact [ ] Not intact	[ ] Therm. ID:	[ ]

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # | Bottle Order Control #
SGS Quote # | SGS Job # FA88588

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail
Phone #: 407-425-6700 Fax #
Sampler(s) Name(s): HFJB Phone

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street
City State
Project #
Client Purchase Order #
Project Manager

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Requested Analysis
83	SAEE-SB0359-000.5-20210831		8/31/21	9:43:00 AM	HFJB	SO	1					x				X
84	SAEE-SB0359-001.0-20210831		8/31/21	9:44:00 AM	HFJB	SO	1					x				X
85	SAEE-SB0359-002.0-20210831		8/31/21	9:45:00 AM	HFJB	SO	1					x				X
86	SAEE-SB0359-003.0-20210831		8/31/21	9:46:00 AM	HFJB	SO	1					x				X
87	SAEE-SB0359-004.0-20210831		8/31/21	9:47:00 AM	HFJB	SO	1					x				X
88	SAEE-SB0360-000.5-20210831		8/31/21	11:51:00 AM	HFJB	SO	1					x				X
89	SAEE-SB0360-001.0-20210831		8/31/21	11:52:00 AM	HFJB	SO	1					x				X
90	SAEE-SB0360-002.0-20210831		8/31/21	11:53:00 AM	HFJB	SO	1					x				X
91	SAEE-SB0360-003.0-20210831		8/31/21	11:54:00 AM	HFJB	SO	1					x				X
92	SAEE-SB0360-004.0-20210831		8/31/21	11:55:00 AM	HFJB	SO	1					x				X
93	SAEE-SB0361-000.5-20210831		8/31/21	10:38:00 AM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/15/2021

Emergency & Rush T/A data available via Labink. Approval needed for RUSH/Emergency TAT.

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- X CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2	9/1/21 9:30	
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice
5		5	☐ Intact ☐ Not intact	☐ Therm. ID:	☐

6.1 6

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA8858

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Company Name:
City: Orlando State: FL Zip: 32811	City: State:	Street Address:
Project Contact: jean.dent-smith@sgs.com E-mail:	Project #:	City: State: Zip:
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	Attention:
Sampler(s) Name(s): HFJB Phone:	Project Manager:	

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Requested Analysis
94	SAEE-SB0361-001.0-20210831		8/31/21	10:39:00 AM	HFJB	SO	1					x				X
95	SAEE-SB0361-002.0-20210831		8/31/21	10:40:00 AM	HFJB	SO	1					x				X
96	SAEE-SB0361-003.0-20210831		8/31/21	10:41:00 AM	HFJB	SO	1					x				X
97	SAEE-SB0361-004.0-20210831		8/31/21	10:42:00 AM	HFJB	SO	1					x				X
98	SAEE-SB0362-000.5-20210831		8/31/21	12:17:00 PM	HFJB	SO	1					x				X
99	SAEE-SB0362-001.0-20210831		8/31/21	12:18:00 PM	HFJB	SO	1					x				X
100	SAEE-SB0362-002.0-20210831		8/31/21	12:19:00 PM	HFJB	SO	1					x				X
101	SAEE-SB0362-003.0-20210831		8/31/21	12:20:00 PM	HFJB	SO	1					x				X
102	SAEE-SB0356-000.5-20210831		8/31/21	12:11:00 PM	HFJB	SO	1					x				X
103	SAEE-SB0356-001.0-20210831		8/31/21	12:12:00 PM	HFJB	SO	1					x				X
104	SAEE-SB0356-002.0-20210831		8/31/21	12:13:00 PM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 9/15/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [X] Commercial "C" CL
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/e

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2	9/4/21 7:30	
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice
5		5	[ ] Intact [ ] Not intact	[ ] Therm. ID:	[ ]

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job #

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HFJB Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Requested Analysis
105	SAEE-SB0356-003.0-20210831		8/31/21	12:14:00 PM	HFJB	SO	1					x				X

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- Standard 10 Day (business)
- 5 Business Days RUSH
- 3 Business Days RUSH
- 2 Business Days RUSH
- 1 Business Day EMERGENCY
- X other Due 9/15/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- REDT1 (Level 3)
- FULT1 (Level 4)
- Commercial "C"
- State Forms
- EDD Format
- Other
- CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please subcontract to SGS Dayton, Thank you.

http://www.sgs.com/g

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1				Fx		
2			Fx		9/4/21 9:30	
3	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not Intact	Preserved where applicable / Therm. ID: / On Ice

SGS Sample Receipt Summary

Job Number: FA88588 **Client:** SGS **Project:** NASA

Date / Time Received: 9/4/2021 9:30:00 AM **Delivery Method:** FedEx **Airbill #'s:** 506145108920

Cooler Temps (Raw Measured) °C: Cooler 1: (4.3); Cooler 2: (4.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.4); Cooler 2: (3.3);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

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

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

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

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

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments No analysis listed on Page 6 thru Page 10.

SM089-03
Rev. Date 12/7/17

Job Change Order: FA88588

Requested Date:	9/7/2021	**Received Date:**	9/1/2021
Account Name:	Hydrogeologic, Inc.	**Due Date:**	9/15/2021
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	JDS	**TAT (Days):**	18

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Sample #: FA88588-1-105

Dept:

TAT: 18

Change:

Please change due date to 14 days from receipt in NJ - 9/21/2. Client has been notified. Thank you.

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Above Changes Per: CSR **Date/Time:** 9/7/2021 12:25:45 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP35300	SW846 8082A						
OP35300-BS1	12674-11-2	Aroclor 1016	BSP	REC	111	%	47-134
OP35300-BS1	11096-82-5	Aroclor 1260	BSP	REC	111	%	53-140
OP35300-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	70	%	44-130
OP35300-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	68	%	44-130
OP35300-MS	12674-11-2	Aroclor 1016	MS	REC	81	%	47-134
OP35300-MS	11096-82-5	Aroclor 1260	MS	REC	144 [a]	%	53-140
OP35300-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	72	%	44-130
OP35300-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	77	%	44-130
OP35300-MSD	12674-11-2	Aroclor 1016	MSD	REC	116	%	47-134
OP35300-MSD	12674-11-2	Aroclor 1016	MSD	RPD	36 [a]	%	30
OP35300-MSD	11097-69-1	Aroclor 1254	MSD	RPD	30	%	30
OP35300-MSD	11096-82-5	Aroclor 1260	MSD	REC	179 [a]	%	53-140
OP35300-MSD	11096-82-5	Aroclor 1260	MSD	RPD	22	%	30
OP35300-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	94	%	44-130
OP35300-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	102	%	44-130
OP35300-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	14 [b]	%	44-130
OP35300-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	21 [b]	%	44-130
OP35300-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	19 [b]	%	44-130
OP35300-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	21 [b]	%	44-130
FA88588-1	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	93	%	44-130
FA88588-1	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
FA88588-2	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	118	%	44-130
FA88588-2	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	129	%	44-130
FA88588-3	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	87	%	44-130
FA88588-3	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	97	%	44-130
FA88588-4	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA88588-4	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	89	%	44-130
FA88588-5	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-5	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	44-130
FA88588-6	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-6	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA88588-7	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-7	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-8	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	93	%	44-130
FA88588-8	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-9	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	96	%	44-130
FA88588-9	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	105	%	44-130
FA88588-10	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	105	%	44-130
FA88588-10	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	107	%	44-130
FA88588-11	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	85	%	44-130
FA88588-11	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	86	%	44-130
FA88588-12	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	81	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA88588-12	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	84	%	44-130
FA88588-13	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	81	%	44-130
FA88588-13	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	87	%	44-130
FA88588-14	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	102	%	44-130
FA88588-14	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	105	%	44-130
FA88588-16	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	88	%	44-130
FA88588-16	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	91	%	44-130
FA88588-17	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-17	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	96	%	44-130
FA88588-18	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-18	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-20	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	95	%	44-130
FA88588-20	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
OP35301	SW846 8082A						
OP35301-BS1	12674-11-2	Aroclor 1016	BSP	REC	119	%	47-134
OP35301-BS1	11096-82-5	Aroclor 1260	BSP	REC	135	%	53-140
OP35301-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	106	%	44-130
OP35301-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	115	%	44-130
OP35301-MS	12674-11-2	Aroclor 1016	MS	REC	84	%	47-134
OP35301-MS	11096-82-5	Aroclor 1260	MS	REC	136	%	53-140
OP35301-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	99	%	44-130
OP35301-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	103	%	44-130
OP35301-MSD	12674-11-2	Aroclor 1016	MSD	REC	115	%	47-134
OP35301-MSD	12674-11-2	Aroclor 1016	MSD	RPD	32 [a]	%	30
OP35301-MSD	11097-69-1	Aroclor 1254	MSD	RPD	35 [a]	%	30
OP35301-MSD	11096-82-5	Aroclor 1260	MSD	REC	156 [a]	%	53-140
OP35301-MSD	11096-82-5	Aroclor 1260	MSD	RPD	15	%	30
OP35301-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	114	%	44-130
OP35301-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	122	%	44-130
OP35301-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	103	%	44-130
OP35301-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	113	%	44-130
FA88588-21	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	97	%	44-130
FA88588-21	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	101	%	44-130
FA88588-22	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA88588-22	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA88588-23	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	100	%	44-130
FA88588-23	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	108	%	44-130
FA88588-24	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	87	%	44-130
FA88588-24	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-25	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA88588-25	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	98	%	44-130
FA88588-26	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA88588-26	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	133	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA88588-27	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	90	%	44-130
FA88588-27	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	95	%	44-130
FA88588-28	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	90	%	44-130
FA88588-28	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	96	%	44-130
FA88588-29	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	85	%	44-130
FA88588-29	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	88	%	44-130
FA88588-30	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	110	%	44-130
FA88588-30	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	106	%	44-130
FA88588-32	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	107	%	44-130
FA88588-32	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	116	%	44-130
FA88588-33	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	108	%	44-130
FA88588-33	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	114	%	44-130
FA88588-34	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	95	%	44-130
FA88588-34	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	99	%	44-130
FA88588-35	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA88588-35	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA88588-36	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-36	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	96	%	44-130
FA88588-37	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	94	%	44-130
FA88588-37	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	99	%	44-130
FA88588-38	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	136 [c]	%	44-130
FA88588-38	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA88588-38	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	138 [c]	%	44-130
FA88588-38	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA88588-39	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA88588-39	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA88588-40	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	93	%	44-130
FA88588-40	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
OP35303	SW846 8082A						
OP35303-BS1	12674-11-2	Aroclor 1016	BSP	REC	75	%	47-134
OP35303-BS1	11096-82-5	Aroclor 1260	BSP	REC	78	%	53-140
OP35303-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	74	%	44-130
OP35303-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	66	%	44-130
OP35303-MS	12674-11-2	Aroclor 1016	MS	REC	72	%	47-134
OP35303-MS	11096-82-5	Aroclor 1260	MS	REC	89	%	53-140
OP35303-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	68	%	44-130
OP35303-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	74	%	44-130
OP35303-MSD	12674-11-2	Aroclor 1016	MSD	REC	81	%	47-134
OP35303-MSD	12674-11-2	Aroclor 1016	MSD	RPD	14	%	30
OP35303-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP35303-MSD	11096-82-5	Aroclor 1260	MSD	REC	104	%	53-140
OP35303-MSD	11096-82-5	Aroclor 1260	MSD	RPD	17	%	30
OP35303-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	81	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP35303-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	81	%	44-130
OP35303-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	95	%	44-130
OP35303-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	85	%	44-130
FA88588-61	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA88588-61	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	91	%	44-130
FA88588-62	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-62	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	98	%	44-130
FA88588-63	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	64	%	44-130
FA88588-63	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	69	%	44-130
FA88588-64	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-64	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	83	%	44-130
FA88588-65	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	76	%	44-130
FA88588-65	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	76	%	44-130
FA88588-66	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	83	%	44-130
FA88588-66	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	83	%	44-130
FA88588-67	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA88588-67	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	92	%	44-130
FA88588-68	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	71	%	44-130
FA88588-68	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	66	%	44-130
FA88588-69	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	94	%	44-130
FA88588-69	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-70	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	95	%	44-130
FA88588-70	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-71	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	75	%	44-130
FA88588-71	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	44-130
FA88588-72	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	86	%	44-130
FA88588-72	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	83	%	44-130
FA88588-73	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	76	%	44-130
FA88588-73	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	44-130
FA88588-74	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	61	%	44-130
FA88588-74	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	63	%	44-130
FA88588-75	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	94	%	44-130
FA88588-75	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	90	%	44-130
FA88588-76	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	110	%	44-130
FA88588-76	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	105	%	44-130
FA88588-77	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	68	%	44-130
FA88588-77	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	65	%	44-130
FA88588-78	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	93	%	44-130
FA88588-78	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	76	%	44-130
FA88588-78	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	90	%	44-130
FA88588-78	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	72	%	44-130
FA88588-79	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-79	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	81	%	44-130
FA88588-80	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-80	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	81	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP35304	SW846 8082A						
OP35304-BS1	12674-11-2	Aroclor 1016	BSP	REC	94	%	47-134
OP35304-BS1	11096-82-5	Aroclor 1260	BSP	REC	93	%	53-140
OP35304-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	94	%	44-130
OP35304-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	97	%	44-130
OP35304-MS	12674-11-2	Aroclor 1016	MS	REC	66	%	47-134
OP35304-MS	11096-82-5	Aroclor 1260	MS	REC	24 [a]	%	53-140
OP35304-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	59	%	44-130
OP35304-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	57	%	44-130
OP35304-MSD	12674-11-2	Aroclor 1016	MSD	REC	118	%	47-134
OP35304-MSD	12674-11-2	Aroclor 1016	MSD	RPD	55 [a]	%	30
OP35304-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP35304-MSD	11096-82-5	Aroclor 1260	MSD	REC	176 [a]	%	53-140
OP35304-MSD	11096-82-5	Aroclor 1260	MSD	RPD	46 [a]	%	30
OP35304-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	96	%	44-130
OP35304-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	97	%	44-130
OP35304-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	96	%	44-130
OP35304-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	98	%	44-130
FA88588-81	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	45	%	44-130
FA88588-81	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	46	%	44-130
FA88588-82	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	45	%	44-130
FA88588-82	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	45	%	44-130
FA88588-83	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	93	%	44-130
FA88588-83	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	78	%	44-130
FA88588-83	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	81	%	44-130
FA88588-83	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	91	%	44-130
FA88588-84	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	35 [d]	%	44-130
FA88588-84	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	32 [d]	%	44-130
FA88588-85	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	40 [d]	%	44-130
FA88588-85	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	36 [d]	%	44-130
FA88588-86	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	31 [d]	%	44-130
FA88588-86	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	32	%	44-130
FA88588-87	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-87	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	88	%	44-130
FA88588-88	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-88	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	86	%	44-130
FA88588-89	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	37 [e]	%	44-130
FA88588-89	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	34 [e]	%	44-130
FA88588-90	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	62	%	44-130
FA88588-90	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	63	%	44-130
FA88588-91	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	88	%	44-130
FA88588-91	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
FA88588-92	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	40 [d]	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA88588-92	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	38 [d]	%	44-130
FA88588-93	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	25 [d]	%	44-130
FA88588-93	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	25 [d]	%	44-130
FA88588-94	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	48	%	44-130
FA88588-94	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	51	%	44-130
FA88588-95	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	45	%	44-130
FA88588-95	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	47	%	44-130
FA88588-96	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	76	%	44-130
FA88588-96	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	77	%	44-130
FA88588-97	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	43 [d]	%	44-130
FA88588-97	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	45	%	44-130
FA88588-98	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	85	%	44-130
FA88588-98	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	84	%	44-130
FA88588-99	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	43 [d]	%	44-130
FA88588-99	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	42 [d]	%	44-130
FA88588-100	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	78	%	44-130
FA88588-100	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	82	%	44-130
OP35305	SW846 8082A						
OP35305-BS1	12674-11-2	Aroclor 1016	BSP	REC	102	%	47-134
OP35305-BS1	11096-82-5	Aroclor 1260	BSP	REC	104	%	53-140
OP35305-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	93	%	44-130
OP35305-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	93	%	44-130
OP35305-MS	12674-11-2	Aroclor 1016	MS	REC	89	%	47-134
OP35305-MS	11096-82-5	Aroclor 1260	MS	REC	107	%	53-140
OP35305-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	81	%	44-130
OP35305-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	81	%	44-130
OP35305-MSD	12674-11-2	Aroclor 1016	MSD	REC	98	%	47-134
OP35305-MSD	12674-11-2	Aroclor 1016	MSD	RPD	9	%	30
OP35305-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP35305-MSD	11096-82-5	Aroclor 1260	MSD	REC	114	%	53-140
OP35305-MSD	11096-82-5	Aroclor 1260	MSD	RPD	5	%	30
OP35305-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	94	%	44-130
OP35305-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	93	%	44-130
OP35305-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	95	%	44-130
OP35305-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	104	%	44-130
FA88588-101	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	80	%	44-130
FA88588-101	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	80	%	44-130
FA88588-102	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	87	%	44-130
FA88588-102	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-102	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	89	%	44-130
FA88588-102	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	96	%	44-130
FA88588-103	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	86	%	44-130
FA88588-103	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	60	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA88588-103	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	86	%	44-130
FA88588-103	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	69	%	44-130
FA88588-104	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA88588-104	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	85	%	44-130
FA88588-104	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	90	%	44-130
FA88588-104	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
FA88588-105	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	74	%	44-130
FA88588-105	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	44-130
FA88588-105	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	95	%	44-130
FA88588-105	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	82	%	44-130
OP35412	SW846 8082A						
OP35412-BS1	12674-11-2	Aroclor 1016	BSP	REC	111	%	47-134
OP35412-BS1	11096-82-5	Aroclor 1260	BSP	REC	137	%	53-140
OP35412-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	137 [f]	%	44-130
OP35412-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	145 [f]	%	44-130
OP35412-MS	12674-11-2	Aroclor 1016	MS	REC	88	%	47-134
OP35412-MS	11096-82-5	Aroclor 1260	MS	REC	91	%	53-140
OP35412-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	77	%	44-130
OP35412-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	81	%	44-130
OP35412-MSD	12674-11-2	Aroclor 1016	MSD	REC	109	%	47-134
OP35412-MSD	12674-11-2	Aroclor 1016	MSD	RPD	14	%	30
OP35412-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP35412-MSD	11096-82-5	Aroclor 1260	MSD	REC	107	%	53-140
OP35412-MSD	11096-82-5	Aroclor 1260	MSD	RPD	10	%	30
OP35412-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	94	%	44-130
OP35412-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	99	%	44-130
OP35412-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	156 [b]	%	44-130
OP35412-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	175 [b]	%	44-130
FA88588-15	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	136 [a]	%	44-130
FA88588-15	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	136 [a]	%	44-130
FA88588-19	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	88	%	44-130
FA88588-19	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	93	%	44-130
OP35559	SW846 8082A						
OP35559-BS1	12674-11-2	Aroclor 1016	BSP	REC	128	%	47-134
OP35559-BS1	11096-82-5	Aroclor 1260	BSP	REC	138	%	53-140
OP35559-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	129	%	44-130
OP35559-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	139 [a]	%	44-130
OP35559-MS	12674-11-2	Aroclor 1016	MS	REC	103	%	47-134
OP35559-MS	11096-82-5	Aroclor 1260	MS	REC	99	%	53-140
OP35559-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	94	%	44-130
OP35559-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	98	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP35559-MSD	12674-11-2	Aroclor 1016	MSD	REC	126	%	47-134
OP35559-MSD	12674-11-2	Aroclor 1016	MSD	RPD	32	%	30
OP35559-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP35559-MSD	11096-82-5	Aroclor 1260	MSD	REC	116	%	53-140
OP35559-MSD	11096-82-5	Aroclor 1260	MSD	RPD	28	%	30
OP35559-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	114	%	44-130
OP35559-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	122	%	44-130
OP35559-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	106	%	44-130
OP35559-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	111	%	44-130
FA88588-31	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	118	%	44-130
FA88588-31	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	123	%	44-130
FA88588-41	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	95	%	44-130
FA88588-41	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	102	%	44-130
FA88588-42	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	89	%	44-130
FA88588-42	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	95	%	44-130
FA88588-43	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	90	%	44-130
FA88588-43	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA88588-44	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	105	%	44-130
FA88588-44	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	110	%	44-130
FA88588-45	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	114	%	44-130
FA88588-45	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	111	%	44-130
FA88588-46	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	127	%	44-130
FA88588-46	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	136 c	%	44-130
FA88588-47	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-47	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA88588-48	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	77	%	44-130
FA88588-48	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	86	%	44-130
FA88588-49	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA88588-49	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	105	%	44-130
FA88588-50	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	111	%	44-130
FA88588-50	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	118	%	44-130
FA88588-51	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	124	%	44-130
FA88588-51	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	131 c	%	44-130
FA88588-52	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	117	%	44-130
FA88588-52	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	127	%	44-130
FA88588-53	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA88588-53	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	107	%	44-130
FA88588-54	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	207 g	%	44-130
FA88588-54	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	145 c	%	44-130
FA88588-54	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	183 g	%	44-130
FA88588-54	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	159 g	%	44-130
FA88588-55	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	107	%	44-130
FA88588-55	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	149 c	%	44-130
FA88588-55	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	112	%	44-130
FA88588-55	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	128	%	44-130

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA88588-56	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-56	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	101	%	44-130
FA88588-57	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA88588-57	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	105	%	44-130
FA88588-58	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	126	%	44-130
FA88588-58	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	136 [c]	%	44-130
FA88588-59	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	98	%	44-130
FA88588-59	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
OP35560	SW846 8082A						
OP35560-BS1	12674-11-2	Aroclor 1016	BSP	REC	86	%	47-134
OP35560-BS1	12674-11-2	Aroclor 1016	BSP	REC	138	%	47-134
OP35560-BS1	11096-82-5	Aroclor 1260	BSP	REC	116	%	53-140
OP35560-BS1	11096-82-5	Aroclor 1260	BSP	REC	121 [h]	%	53-140
OP35560-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	103	%	44-130
OP35560-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	96	%	44-130
OP35560-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	104	%	44-130
OP35560-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	107	%	44-130
OP35560-MS	12674-11-2	Aroclor 1016	MS	REC	188	%	47-134
OP35560-MS	11096-82-5	Aroclor 1260	MS	REC	147	%	53-140
OP35560-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	121	%	44-130
OP35560-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	136	%	44-130
OP35560-MSD	12674-11-2	Aroclor 1016	MSD	REC	158	%	47-134
OP35560-MSD	12674-11-2	Aroclor 1016	MSD	RPD	12	%	30
OP35560-MSD	11097-69-1	Aroclor 1254	MSD	RPD	26	%	30
OP35560-MSD	11096-82-5	Aroclor 1260	MSD	REC	127	%	53-140
OP35560-MSD	11096-82-5	Aroclor 1260	MSD	RPD	10	%	30
OP35560-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	106	%	44-130
OP35560-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	118	%	44-130
OP35560-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	126	%	44-130
OP35560-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	138	%	44-130
OP35560-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	143 [a]	%	44-130
OP35560-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	139	%	44-130
FA88588-60	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	126	%	44-130
FA88588-60	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	131 [c]	%	44-130

(a) Outside program requirements.
(b) Outside of in house control limits.
(c) Outside program requirements due to matrix interference.
(d) Outside program requirements but within in house control limits.
(e) Outside program requirements but within in houes control limits.
(f) Outside progra requirements.
(g) Outside control limits due to matrix interference.
(h) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it

* Sample used for QC is not from job FA88588

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88588
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 08/31/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

being used for confirmation only.

* Sample used for QC is not from job FA88588

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35305-MB1	XX2470699.D	1	09/14/21	TC	09/09/21	OP35305	GXX7575

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-101, FA88588-102, FA88588-103, FA88588-104, FA88588-105

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	95%	24-152%
877-09-8	Tetrachloro-m-xylene	104%	24-152%
2051-24-3	Decachlorobiphenyl	117%	10-172%
2051-24-3	Decachlorobiphenyl	104%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35300-MB1	5G110121.D	1	09/11/21	RK	09/09/21	OP35300	G5G2784

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-1, FA88588-2, FA88588-3, FA88588-4, FA88588-5, FA88588-6, FA88588-7, FA88588-8, FA88588-9, FA88588-10, FA88588-11, FA88588-12, FA88588-13, FA88588-14, FA88588-16, FA88588-17, FA88588-18, FA88588-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	21%* [a]	24-152%
877-09-8	Tetrachloro-m-xylene	21%* [a]	24-152%
2051-24-3	Decachlorobiphenyl	24%	10-172%
2051-24-3	Decachlorobiphenyl	22%	10-172%

(a) Outside of in house control limits.

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35300-MB1	XX2470920.D	1	09/17/21	RK	09/09/21	OP35300	GXX7582

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-1, FA88588-2, FA88588-3, FA88588-4, FA88588-5, FA88588-6, FA88588-7, FA88588-8, FA88588-9, FA88588-10, FA88588-11, FA88588-12, FA88588-13, FA88588-14, FA88588-16, FA88588-17, FA88588-18, FA88588-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	14%* [a]	24-152%
877-09-8	Tetrachloro-m-xylene	19%* [a]	24-152%
2051-24-3	Decachlorobiphenyl	28%	10-172%
2051-24-3	Decachlorobiphenyl	27%	10-172%

(a) Outside of in house control limits.

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35301-MB1	5G110342.D	1	09/20/21	TL	09/14/21	OP35301	G5G2794

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-21, FA88588-22, FA88588-23, FA88588-24, FA88588-25, FA88588-26, FA88588-27, FA88588-28, FA88588-29, FA88588-30, FA88588-32, FA88588-33, FA88588-34, FA88588-35, FA88588-36, FA88588-37, FA88588-38, FA88588-39, FA88588-40

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	103%	24-152%
877-09-8	Tetrachloro-m-xylene	113%	24-152%
2051-24-3	Decachlorobiphenyl	118%	10-172%
2051-24-3	Decachlorobiphenyl	115%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35412-MB1	XX2470954.D	1	09/20/21	TC	09/15/21	OP35412	GXX7583

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-15, FA88588-19

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	156%* [a]	24-152%
877-09-8	Tetrachloro-m-xylene	175%* [a]	24-152%
2051-24-3	Decachlorobiphenyl	185%* [a]	10-172%
2051-24-3	Decachlorobiphenyl	174%* [a]	10-172%

(a) Outside of in house control limits.

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35303-MB1	XX2471167.D	1	09/23/21	TC	09/22/21	OP35303	GXX7587

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-61, FA88588-62, FA88588-63, FA88588-64, FA88588-65, FA88588-66, FA88588-67, FA88588-68, FA88588-69, FA88588-70, FA88588-71, FA88588-72, FA88588-73, FA88588-74, FA88588-75, FA88588-76, FA88588-77, FA88588-78, FA88588-79, FA88588-80

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	95%	24-152%
877-09-8	Tetrachloro-m-xylene	85%	24-152%
2051-24-3	Decachlorobiphenyl	94%	10-172%
2051-24-3	Decachlorobiphenyl	91%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35304-MB1	XX2472350.D	1	10/14/21	CP	10/12/21	OP35304	GXX7614

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-81, FA88588-82, FA88588-83, FA88588-84, FA88588-85, FA88588-86, FA88588-87, FA88588-88, FA88588-89, FA88588-90, FA88588-91, FA88588-92, FA88588-93, FA88588-94, FA88588-95, FA88588-96, FA88588-97, FA88588-98, FA88588-99, FA88588-100

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	96%	24-152%
877-09-8	Tetrachloro-m-xylene	98%	24-152%
2051-24-3	Decachlorobiphenyl	97%	10-172%
2051-24-3	Decachlorobiphenyl	97%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35559-MB1	XX2472615.D	1	10/19/21	RK	10/14/21	OP35559	GXX7620

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-31, FA88588-41, FA88588-42, FA88588-43, FA88588-44, FA88588-45, FA88588-46, FA88588-47, FA88588-48, FA88588-49, FA88588-50, FA88588-51, FA88588-52, FA88588-53, FA88588-54, FA88588-55, FA88588-56, FA88588-57, FA88588-58, FA88588-59

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	106%	24-152%
877-09-8	Tetrachloro-m-xylene	111%	24-152%
2051-24-3	Decachlorobiphenyl	129%	10-172%
2051-24-3	Decachlorobiphenyl	120%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35560-MB1	XX2472493.D	1	10/17/21	TL	10/15/21	OP35560	GXX7617

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-60

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	138%	24-152%
877-09-8	Tetrachloro-m-xylene	139%	24-152%
2051-24-3	Decachlorobiphenyl	156%	10-172%
2051-24-3	Decachlorobiphenyl	137%	10-172%

Method Blank Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35560-MB1	XX2472626.D	1	10/19/21	RK	10/15/21	OP35560	GXX7620

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-60

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	126%	24-152%
877-09-8	Tetrachloro-m-xylene	143% [a]	24-152%
2051-24-3	Decachlorobiphenyl	159%	10-172%
2051-24-3	Decachlorobiphenyl	153%	10-172%

(a) Outside program requirements.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35305-BS1	XX2470700.D	1	09/14/21	TC	09/09/21	OP35305	GXX7575

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-101, FA88588-102, FA88588-103, FA88588-104, FA88588-105

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	203	102	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	208	104	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	93%	24-152%
877-09-8	Tetrachloro-m-xylene	93%	24-152%
2051-24-3	Decachlorobiphenyl	106%	10-172%
2051-24-3	Decachlorobiphenyl	101%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35300-BS1	5G110122.D	1	09/11/21	RK	09/09/21	OP35300	G5G2784

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-1, FA88588-2, FA88588-3, FA88588-4, FA88588-5, FA88588-6, FA88588-7, FA88588-8, FA88588-9, FA88588-10, FA88588-11, FA88588-12, FA88588-13, FA88588-14, FA88588-16, FA88588-17, FA88588-18, FA88588-20

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	222	111	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	221	111	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	70%	24-152%
877-09-8	Tetrachloro-m-xylene	68%	24-152%
2051-24-3	Decachlorobiphenyl	98%	10-172%
2051-24-3	Decachlorobiphenyl	81%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35301-BS1	5G110343.D	1	09/20/21	TL	09/14/21	OP35301	G5G2794

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-21, FA88588-22, FA88588-23, FA88588-24, FA88588-25, FA88588-26, FA88588-27, FA88588-28, FA88588-29, FA88588-30, FA88588-32, FA88588-33, FA88588-34, FA88588-35, FA88588-36, FA88588-37, FA88588-38, FA88588-39, FA88588-40

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	238	119	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	270	135	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	106%	24-152%
877-09-8	Tetrachloro-m-xylene	115%	24-152%
2051-24-3	Decachlorobiphenyl	125%	10-172%
2051-24-3	Decachlorobiphenyl	109%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35412-BS1	XX2470955.D	1	09/20/21	TC	09/15/21	OP35412	GXX7583

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-15, FA88588-19

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	221	111	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	274	137	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	137% [a]	24-152%
877-09-8	Tetrachloro-m-xylene	145% [a]	24-152%
2051-24-3	Decachlorobiphenyl	147%	10-172%
2051-24-3	Decachlorobiphenyl	139%	10-172%

(a) Outside progra requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35303-BS1	XX2471168.D	1	09/23/21	TC	09/22/21	OP35303	GXX7587

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-61, FA88588-62, FA88588-63, FA88588-64, FA88588-65, FA88588-66, FA88588-67, FA88588-68, FA88588-69, FA88588-70, FA88588-71, FA88588-72, FA88588-73, FA88588-74, FA88588-75, FA88588-76, FA88588-77, FA88588-78, FA88588-79, FA88588-80

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	150	75	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	155	78	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	74%	24-152%
877-09-8	Tetrachloro-m-xylene	66%	24-152%
2051-24-3	Decachlorobiphenyl	73%	10-172%
2051-24-3	Decachlorobiphenyl	70%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35304-BS1	XX2472351.D	1	10/14/21	CP	10/12/21	OP35304	GXX7614

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-81, FA88588-82, FA88588-83, FA88588-84, FA88588-85, FA88588-86, FA88588-87, FA88588-88, FA88588-89, FA88588-90, FA88588-91, FA88588-92, FA88588-93, FA88588-94, FA88588-95, FA88588-96, FA88588-97, FA88588-98, FA88588-99, FA88588-100

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	187	94	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	185	93	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	94%	24-152%
877-09-8	Tetrachloro-m-xylene	97%	24-152%
2051-24-3	Decachlorobiphenyl	80%	10-172%
2051-24-3	Decachlorobiphenyl	94%	10-172%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35559-BS1	XX2472616.D	1	10/19/21	RK	10/14/21	OP35559	GXX7620

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-31, FA88588-41, FA88588-42, FA88588-43, FA88588-44, FA88588-45, FA88588-46, FA88588-47, FA88588-48, FA88588-49, FA88588-50, FA88588-51, FA88588-52, FA88588-53, FA88588-54, FA88588-55, FA88588-56, FA88588-57, FA88588-58, FA88588-59

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	256	128	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	276	138	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	129%	24-152%
877-09-8	Tetrachloro-m-xylene	139% [a]	24-152%
2051-24-3	Decachlorobiphenyl	157%	10-172%
2051-24-3	Decachlorobiphenyl	151%	10-172%

(a) Outside program requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35560-BS1	XX2472494.D	1	10/17/21	TL	10/15/21	OP35560	GXX7617

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-60

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	275	138	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	241	121 [a]	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	103%	24-152%
877-09-8	Tetrachloro-m-xylene	104%	24-152%
2051-24-3	Decachlorobiphenyl	108%	10-172%
2051-24-3	Decachlorobiphenyl	105%	10-172%

(a) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35560-BS1	XX2472627.D	1	10/19/21	RK	10/15/21	OP35560	GXX7620

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-60

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	172	86	39-169
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	231	116	41-171

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	96%	24-152%
877-09-8	Tetrachloro-m-xylene	107%	24-152%
2051-24-3	Decachlorobiphenyl	111%	10-172%
2051-24-3	Decachlorobiphenyl	108%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35305-MS	XX2470702.D	1	09/14/21	TC	09/09/21	OP35305	GXX7575
OP35305-MSD	XX2470703.D	1	09/14/21	TC	09/09/21	OP35305	GXX7575
FA88588-101	XX2470701.D	1	09/14/21	TC	09/09/21	OP35305	GXX7575

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-101, FA88588-102, FA88588-103, FA88588-104, FA88588-105

CAS No.	Compound	FA88588-101 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	54	U	252	224	89	249	245	98	9	14-200/59
11104-28-2	Aroclor 1221	54	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	54	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	54	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	54	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	54	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	54	U	252	269	107	249	284	114	5	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-101	Limits
877-09-8	Tetrachloro-m-xylene	81%	94%	80%	24-152%
877-09-8	Tetrachloro-m-xylene	81%	93%	80%	24-152%
2051-24-3	Decachlorobiphenyl	94%	101%	90%	10-172%
2051-24-3	Decachlorobiphenyl	91%	97%	88%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35300-MS	XX2470933.D	1	09/18/21	RK	09/09/21	OP35300	GXX7582
OP35300-MSD	XX2470934.D	1	09/18/21	RK	09/09/21	OP35300	GXX7582
FA88588-1	XX2470932.D	1	09/18/21	RK	09/09/21	OP35300	GXX7582

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-1, FA88588-2, FA88588-3, FA88588-4, FA88588-5, FA88588-6, FA88588-7, FA88588-8, FA88588-9, FA88588-10, FA88588-11, FA88588-12, FA88588-13, FA88588-14, FA88588-16, FA88588-17, FA88588-18, FA88588-20

CAS No.	Compound	FA88588-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	74	U	299	243	81	302	350	116	36 [a]	14-200/59
11104-28-2	Aroclor 1221	74	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	74	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	74	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	74	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	1140			785			1060		30	50-150/37
11096-82-5	Aroclor 1260	74	U	299	431	144 [a]	302	539	179 [a]	22	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-1	Limits
877-09-8	Tetrachloro-m-xylene	72%	94%	93%	24-152%
877-09-8	Tetrachloro-m-xylene	77%	102%	104%	24-152%
2051-24-3	Decachlorobiphenyl	89%	112%	126%	10-172%
2051-24-3	Decachlorobiphenyl	179%* [b]	178%* [b]	158%	10-172%

(a) Outside program requirements.
(b) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35301-MS	XX2471048.D	1	09/21/21	TC	09/14/21	OP35301	GXX7584
OP35301-MSD	XX2471049.D	1	09/21/21	TC	09/14/21	OP35301	GXX7584
FA88588-21	XX2471047.D	1	09/21/21	TC	09/14/21	OP35301	GXX7584

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-21, FA88588-22, FA88588-23, FA88588-24, FA88588-25, FA88588-26, FA88588-27, FA88588-28, FA88588-29, FA88588-30, FA88588-32, FA88588-33, FA88588-34, FA88588-35, FA88588-36, FA88588-37, FA88588-38, FA88588-39, FA88588-40

CAS No.	Compound	FA88588-21 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	60	U	236	198	84	238	273	115	32 [a]	14-200/59
11104-28-2	Aroclor 1221	60	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	60	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	60	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	60	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	89.2			96.6			137		35 [a]	50-150/37
11096-82-5	Aroclor 1260	60	U	236	320	136	238	371	156 [a]	15	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-21	Limits
877-09-8	Tetrachloro-m-xylene	99%	114%	97%	24-152%
877-09-8	Tetrachloro-m-xylene	103%	122%	101%	24-152%
2051-24-3	Decachlorobiphenyl	114%	125%	109%	10-172%
2051-24-3	Decachlorobiphenyl	132%	142%	118%	10-172%

(a) Outside program requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35412-MS	XX2470957.D	1	09/20/21	TC	09/15/21	OP35412	GXX7583
OP35412-MSD	XX2470958.D	1	09/20/21	TC	09/15/21	OP35412	GXX7583
FA88588-15	XX2470956.D	1	09/20/21	TC	09/15/21	OP35412	GXX7583

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-15, FA88588-19

CAS No.	Compound	FA88588-15 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	71	U	281	248	88	261	285	109	14	14-200/59
11104-28-2	Aroclor 1221	71	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	71	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	71	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	71	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	71	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	71	U	281	254	91	261	280	107	10	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-15	Limits
877-09-8	Tetrachloro-m-xylene	77%	94%	136% [a]	24-152%
877-09-8	Tetrachloro-m-xylene	81%	99%	136% [a]	24-152%
2051-24-3	Decachlorobiphenyl	79%	96%	145%	10-172%
2051-24-3	Decachlorobiphenyl	79%	101%	146%	10-172%

(a) Outside program requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35303-MS	XX2471243.D	1	09/24/21	RK	09/22/21	OP35303	GXX7589
OP35303-MSD	XX2471244.D	1	09/24/21	RK	09/22/21	OP35303	GXX7589
FA88588-61	XX2471242.D	1	09/24/21	RK	09/22/21	OP35303	GXX7589

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-61, FA88588-62, FA88588-63, FA88588-64, FA88588-65, FA88588-66, FA88588-67, FA88588-68, FA88588-69, FA88588-70, FA88588-71, FA88588-72, FA88588-73, FA88588-74, FA88588-75, FA88588-76, FA88588-77, FA88588-78, FA88588-79, FA88588-80

CAS No.	Compound	FA88588-61 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	55	U	217	156	72	221	179	81	14	14-200/59
11104-28-2	Aroclor 1221	55	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	55	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	55	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	55	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	55	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	55	U	217	193	89	221	230	104	17	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-61	Limits
877-09-8	Tetrachloro-m-xylene	68%	81%	91%	24-152%
877-09-8	Tetrachloro-m-xylene	74%	81%	91%	24-152%
2051-24-3	Decachlorobiphenyl	81%	93%	103%	10-172%
2051-24-3	Decachlorobiphenyl	81%	92%	104%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35304-MS	XX2472357.D	1	10/14/21	CP	10/12/21	OP35304	GXX7614
OP35304-MSD	XX2472358.D	1	10/14/21	CP	10/12/21	OP35304	GXX7614
FA88588-81	XX2472356.D	1	10/14/21	CP	10/12/21	OP35304	GXX7614

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-81, FA88588-82, FA88588-83, FA88588-84, FA88588-85, FA88588-86, FA88588-87, FA88588-88, FA88588-89, FA88588-90, FA88588-91, FA88588-92, FA88588-93, FA88588-94, FA88588-95, FA88588-96, FA88588-97, FA88588-98, FA88588-99, FA88588-100

CAS No.	Compound	FA88588-81 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	56	U	239	158	66	236	279	118	55 [a]	14-200/59
11104-28-2	Aroclor 1221	56	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	56	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	56	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	56	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	56	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	539		239	596	24 [a]	236	954	176 [a]	46 [a]	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-81	Limits
877-09-8	Tetrachloro-m-xylene	59%	96%	45%	24-152%
877-09-8	Tetrachloro-m-xylene	57%	97%	46%	24-152%
2051-24-3	Decachlorobiphenyl	58%	97%	90%	10-172%
2051-24-3	Decachlorobiphenyl	59%	95%	93%	10-172%

(a) Outside program requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35559-MS	XX2472578.D	1	10/18/21	TC	10/14/21	OP35559	GXX7619
OP35559-MSD	XX2472579.D	1	10/18/21	TC	10/14/21	OP35559	GXX7619
FA88588-31	XX2472577.D	1	10/18/21	TC	10/14/21	OP35559	GXX7619

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-31, FA88588-41, FA88588-42, FA88588-43, FA88588-44, FA88588-45, FA88588-46, FA88588-47, FA88588-48, FA88588-49, FA88588-50, FA88588-51, FA88588-52, FA88588-53, FA88588-54, FA88588-55, FA88588-56, FA88588-57, FA88588-58, FA88588-59

CAS No.	Compound	FA88588-31 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	66	U	224	232	103	254	320	126	32	14-200/59
11104-28-2	Aroclor 1221	66	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	66	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	66	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	66	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	66	U		ND			ND		nc	50-150/37
11096-82-5	Aroclor 1260	66	U	224	223	99	254	295	116	28	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-31	Limits
877-09-8	Tetrachloro-m-xylene	94%	114%	118%	24-152%
877-09-8	Tetrachloro-m-xylene	98%	122%	123%	24-152%
2051-24-3	Decachlorobiphenyl	99%	124%	132%	10-172%
2051-24-3	Decachlorobiphenyl	95%	120%	123%	10-172%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88588
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP35560-MS	XX2472629.D	1	10/19/21	RK	10/15/21	OP35560	GXX7620
OP35560-MSD	XX2472630.D	1	10/19/21	RK	10/15/21	OP35560	GXX7620
FA88588-60	XX2472628.D	1	10/19/21	RK	10/15/21	OP35560	GXX7620

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA88588-60

CAS No.	Compound	FA88588-60 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	64	U	247	464	188	259	410	158	12	14-200/59
11104-28-2	Aroclor 1221	64	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	64	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	64	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	64	U		ND			ND		nc	50-150/25
11097-69-1	Aroclor 1254	89.3			156			120		26	50-150/37
11096-82-5	Aroclor 1260	64	U	247	363	147	259	329	127	10	10-200/59

CAS No.	Surrogate Recoveries	MS	MSD	FA88588-60	Limits
877-09-8	Tetrachloro-m-xylene	121%	106%	126%	24-152%
877-09-8	Tetrachloro-m-xylene	136%	118%	131% [a]	24-152%
2051-24-3	Decachlorobiphenyl	143%	123%	145%	10-172%
2051-24-3	Decachlorobiphenyl	136%	121%	146%	10-172%

(a) Outside program requirements due to matrix interference.

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.12.04

SGS Job Number: FA90505

Sampling Date: 11/03/21

Report to:

HGL, Inc
2405 N Courtenay Pkwy Suite 203
Merritt Island, FL 32953
drivers@hgl.com

ATTN: Denise Rivers

Total number of pages in report: **109**

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA90505

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA90505-1	11/03/21	09:05	HF	11/04/21	SO	Soil	SAEE-SB0296-005.0-20211103
FA90505-2	11/03/21	09:07	HF	11/04/21	SO	Soil	SAEE-SB0296-006.0-20211103
FA90505-3	11/03/21	09:35	HF	11/04/21	SO	Soil	SAEE-SB0325-004.0-20211103
FA90505-4	11/03/21	09:37	HF	11/04/21	SO	Soil	SAEE-SB0325-005.0-20211103
FA90505-5	11/03/21	09:09	HF	11/04/21	SO	Soil	SAEE-SB0326-004.0-20211103
FA90505-6	11/03/21	09:11	HF	11/04/21	SO	Soil	SAEE-SB0326-005.0-20211103
FA90505-7	11/03/21	09:38	HF	11/04/21	SO	Soil	SAEE-SB0327-004.0-20211103
FA90505-8	11/03/21	09:39	HF	11/04/21	SO	Soil	SAEE-SB0327-005.0-20211103
FA90505-9	11/03/21	09:58	HF	11/04/21	SO	Soil	SAEE-SB0356-004.0-20211103
FA90505-10	11/03/21	09:59	HF	11/04/21	SO	Soil	SAEE-SB0356-005.0-20211103
FA90505-11	11/03/21	10:07	HF	11/04/21	SO	Soil	SAEE-SB0362-004.0-20211103
FA90505-12	11/03/21	10:08	HF	11/04/21	SO	Soil	SAEE-SB0362-005.0-20211103
FA90505-13	11/03/21	10:17	HF	11/04/21	SO	Soil	SAEE-SB0351-000.5-20211103

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA90505

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA90505-14	11/03/21	10:18	HF	11/04/21	SO	Soil	SAEE-SB0351-001.0-20211103
FA90505-15	11/03/21	10:19	HF	11/04/21	SO	Soil	SAEE-SB0351-002.0-20211103
FA90505-16	11/03/21	10:20	HF	11/04/21	SO	Soil	SAEE-SB0351-003.0-20211103
FA90505-17	11/03/21	10:21	HF	11/04/21	SO	Soil	SAEE-SB0351-004.0-20211103
FA90505-18	11/03/21	10:37	HF	11/04/21	SO	Soil	SAEE-SB0372-000.5-20211103
FA90505-19	11/03/21	10:38	HF	11/04/21	SO	Soil	SAEE-SB0372-001.0-20211103
FA90505-20	11/03/21	10:39	HF	11/04/21	SO	Soil	SAEE-SB0372-002.0-20211103
FA90505-21	11/03/21	10:40	HF	11/04/21	SO	Soil	SAEE-SB0372-003.0-20211103
FA90505-22	11/03/21	10:41	HF	11/04/21	SO	Soil	SAEE-SB0372-004.0-20211103
FA90505-23	11/03/21	10:51	HF	11/04/21	SO	Soil	SAEE-SB0373-000.5-20211103
FA90505-24	11/03/21	10:52	HF	11/04/21	SO	Soil	SAEE-SB0373-001.0-20211103
FA90505-25	11/03/21	10:53	HF	11/04/21	SO	Soil	SAEE-SB0373-002.0-20211103
FA90505-26	11/03/21	10:54	HF	11/04/21	SO	Soil	SAEE-SB0373-003.0-20211103

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA90505

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA90505-27	11/03/21	10:55	HF	11/04/21	SO	Soil	SAEE-SB0373-004.0-20211103
FA90505-28	11/03/21	11:09	HF	11/04/21	SO	Soil	SAEE-SB0363-000.5-20211103
FA90505-29	11/03/21	11:10	HF	11/04/21	SO	Soil	SAEE-SB0363-001.0-20211103
FA90505-30	11/03/21	11:11	HF	11/04/21	SO	Soil	SAEE-SB0363-002.0-20211103
FA90505-31	11/03/21	11:12	HF	11/04/21	SO	Soil	SAEE-SB0363-003.0-20211103
FA90505-32	11/03/21	11:23	HF	11/04/21	SO	Soil	SAEE-SB0364-000.5-20211103
FA90505-33	11/03/21	11:24	HF	11/04/21	SO	Soil	SAEE-SB0364-001.0-20211103
FA90505-34	11/03/21	11:25	HF	11/04/21	SO	Soil	SAEE-SB0364-002.0-20211103
FA90505-35	11/03/21	11:26	HF	11/04/21	SO	Soil	SAEE-SB0364-003.0-20211103
FA90505-36	11/03/21	11:31	HF	11/04/21	SO	Soil	SAEE-SB0365-000.5-20211103
FA90505-37	11/03/21	11:32	HF	11/04/21	SO	Soil	SAEE-SB0365-001.0-20211103
FA90505-38	11/03/21	11:33	HF	11/04/21	SO	Soil	SAEE-SB0365-002.0-20211103
FA90505-39	11/03/21	11:34	HF	11/04/21	SO	Soil	SAEE-SB0365-003.0-20211103

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA90505

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA90505-40	11/03/21	11:50	HF	11/04/21	SO	Soil	SAEE-SB0366-000.5-20211103
FA90505-41	11/03/21	11:51	HF	11/04/21	SO	Soil	SAEE-SB0366-001.0-20211103
FA90505-42	11/03/21	11:52	HF	11/04/21	SO	Soil	SAEE-SB0366-002.0-20211103
FA90505-43	11/03/21	11:53	HF	11/04/21	SO	Soil	SAEE-SB0366-003.0-20211103
FA90505-44	11/03/21	11:59	HF	11/04/21	SO	Soil	SAEE-SB0367-000.5-20211103
FA90505-45	11/03/21	12:00	HF	11/04/21	SO	Soil	SAEE-SB0367-001.0-20211103
FA90505-46	11/03/21	12:01	HF	11/04/21	SO	Soil	SAEE-SB0367-002.0-20211103
FA90505-47	11/03/21	12:02	HF	11/04/21	SO	Soil	SAEE-SB0367-003.0-20211103
FA90505-48	11/03/21	12:13	HF	11/04/21	SO	Soil	SAEE-SB0368-000.5-20211103
FA90505-49	11/03/21	12:14	HF	11/04/21	SO	Soil	SAEE-SB0368-001.0-20211103
FA90505-50	11/03/21	12:15	HF	11/04/21	SO	Soil	SAEE-SB0368-002.0-20211103
FA90505-51	11/03/21	12:23	HF	11/04/21	SO	Soil	SAEE-SB0369-000.5-20211103
FA90505-52	11/03/21	12:24	HF	11/04/21	SO	Soil	SAEE-SB0369-001.0-20211103

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA90505

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA90505-53	11/03/21	12:25	HF	11/04/21	SO	Soil	SAEE-SB0369-002.0-20211103
FA90505-54	11/03/21	12:33	HF	11/04/21	SO	Soil	SAEE-SB0370-000.5-20211103
FA90505-55	11/03/21	12:34	HF	11/04/21	SO	Soil	SAEE-SB0370-001.0-20211103
FA90505-56	11/03/21	12:35	HF	11/04/21	SO	Soil	SAEE-SB0370-002.0-20211103
FA90505-57	11/03/21	12:45	HF	11/04/21	SO	Soil	SAEE-SB0371-000.5-20211103
FA90505-58	11/03/21	12:46	HF	11/04/21	SO	Soil	SAEE-SB0371-001.0-20211103
FA90505-59	11/03/21	12:47	HF	11/04/21	SO	Soil	SAEE-SB0371-002.0-20211103

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA90505

Site: TQN 118 NASA PRLs; KSC, FL **Report Date** 12/17/2021 3:03:03

On 11/04/2021, 59 Sample(s), 0 Trip Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA90505 was Assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP36639

FA90505-1: Analysis performed at SGS Dayton, NJ.
FA90505-2: Analysis performed at SGS Dayton, NJ.
FA90505-3: Analysis performed at SGS Dayton, NJ.
FA90505-4: Analysis performed at SGS Dayton, NJ.
FA90505-5: Analysis performed at SGS Dayton, NJ.
FA90505-6: Analysis performed at SGS Dayton, NJ.
FA90505-7: Analysis performed at SGS Dayton, NJ.
FA90505-8: Analysis performed at SGS Dayton, NJ.
FA90505-9: Analysis performed at SGS Dayton, NJ.
FA90505-10: Analysis performed at SGS Dayton, NJ.
FA90505-11: Analysis performed at SGS Dayton, NJ.
FA90505-12: Analysis performed at SGS Dayton, NJ.
FA90505-13: Analysis performed at SGS Dayton, NJ.
FA90505-14: Analysis performed at SGS Dayton, NJ.
FA90505-15: Analysis performed at SGS Dayton, NJ.
FA90505-16: Analysis performed at SGS Dayton, NJ.
FA90505-17: Analysis performed at SGS Dayton, NJ.
FA90505-18: Analysis performed at SGS Dayton, NJ.
FA90505-19: Analysis performed at SGS Dayton, NJ.
FA90505-20: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP36640

FA90505-21: Analysis performed at SGS Dayton, NJ.
FA90505-22: Analysis performed at SGS Dayton, NJ.
FA90505-23: Analysis performed at SGS Dayton, NJ.
FA90505-24: Analysis performed at SGS Dayton, NJ.
FA90505-25: Analysis performed at SGS Dayton, NJ.
FA90505-26: Analysis performed at SGS Dayton, NJ.
FA90505-27: Analysis performed at SGS Dayton, NJ.
FA90505-28: Analysis performed at SGS Dayton, NJ.
FA90505-29: Analysis performed at SGS Dayton, NJ.
FA90505-30: Analysis performed at SGS Dayton, NJ.
FA90505-31: Analysis performed at SGS Dayton, NJ.
FA90505-32: Analysis performed at SGS Dayton, NJ.
FA90505-33: Analysis performed at SGS Dayton, NJ.
FA90505-34: Analysis performed at SGS Dayton, NJ.
FA90505-35: Analysis performed at SGS Dayton, NJ.
FA90505-36: Analysis performed at SGS Dayton, NJ.
FA90505-37: Analysis performed at SGS Dayton, NJ.
FA90505-38: Analysis performed at SGS Dayton, NJ.
FA90505-39: Analysis performed at SGS Dayton, NJ.
FA90505-40: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP36641

FA90505-41: Analysis performed at SGS Dayton, NJ.
FA90505-42: Analysis performed at SGS Dayton, NJ.
FA90505-43: Analysis performed at SGS Dayton, NJ.
FA90505-44: Analysis performed at SGS Dayton, NJ.
FA90505-45: Analysis performed at SGS Dayton, NJ.
FA90505-46: Analysis performed at SGS Dayton, NJ.
FA90505-47: Analysis performed at SGS Dayton, NJ.
FA90505-48: Analysis performed at SGS Dayton, NJ.
FA90505-49: Analysis performed at SGS Dayton, NJ.
FA90505-50: Analysis performed at SGS Dayton, NJ.
FA90505-51: Analysis performed at SGS Dayton, NJ.
FA90505-52: Analysis performed at SGS Dayton, NJ.
FA90505-53: Analysis performed at SGS Dayton, NJ.
FA90505-54: Analysis performed at SGS Dayton, NJ.
FA90505-55: Analysis performed at SGS Dayton, NJ.
FA90505-56: Analysis performed at SGS Dayton, NJ.
FA90505-57: Analysis performed at SGS Dayton, NJ.
FA90505-58: Analysis performed at SGS Dayton, NJ.
FA90505-59: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN23904

FA90505-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-5 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN23906

FA90505-6 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-7 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-8 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-9 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-10 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-11 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-12 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-13 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-14 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-15 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-20 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-21 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-22 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-23 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-24 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-25 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN23907

FA90505-26 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-27 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-28 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-29 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-30 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA90505-31 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-32 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-33 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-34 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-35 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-36 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-37 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-38 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-39 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-40 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-41 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-42 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-43 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-44 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-45 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN23908

FA90505-46 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-47 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-48 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-49 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-50 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-51 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-52 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-53 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-54 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-55 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-56 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-57 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-58 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA90505-59 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____
Ariel Hartney, Client Services (signature on file)

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FA90505
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	12/17/2021 9:21:52 A

On 11/09/2021, 59 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA90505 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP36639

- All samples were extracted within the recommended method holding time.
- Sample(s) FA90505-1MS, FA90505-1MSD, OP36639-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA90505-9 have surrogates outside control limits. Probable cause due to matrix interference.
- FA90505-16: Confirmation run.
- FA90505-15: Confirmation run.
- FA90505-12: Confirmation run.
- FA90505-17: Confirmation run.
- FA90505-13: Confirmation run.
- FA90505-14: Confirmation run.
- FA90505-17 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-16 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-13 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-15 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-1 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-3 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-16 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-19 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- OP36639-MB1 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-2 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-4 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-7 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-11 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-9 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FA90505-9 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-9 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP36640

- All samples were extracted within the recommended method holding time.
- Sample(s) FA90505-21MS, FA90505-21MSD, OP36640-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP36640

- Matrix Spike Recovery(s) for Aroclor 1260 are outside control limits. Outside control limits due to matrix interference.
- FA90505-23 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-31 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-27 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- OP36640-MSD for Aroclor 1260: Outside program requirements but within in house control limits.
- FA90505-21 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-22 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.
- FA90505-39 for Tetrachloro-m-xylene: Outside program requirements but within in house control limits.

Matrix: SO **Batch ID:** OP36641

- All samples were extracted within the recommended method holding time.
- Sample(s) FA90505-41MS, FA90505-41MSD, OP36641-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN23904

- Sample(s) JD35136-21DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN23906

- Sample(s) FA90505-6DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN23907

- Sample(s) FA90505-27DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN23908

- Sample(s) FA90505-46DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-1	**SAEE-SB0296-005.0-20211103**					
Aroclor 1254 [a]		51.9 J	58	46	ug/kg	SW846 8082A
FA90505-2	**SAEE-SB0296-006.0-20211103**					
Aroclor 1254 [a]		82.6	68	54	ug/kg	SW846 8082A
FA90505-3	**SAEE-SB0325-004.0-20211103**					
No hits reported in this sample.						
FA90505-4	**SAEE-SB0325-005.0-20211103**					
No hits reported in this sample.						
FA90505-5	**SAEE-SB0326-004.0-20211103**					
No hits reported in this sample.						
FA90505-6	**SAEE-SB0326-005.0-20211103**					
No hits reported in this sample.						
FA90505-7	**SAEE-SB0327-004.0-20211103**					
No hits reported in this sample.						
FA90505-8	**SAEE-SB0327-005.0-20211103**					
No hits reported in this sample.						
FA90505-9	**SAEE-SB0356-004.0-20211103**					
Aroclor 1260 [a]		33100	620	500	ug/kg	SW846 8082A
FA90505-10	**SAEE-SB0356-005.0-20211103**					
Aroclor 1260 [a]		3570	310	250	ug/kg	SW846 8082A
FA90505-11	**SAEE-SB0362-004.0-20211103**					
Aroclor 1260 [a]		87.3	60	48	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-12	**SAEE-SB0362-005.0-20211103**					
No hits reported in this sample.						
FA90505-13	**SAEE-SB0351-000.5-20211103**					
No hits reported in this sample.						
FA90505-14	**SAEE-SB0351-001.0-20211103**					
No hits reported in this sample.						
FA90505-15	**SAEE-SB0351-002.0-20211103**					
No hits reported in this sample.						
FA90505-16	**SAEE-SB0351-003.0-20211103**					
No hits reported in this sample.						
FA90505-17	**SAEE-SB0351-004.0-20211103**					
No hits reported in this sample.						
FA90505-18	**SAEE-SB0372-000.5-20211103**					
Aroclor 1254 [a]		64.4 J	65	52	ug/kg	SW846 8082A
FA90505-19	**SAEE-SB0372-001.0-20211103**					
No hits reported in this sample.						
FA90505-20	**SAEE-SB0372-002.0-20211103**					
No hits reported in this sample.						
FA90505-21	**SAEE-SB0372-003.0-20211103**					
No hits reported in this sample.						
FA90505-22	**SAEE-SB0372-004.0-20211103**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-23	**SAEE-SB0373-000.5-20211103**					
Aroclor 1254 [a]		86.0	40	32	ug/kg	SW846 8082A
FA90505-24	**SAEE-SB0373-001.0-20211103**					
No hits reported in this sample.						
FA90505-25	**SAEE-SB0373-002.0-20211103**					
No hits reported in this sample.						
FA90505-26	**SAEE-SB0373-003.0-20211103**					
No hits reported in this sample.						
FA90505-27	**SAEE-SB0373-004.0-20211103**					
No hits reported in this sample.						
FA90505-28	**SAEE-SB0363-000.5-20211103**					
No hits reported in this sample.						
FA90505-29	**SAEE-SB0363-001.0-20211103**					
No hits reported in this sample.						
FA90505-30	**SAEE-SB0363-002.0-20211103**					
No hits reported in this sample.						
FA90505-31	**SAEE-SB0363-003.0-20211103**					
No hits reported in this sample.						
FA90505-32	**SAEE-SB0364-000.5-20211103**					
Aroclor 1254 [a]		29.8 J	44	35	ug/kg	SW846 8082A
FA90505-33	**SAEE-SB0364-001.0-20211103**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-34	**SAEE-SB0364-002.0-20211103**					
Aroclor 1254 [a]		30.8 J	40	32	ug/kg	SW846 8082A
FA90505-35	**SAEE-SB0364-003.0-20211103**					
Aroclor 1254 [a]		27.9 J	43	34	ug/kg	SW846 8082A
FA90505-36	**SAEE-SB0365-000.5-20211103**					
Aroclor 1254 [a]		30.4 J	42	34	ug/kg	SW846 8082A
FA90505-37	**SAEE-SB0365-001.0-20211103**					
No hits reported in this sample.						
FA90505-38	**SAEE-SB0365-002.0-20211103**					
No hits reported in this sample.						
FA90505-39	**SAEE-SB0365-003.0-20211103**					
No hits reported in this sample.						
FA90505-40	**SAEE-SB0366-000.5-20211103**					
Aroclor 1254 [a]		52.1	49	39	ug/kg	SW846 8082A
FA90505-41	**SAEE-SB0366-001.0-20211103**					
No hits reported in this sample.						
FA90505-42	**SAEE-SB0366-002.0-20211103**					
No hits reported in this sample.						
FA90505-43	**SAEE-SB0366-003.0-20211103**					
No hits reported in this sample.						
FA90505-44	**SAEE-SB0367-000.5-20211103**					
Aroclor 1254 [a]		80.6	73	59	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-45	**SAEE-SB0367-001.0-20211103**					
No hits reported in this sample.						
FA90505-46	**SAEE-SB0367-002.0-20211103**					
No hits reported in this sample.						
FA90505-47	**SAEE-SB0367-003.0-20211103**					
No hits reported in this sample.						
FA90505-48	**SAEE-SB0368-000.5-20211103**					
Aroclor 1254 [a]		62.7 J	63	50	ug/kg	SW846 8082A
FA90505-49	**SAEE-SB0368-001.0-20211103**					
No hits reported in this sample.						
FA90505-50	**SAEE-SB0368-002.0-20211103**					
No hits reported in this sample.						
FA90505-51	**SAEE-SB0369-000.5-20211103**					
Aroclor 1254 [a]		429	62	50	ug/kg	SW846 8082A
FA90505-52	**SAEE-SB0369-001.0-20211103**					
No hits reported in this sample.						
FA90505-53	**SAEE-SB0369-002.0-20211103**					
No hits reported in this sample.						
FA90505-54	**SAEE-SB0370-000.5-20211103**					
Aroclor 1254 [a]		78.6	59	47	ug/kg	SW846 8082A
FA90505-55	**SAEE-SB0370-001.0-20211103**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA90505-56	**SAEE-SB0370-002.0-20211103**					
No hits reported in this sample.						
FA90505-57	**SAEE-SB0371-000.5-20211103**					
Aroclor 1254 [a]		409	63	51	ug/kg	SW846 8082A
FA90505-58	**SAEE-SB0371-001.0-20211103**					
Aroclor 1254 [a]		219	59	47	ug/kg	SW846 8082A
FA90505-59	**SAEE-SB0371-002.0-20211103**					
No hits reported in this sample.						

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0296-005.0-20211103		
Lab Sample ID:	FA90505-1	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475899.D	1	12/16/21 08:58	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	51.9	58	46	31	ug/kg	J
11096-82-5	Aroclor 1260	46 U	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	131% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	142% [b]		10-163%
2051-24-3	Decachlorobiphenyl	151%		10-215%
2051-24-3	Decachlorobiphenyl	153%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0296-006.0-20211103		
Lab Sample ID:	FA90505-2	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475902.D	1	12/16/21 09:50	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	32	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	61	ug/kg	
11097-69-1	Aroclor 1254	82.6	68	54	37	ug/kg	
11096-82-5	Aroclor 1260	54 U	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	147% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	157% [b]		10-163%
2051-24-3	Decachlorobiphenyl	153%		10-215%
2051-24-3	Decachlorobiphenyl	180%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-004.0-20211103		
Lab Sample ID:	FA90505-3	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112647.D	1	12/06/21 23:08	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		24-152%
877-09-8	Tetrachloro-m-xylene	132% [b]		24-152%
2051-24-3	Decachlorobiphenyl	133%		10-172%
2051-24-3	Decachlorobiphenyl	141%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0325-005.0-20211103
Lab Sample ID: FA90505-4
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 11/03/21
Date Received: 11/04/21
Percent Solids: 72.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112648.D	1	12/06/21 23:41	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	52 U	66	52	31	ug/kg	
11104-28-2	Aroclor 1221	52 U	66	52	41	ug/kg	
11141-16-5	Aroclor 1232	52 U	66	52	42	ug/kg	
53469-21-9	Aroclor 1242	52 U	66	52	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	52 U	66	52	35	ug/kg	
11096-82-5	Aroclor 1260	52 U	66	52	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		24-152%
877-09-8	Tetrachloro-m-xylene	135% [b]		24-152%
2051-24-3	Decachlorobiphenyl	126%		10-172%
2051-24-3	Decachlorobiphenyl	130%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-004.0-20211103		
Lab Sample ID:	FA90505-5	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112649.D	1	12/07/21 00:15	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	116%		24-152%
877-09-8	Tetrachloro-m-xylene	126%		24-152%
2051-24-3	Decachlorobiphenyl	128%		10-172%
2051-24-3	Decachlorobiphenyl	127%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-005.0-20211103		
Lab Sample ID:	FA90505-6	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475844.D	1	12/15/21 17:01	ANJ	11/16/21 17:00	N:OP36639	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	114%		10-163%
877-09-8	Tetrachloro-m-xylene	121%		10-163%
2051-24-3	Decachlorobiphenyl	112%		10-215%
2051-24-3	Decachlorobiphenyl	116%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-004.0-20211103		
Lab Sample ID:	FA90505-7	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112650.D	1	12/07/21 00:49	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	130%		24-152%
877-09-8	Tetrachloro-m-xylene	151% [b]		24-152%
2051-24-3	Decachlorobiphenyl	151%		10-172%
2051-24-3	Decachlorobiphenyl	153%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0327-005.0-20211103		
Lab Sample ID:	FA90505-8	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112651.D	1	12/07/21 01:22	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	51 U	64	51	35	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		24-152%
877-09-8	Tetrachloro-m-xylene	122%		24-152%
2051-24-3	Decachlorobiphenyl	117%		10-172%
2051-24-3	Decachlorobiphenyl	127%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-004.0-20211103		
Lab Sample ID:	FA90505-9	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112662.D	1	12/07/21 07:32	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2 [a]	5G112293.D	10	11/22/21 11:10	ANJ	11/16/21 17:00	N:OP36639	N:G5G2849
Run #3 [a]	5G112663.D	10	12/07/21 08:05	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2	10.6 g	10.0 ml
Run #3	10.6 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	500 U [b]	620	500	290	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	38	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	62	58	55	ug/kg	
11097-69-1	Aroclor 1254	50 U	62	50	33	ug/kg	
11096-82-5	Aroclor 1260	33100 [c]	620	500	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
877-09-8	Tetrachloro-m-xylene	129%	120%	130%	24-152%
877-09-8	Tetrachloro-m-xylene	145% [d]	119%	128%	24-152%
2051-24-3	Decachlorobiphenyl	150%	144%	160%	10-172%
2051-24-3	Decachlorobiphenyl	210% [e]	122%	204% [e]	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Result is from Run# 3
(d) Outside program requirements but within in house control limits.
(e) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-005.0-20211103		
Lab Sample ID:	FA90505-10	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112652.D	1	12/07/21 01:56	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2 [a]	XX2475911.D	5	12/16/21 12:26	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2	10.6 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	63	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	63	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	63	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	63	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	63	50	34	ug/kg	
11096-82-5	Aroclor 1260	3570 [b]	310	250	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	115%	116%	10-163%
877-09-8	Tetrachloro-m-xylene	127%	119%	10-163%
2051-24-3	Decachlorobiphenyl	113%	150%	10-215%
2051-24-3	Decachlorobiphenyl	143%	119%	10-215%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-004.0-20211103		
Lab Sample ID:	FA90505-11	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112653.D	1	12/07/21 02:30	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	87.3	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	124%		24-152%
877-09-8	Tetrachloro-m-xylene	150% [b]		24-152%
2051-24-3	Decachlorobiphenyl	141%		10-172%
2051-24-3	Decachlorobiphenyl	153%		10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-005.0-20211103		
Lab Sample ID:	FA90505-12	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112233.D	1	11/18/21 17:24	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112656.D	1	12/07/21 04:09	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2	11.1 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	61	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	61	48	38	ug/kg	
11141-16-5	Aroclor 1232	48 U	61	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	61	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	61	48	33	ug/kg	
11096-82-5	Aroclor 1260	48 U	61	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%	117%	24-152%
877-09-8	Tetrachloro-m-xylene	104%	128%	24-152%
2051-24-3	Decachlorobiphenyl	93%	124%	10-172%
2051-24-3	Decachlorobiphenyl	94%	134%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0351-000.5-20211103		
Lab Sample ID:	FA90505-13	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112234.D	1	11/18/21 17:58	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112657.D	1	12/07/21 04:43	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2	10.3 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%	119%	24-152%
877-09-8	Tetrachloro-m-xylene	117%	145% [c]	24-152%
2051-24-3	Decachlorobiphenyl	102%	132%	10-172%
2051-24-3	Decachlorobiphenyl	107%	142%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Confirmation run. Analysis performed at SGS Dayton, NJ.
(c) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0351-001.0-20211103		
Lab Sample ID:	FA90505-14	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112235.D	1	11/18/21 18:31	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112658.D	1	12/07/21 05:17	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2	10.9 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	31	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%	109%	24-152%
877-09-8	Tetrachloro-m-xylene	98%	121%	24-152%
2051-24-3	Decachlorobiphenyl	92%	123%	10-172%
2051-24-3	Decachlorobiphenyl	88%	117%	10-172%

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

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0351-002.0-20211103		
Lab Sample ID:	FA90505-15	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112236.D	1	11/18/21 19:05	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112659.D	1	12/07/21 05:50	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2	11.1 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%	116%	24-152%
877-09-8	Tetrachloro-m-xylene	114%	137% [c]	24-152%
2051-24-3	Decachlorobiphenyl	100%	131%	10-172%
2051-24-3	Decachlorobiphenyl	100%	127%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Confirmation run. Analysis performed at SGS Dayton, NJ.
(c) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0351-003.0-20211103		
Lab Sample ID:	FA90505-16	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112237.D	1	11/18/21 19:39	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112660.D	1	12/07/21 06:24	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2	10.7 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	54	44	25	ug/kg	
11104-28-2	Aroclor 1221	44 U	54	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	54	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	54	44	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	54	44	29	ug/kg	
11096-82-5	Aroclor 1260	44 U	54	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	27% [c]	30% [c]	24-152%
877-09-8	Tetrachloro-m-xylene	28% [c]	32% [c]	24-152%
2051-24-3	Decachlorobiphenyl	52%	68%	10-172%
2051-24-3	Decachlorobiphenyl	48%	64%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Confirmation run. Analysis performed at SGS Dayton, NJ.
(c) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0351-004.0-20211103		
Lab Sample ID:	FA90505-17	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G112238.D	1	11/18/21 20:12	ANJ	11/16/21 17:00	N:OP36639	N:G5G2848
Run #2 [b]	5G112661.D	1	12/07/21 06:58	ANJ	11/16/21 17:00	N:OP36639	N:G5G2862

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2	10.7 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%	126%	24-152%
877-09-8	Tetrachloro-m-xylene	110%	136% [c]	24-152%
2051-24-3	Decachlorobiphenyl	103%	139%	10-172%
2051-24-3	Decachlorobiphenyl	107%	138%	10-172%

(a) Analysis performed at SGS Dayton, NJ.
(b) Confirmation run. Analysis performed at SGS Dayton, NJ.
(c) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0372-000.5-20211103		
Lab Sample ID:	FA90505-18	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	72.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475903.D	1	12/16/21 10:07	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	52 U	65	52	30	ug/kg	
11104-28-2	Aroclor 1221	52 U	65	52	40	ug/kg	
11141-16-5	Aroclor 1232	52 U	65	52	41	ug/kg	
53469-21-9	Aroclor 1242	52 U	65	52	27	ug/kg	
12672-29-6	Aroclor 1248	61 U	65	61	58	ug/kg	
11097-69-1	Aroclor 1254	64.4	65	52	35	ug/kg	J
11096-82-5	Aroclor 1260	52 U	65	52	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		10-163%
877-09-8	Tetrachloro-m-xylene	64%		10-163%
2051-24-3	Decachlorobiphenyl	59%		10-215%
2051-24-3	Decachlorobiphenyl	68%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0372-001.0-20211103		
Lab Sample ID:	FA90505-19	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475904.D	1	12/16/21 10:25	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	20% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	23% [b]		10-163%
2051-24-3	Decachlorobiphenyl	27%		10-215%
2051-24-3	Decachlorobiphenyl	31%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0372-002.0-20211103		
Lab Sample ID:	FA90505-20	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475905.D	1	12/16/21 10:42	ANJ	11/16/21 17:00	N:OP36639	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	53 U	66	53	31	ug/kg	
11104-28-2	Aroclor 1221	53 U	66	53	41	ug/kg	
11141-16-5	Aroclor 1232	53 U	66	53	42	ug/kg	
53469-21-9	Aroclor 1242	53 U	66	53	27	ug/kg	
12672-29-6	Aroclor 1248	62 U	66	62	59	ug/kg	
11097-69-1	Aroclor 1254	53 U	66	53	35	ug/kg	
11096-82-5	Aroclor 1260	53 U	66	53	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-163%
877-09-8	Tetrachloro-m-xylene	91%		10-163%
2051-24-3	Decachlorobiphenyl	80%		10-215%
2051-24-3	Decachlorobiphenyl	85%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0372-003.0-20211103		
Lab Sample ID:	FA90505-21	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475855.D	1	12/15/21 20:12	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	26	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	22	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	131% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	134% [b]		10-163%
2051-24-3	Decachlorobiphenyl	150%		10-215%
2051-24-3	Decachlorobiphenyl	151%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0372-004.0-20211103		
Lab Sample ID:	FA90505-22	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475848.D	1	12/15/21 18:11	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	34 U	43	34	20	ug/kg	
11104-28-2	Aroclor 1221	34 U	43	34	27	ug/kg	
11141-16-5	Aroclor 1232	34 U	43	34	27	ug/kg	
53469-21-9	Aroclor 1242	34 U	43	34	18	ug/kg	
12672-29-6	Aroclor 1248	40 U	43	40	38	ug/kg	
11097-69-1	Aroclor 1254	34 U	43	34	23	ug/kg	
11096-82-5	Aroclor 1260	34 U	43	34	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	33% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	36% [b]		10-163%
2051-24-3	Decachlorobiphenyl	56%		10-215%
2051-24-3	Decachlorobiphenyl	54%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0373-000.5-20211103		
Lab Sample ID:	FA90505-23	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475912.D	1	12/16/21 12:44	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	26	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	86.0	40	32	22	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	148% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	154% [b]		10-163%
2051-24-3	Decachlorobiphenyl	165%		10-215%
2051-24-3	Decachlorobiphenyl	167%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0373-001.0-20211103		
Lab Sample ID:	FA90505-24	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475849.D	1	12/15/21 18:28	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	42	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	42	33	26	ug/kg	
11141-16-5	Aroclor 1232	33 U	42	33	27	ug/kg	
53469-21-9	Aroclor 1242	33 U	42	33	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	42	39	37	ug/kg	
11097-69-1	Aroclor 1254	33 U	42	33	22	ug/kg	
11096-82-5	Aroclor 1260	33 U	42	33	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		10-163%
877-09-8	Tetrachloro-m-xylene	100%		10-163%
2051-24-3	Decachlorobiphenyl	97%		10-215%
2051-24-3	Decachlorobiphenyl	103%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0373-002.0-20211103		
Lab Sample ID:	FA90505-25	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475850.D	1	12/15/21 18:45	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	41	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	41	33	25	ug/kg	
11141-16-5	Aroclor 1232	33 U	41	33	26	ug/kg	
53469-21-9	Aroclor 1242	33 U	41	33	17	ug/kg	
12672-29-6	Aroclor 1248	38 U	41	38	36	ug/kg	
11097-69-1	Aroclor 1254	33 U	41	33	22	ug/kg	
11096-82-5	Aroclor 1260	33 U	41	33	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-163%
877-09-8	Tetrachloro-m-xylene	94%		10-163%
2051-24-3	Decachlorobiphenyl	102%		10-215%
2051-24-3	Decachlorobiphenyl	108%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0373-003.0-20211103		
Lab Sample ID:	FA90505-26	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475858.D	1	12/15/21 21:04	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	35 U	43	35	20	ug/kg	
11104-28-2	Aroclor 1221	35 U	43	35	27	ug/kg	
11141-16-5	Aroclor 1232	35 U	43	35	28	ug/kg	
53469-21-9	Aroclor 1242	35 U	43	35	18	ug/kg	
12672-29-6	Aroclor 1248	41 U	43	41	39	ug/kg	
11097-69-1	Aroclor 1254	35 U	43	35	23	ug/kg	
11096-82-5	Aroclor 1260	35 U	43	35	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		10-163%
877-09-8	Tetrachloro-m-xylene	90%		10-163%
2051-24-3	Decachlorobiphenyl	94%		10-215%
2051-24-3	Decachlorobiphenyl	96%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0373-004.0-20211103		
Lab Sample ID:	FA90505-27	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475859.D	1	12/15/21 21:22	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	41	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	41	33	25	ug/kg	
11141-16-5	Aroclor 1232	33 U	41	33	26	ug/kg	
53469-21-9	Aroclor 1242	33 U	41	33	17	ug/kg	
12672-29-6	Aroclor 1248	38 U	41	38	36	ug/kg	
11097-69-1	Aroclor 1254	33 U	41	33	22	ug/kg	
11096-82-5	Aroclor 1260	33 U	41	33	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	129%		10-163%
877-09-8	Tetrachloro-m-xylene	135% [b]		10-163%
2051-24-3	Decachlorobiphenyl	132%		10-215%
2051-24-3	Decachlorobiphenyl	139%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0363-000.5-20211103		
Lab Sample ID:	FA90505-28	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	68.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475860.D	1	12/15/21 21:39	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	36 U	45	36	21	ug/kg	
11104-28-2	Aroclor 1221	36 U	45	36	28	ug/kg	
11141-16-5	Aroclor 1232	36 U	45	36	29	ug/kg	
53469-21-9	Aroclor 1242	36 U	45	36	19	ug/kg	
12672-29-6	Aroclor 1248	42 U	45	42	40	ug/kg	
11097-69-1	Aroclor 1254	36 U	45	36	24	ug/kg	
11096-82-5	Aroclor 1260	36 U	45	36	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		10-163%
877-09-8	Tetrachloro-m-xylene	71%		10-163%
2051-24-3	Decachlorobiphenyl	82%		10-215%
2051-24-3	Decachlorobiphenyl	83%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0363-001.0-20211103		
Lab Sample ID:	FA90505-29	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475861.D	1	12/15/21 21:56	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	33 U	42	33	19	ug/kg	
11104-28-2	Aroclor 1221	33 U	42	33	26	ug/kg	
11141-16-5	Aroclor 1232	33 U	42	33	27	ug/kg	
53469-21-9	Aroclor 1242	33 U	42	33	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	42	39	37	ug/kg	
11097-69-1	Aroclor 1254	33 U	42	33	22	ug/kg	
11096-82-5	Aroclor 1260	33 U	42	33	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		10-163%
877-09-8	Tetrachloro-m-xylene	104%		10-163%
2051-24-3	Decachlorobiphenyl	111%		10-215%
2051-24-3	Decachlorobiphenyl	113%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0363-002.0-20211103		
Lab Sample ID:	FA90505-30	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475866.D	1	12/15/21 23:24	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	26	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	17	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	22	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		10-163%
877-09-8	Tetrachloro-m-xylene	117%		10-163%
2051-24-3	Decachlorobiphenyl	132%		10-215%
2051-24-3	Decachlorobiphenyl	129%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0363-003.0-20211103		
Lab Sample ID:	FA90505-31	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	71.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475867.D	1	12/15/21 23:41	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	36 U	45	36	21	ug/kg	
11104-28-2	Aroclor 1221	36 U	45	36	28	ug/kg	
11141-16-5	Aroclor 1232	36 U	45	36	29	ug/kg	
53469-21-9	Aroclor 1242	36 U	45	36	18	ug/kg	
12672-29-6	Aroclor 1248	42 U	45	42	40	ug/kg	
11097-69-1	Aroclor 1254	36 U	45	36	24	ug/kg	
11096-82-5	Aroclor 1260	36 U	45	36	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	16% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	14% [b]		10-163%
2051-24-3	Decachlorobiphenyl	97%		10-215%
2051-24-3	Decachlorobiphenyl	94%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0364-000.5-20211103		
Lab Sample ID:	FA90505-32	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	69.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475913.D	1	12/16/21 13:01	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	35 U	44	35	20	ug/kg	
11104-28-2	Aroclor 1221	35 U	44	35	27	ug/kg	
11141-16-5	Aroclor 1232	35 U	44	35	28	ug/kg	
53469-21-9	Aroclor 1242	35 U	44	35	18	ug/kg	
12672-29-6	Aroclor 1248	41 U	44	41	39	ug/kg	
11097-69-1	Aroclor 1254	29.8	44	35	24	ug/kg	J
11096-82-5	Aroclor 1260	35 U	44	35	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	52%		10-163%
877-09-8	Tetrachloro-m-xylene	54%		10-163%
2051-24-3	Decachlorobiphenyl	101%		10-215%
2051-24-3	Decachlorobiphenyl	93%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0364-001.0-20211103		
Lab Sample ID:	FA90505-33	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	67.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475868.D	1	12/15/21 23:58	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	36 U	45	36	21	ug/kg	
11104-28-2	Aroclor 1221	36 U	45	36	28	ug/kg	
11141-16-5	Aroclor 1232	36 U	45	36	29	ug/kg	
53469-21-9	Aroclor 1242	36 U	45	36	19	ug/kg	
12672-29-6	Aroclor 1248	43 U	45	43	41	ug/kg	
11097-69-1	Aroclor 1254	36 U	45	36	24	ug/kg	
11096-82-5	Aroclor 1260	36 U	45	36	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		10-163%
877-09-8	Tetrachloro-m-xylene	94%		10-163%
2051-24-3	Decachlorobiphenyl	108%		10-215%
2051-24-3	Decachlorobiphenyl	104%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0364-002.0-20211103		
Lab Sample ID:	FA90505-34	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475941.D	1	12/16/21 21:56	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	16.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	25	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	30.8	40	32	21	ug/kg	J
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		10-163%
877-09-8	Tetrachloro-m-xylene	115%		10-163%
2051-24-3	Decachlorobiphenyl	132%		10-215%
2051-24-3	Decachlorobiphenyl	130%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0364-003.0-20211103		
Lab Sample ID:	FA90505-35	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	71.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475914.D	1	12/16/21 13:18	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	16.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	34 U	43	34	20	ug/kg	
11104-28-2	Aroclor 1221	34 U	43	34	27	ug/kg	
11141-16-5	Aroclor 1232	34 U	43	34	27	ug/kg	
53469-21-9	Aroclor 1242	34 U	43	34	18	ug/kg	
12672-29-6	Aroclor 1248	40 U	43	40	38	ug/kg	
11097-69-1	Aroclor 1254	27.9	43	34	23	ug/kg	J
11096-82-5	Aroclor 1260	34 U	43	34	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		10-163%
877-09-8	Tetrachloro-m-xylene	84%		10-163%
2051-24-3	Decachlorobiphenyl	104%		10-215%
2051-24-3	Decachlorobiphenyl	116%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0365-000.5-20211103		
Lab Sample ID:	FA90505-36	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475915.D	1	12/16/21 13:36	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	34 U	42	34	20	ug/kg	
11104-28-2	Aroclor 1221	34 U	42	34	26	ug/kg	
11141-16-5	Aroclor 1232	34 U	42	34	27	ug/kg	
53469-21-9	Aroclor 1242	34 U	42	34	17	ug/kg	
12672-29-6	Aroclor 1248	39 U	42	39	37	ug/kg	
11097-69-1	Aroclor 1254	30.4	42	34	23	ug/kg	J
11096-82-5	Aroclor 1260	34 U	42	34	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		10-163%
877-09-8	Tetrachloro-m-xylene	121%		10-163%
2051-24-3	Decachlorobiphenyl	129%		10-215%
2051-24-3	Decachlorobiphenyl	147%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0365-001.0-20211103		
Lab Sample ID:	FA90505-37	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475870.D	1	12/16/21 00:33	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	32 U	40	32	19	ug/kg	
11104-28-2	Aroclor 1221	32 U	40	32	25	ug/kg	
11141-16-5	Aroclor 1232	32 U	40	32	26	ug/kg	
53469-21-9	Aroclor 1242	32 U	40	32	16	ug/kg	
12672-29-6	Aroclor 1248	38 U	40	38	36	ug/kg	
11097-69-1	Aroclor 1254	32 U	40	32	22	ug/kg	
11096-82-5	Aroclor 1260	32 U	40	32	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		10-163%
877-09-8	Tetrachloro-m-xylene	130%		10-163%
2051-24-3	Decachlorobiphenyl	130%		10-215%
2051-24-3	Decachlorobiphenyl	148%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0365-002.0-20211103		
Lab Sample ID:	FA90505-38	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475871.D	1	12/16/21 00:51	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	31 U	39	31	18	ug/kg	
11104-28-2	Aroclor 1221	31 U	39	31	24	ug/kg	
11141-16-5	Aroclor 1232	31 U	39	31	25	ug/kg	
53469-21-9	Aroclor 1242	31 U	39	31	16	ug/kg	
12672-29-6	Aroclor 1248	37 U	39	37	35	ug/kg	
11097-69-1	Aroclor 1254	31 U	39	31	21	ug/kg	
11096-82-5	Aroclor 1260	31 U	39	31	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		10-163%
877-09-8	Tetrachloro-m-xylene	110%		10-163%
2051-24-3	Decachlorobiphenyl	116%		10-215%
2051-24-3	Decachlorobiphenyl	125%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0365-003.0-20211103		
Lab Sample ID:	FA90505-39	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	70.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475872.D	1	12/16/21 01:08	ANJ	11/17/21 16:30	N:OP36640	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	37 U	47	37	22	ug/kg	
11104-28-2	Aroclor 1221	37 U	47	37	29	ug/kg	
11141-16-5	Aroclor 1232	37 U	47	37	30	ug/kg	
53469-21-9	Aroclor 1242	37 U	47	37	19	ug/kg	
12672-29-6	Aroclor 1248	44 U	47	44	42	ug/kg	
11097-69-1	Aroclor 1254	37 U	47	37	25	ug/kg	
11096-82-5	Aroclor 1260	37 U	47	37	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	140% [b]		10-163%
877-09-8	Tetrachloro-m-xylene	152% [b]		10-163%
2051-24-3	Decachlorobiphenyl	151%		10-215%
2051-24-3	Decachlorobiphenyl	167%		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside program requirements but within in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0366-000.5-20211103		
Lab Sample ID:	FA90505-40	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	67.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475916.D	1	12/16/21 13:53	ANJ	11/17/21 16:30	N:OP36640	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	52.1	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	39 U	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		10-163%
877-09-8	Tetrachloro-m-xylene	122%		10-163%
2051-24-3	Decachlorobiphenyl	122%		10-215%
2051-24-3	Decachlorobiphenyl	125%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0366-001.0-20211103		
Lab Sample ID:	FA90505-41	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475836.D	1	12/15/21 14:35	ANJ	11/18/21 14:00	N:OP36641	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	67	54	31	ug/kg	
11104-28-2	Aroclor 1221	54 U	67	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	67	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	67	54	28	ug/kg	
12672-29-6	Aroclor 1248	63 U	67	63	60	ug/kg	
11097-69-1	Aroclor 1254	54 U	67	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	67	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		10-163%
877-09-8	Tetrachloro-m-xylene	103%		10-163%
2051-24-3	Decachlorobiphenyl	114%		10-215%
2051-24-3	Decachlorobiphenyl	121%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0366-002.0-20211103		
Lab Sample ID:	FA90505-42	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	63.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475839.D	1	12/15/21 15:35	ANJ	11/18/21 14:00	N:OP36641	N:GXX7685
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	61 U	77	61	36	ug/kg	
11104-28-2	Aroclor 1221	61 U	77	61	47	ug/kg	
11141-16-5	Aroclor 1232	61 U	77	61	49	ug/kg	
53469-21-9	Aroclor 1242	61 U	77	61	31	ug/kg	
12672-29-6	Aroclor 1248	72 U	77	72	68	ug/kg	
11097-69-1	Aroclor 1254	61 U	77	61	41	ug/kg	
11096-82-5	Aroclor 1260	61 U	77	61	33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		10-163%
877-09-8	Tetrachloro-m-xylene	103%		10-163%
2051-24-3	Decachlorobiphenyl	96%		10-215%
2051-24-3	Decachlorobiphenyl	110%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0366-003.0-20211103		
Lab Sample ID:	FA90505-43	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	60.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475156.D	1	12/02/21 12:18	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	66 U	83	66	39	ug/kg	
11104-28-2	Aroclor 1221	66 U	83	66	51	ug/kg	
11141-16-5	Aroclor 1232	66 U	83	66	53	ug/kg	
53469-21-9	Aroclor 1242	66 U	83	66	34	ug/kg	
12672-29-6	Aroclor 1248	78 U	83	78	74	ug/kg	
11097-69-1	Aroclor 1254	66 U	83	66	45	ug/kg	
11096-82-5	Aroclor 1260	66 U	83	66	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		24-152%
877-09-8	Tetrachloro-m-xylene	92%		24-152%
2051-24-3	Decachlorobiphenyl	87%		10-172%
2051-24-3	Decachlorobiphenyl	96%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0367-000.5-20211103		
Lab Sample ID:	FA90505-44	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	66.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475888.D	1	12/16/21 05:47	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	59 U	73	59	34	ug/kg	
11104-28-2	Aroclor 1221	59 U	73	59	45	ug/kg	
11141-16-5	Aroclor 1232	59 U	73	59	47	ug/kg	
53469-21-9	Aroclor 1242	59 U	73	59	30	ug/kg	
12672-29-6	Aroclor 1248	69 U	73	69	65	ug/kg	
11097-69-1	Aroclor 1254	80.6	73	59	39	ug/kg	
11096-82-5	Aroclor 1260	59 U	73	59	31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		10-163%
877-09-8	Tetrachloro-m-xylene	111%		10-163%
2051-24-3	Decachlorobiphenyl	95%		10-215%
2051-24-3	Decachlorobiphenyl	117%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0367-001.0-20211103		
Lab Sample ID:	FA90505-45	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	71.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475158.D	1	12/02/21 12:53	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	55 U	68	55	32	ug/kg	
11104-28-2	Aroclor 1221	55 U	68	55	42	ug/kg	
11141-16-5	Aroclor 1232	55 U	68	55	44	ug/kg	
53469-21-9	Aroclor 1242	55 U	68	55	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	61	ug/kg	
11097-69-1	Aroclor 1254	55 U	68	55	37	ug/kg	
11096-82-5	Aroclor 1260	55 U	68	55	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		24-152%
877-09-8	Tetrachloro-m-xylene	106%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	121%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0367-002.0-20211103		
Lab Sample ID:	FA90505-46	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	75.3
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475159.D	1	12/02/21 13:10	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	52 U	64	52	30	ug/kg	
11104-28-2	Aroclor 1221	52 U	64	52	40	ug/kg	
11141-16-5	Aroclor 1232	52 U	64	52	41	ug/kg	
53469-21-9	Aroclor 1242	52 U	64	52	26	ug/kg	
12672-29-6	Aroclor 1248	61 U	64	61	58	ug/kg	
11097-69-1	Aroclor 1254	52 U	64	52	35	ug/kg	
11096-82-5	Aroclor 1260	52 U	64	52	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		24-152%
877-09-8	Tetrachloro-m-xylene	68%		24-152%
2051-24-3	Decachlorobiphenyl	69%		10-172%
2051-24-3	Decachlorobiphenyl	78%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0367-003.0-20211103		
Lab Sample ID:	FA90505-47	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	71.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475160.D	1	12/02/21 13:28	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	54 U	68	54	32	ug/kg	
11104-28-2	Aroclor 1221	54 U	68	54	42	ug/kg	
11141-16-5	Aroclor 1232	54 U	68	54	43	ug/kg	
53469-21-9	Aroclor 1242	54 U	68	54	28	ug/kg	
12672-29-6	Aroclor 1248	64 U	68	64	60	ug/kg	
11097-69-1	Aroclor 1254	54 U	68	54	36	ug/kg	
11096-82-5	Aroclor 1260	54 U	68	54	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		24-152%
877-09-8	Tetrachloro-m-xylene	97%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	100%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0368-000.5-20211103		
Lab Sample ID:	FA90505-48	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475889.D	1	12/16/21 06:05	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	63	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	63	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	63	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	63	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	62.7	63	50	34	ug/kg	J
11096-82-5	Aroclor 1260	50 U	63	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	126%		10-163%
877-09-8	Tetrachloro-m-xylene	123%		10-163%
2051-24-3	Decachlorobiphenyl	102%		10-215%
2051-24-3	Decachlorobiphenyl	144%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0368-001.0-20211103
Lab Sample ID: FA90505-49
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 11/03/21
Date Received: 11/04/21
Percent Solids: 63.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475162.D	1	12/02/21 14:03	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	59 U	74	59	34	ug/kg	
11104-28-2	Aroclor 1221	59 U	74	59	46	ug/kg	
11141-16-5	Aroclor 1232	59 U	74	59	47	ug/kg	
53469-21-9	Aroclor 1242	59 U	74	59	30	ug/kg	
12672-29-6	Aroclor 1248	70 U	74	70	66	ug/kg	
11097-69-1	Aroclor 1254	59 U	74	59	40	ug/kg	
11096-82-5	Aroclor 1260	59 U	74	59	31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		24-152%
877-09-8	Tetrachloro-m-xylene	103%		24-152%
2051-24-3	Decachlorobiphenyl	86%		10-172%
2051-24-3	Decachlorobiphenyl	101%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0368-002.0-20211103		
Lab Sample ID:	FA90505-50	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	67.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475167.D	1	12/02/21 15:30	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	60 U	75	60	35	ug/kg	
11104-28-2	Aroclor 1221	60 U	75	60	46	ug/kg	
11141-16-5	Aroclor 1232	60 U	75	60	48	ug/kg	
53469-21-9	Aroclor 1242	60 U	75	60	31	ug/kg	
12672-29-6	Aroclor 1248	70 U	75	70	66	ug/kg	
11097-69-1	Aroclor 1254	60 U	75	60	40	ug/kg	
11096-82-5	Aroclor 1260	60 U	75	60	32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	46%		24-152%
877-09-8	Tetrachloro-m-xylene	49%		24-152%
2051-24-3	Decachlorobiphenyl	79%		10-172%
2051-24-3	Decachlorobiphenyl	73%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0369-000.5-20211103		
Lab Sample ID:	FA90505-51	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	73.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475890.D	1	12/16/21 06:22	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	429	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-163%
877-09-8	Tetrachloro-m-xylene	101%		10-163%
2051-24-3	Decachlorobiphenyl	103%		10-215%
2051-24-3	Decachlorobiphenyl	102%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0369-001.0-20211103		
Lab Sample ID:	FA90505-52	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	74.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475169.D	1	12/02/21 16:05	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	64	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	64	51	40	ug/kg	
11141-16-5	Aroclor 1232	51 U	64	51	41	ug/kg	
53469-21-9	Aroclor 1242	51 U	64	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	64	60	57	ug/kg	
11097-69-1	Aroclor 1254	51 U	64	51	34	ug/kg	
11096-82-5	Aroclor 1260	51 U	64	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		24-152%
877-09-8	Tetrachloro-m-xylene	99%		24-152%
2051-24-3	Decachlorobiphenyl	95%		10-172%
2051-24-3	Decachlorobiphenyl	100%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0369-002.0-20211103		
Lab Sample ID:	FA90505-53	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475170.D	1	12/02/21 16:22	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		24-152%
877-09-8	Tetrachloro-m-xylene	106%		24-152%
2051-24-3	Decachlorobiphenyl	106%		10-172%
2051-24-3	Decachlorobiphenyl	119%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0370-000.5-20211103		
Lab Sample ID:	FA90505-54	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475891.D	1	12/16/21 06:39	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	28	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	37	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	38	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	56 U	59	56	53	ug/kg	
11097-69-1	Aroclor 1254	78.6	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		10-163%
877-09-8	Tetrachloro-m-xylene	96%		10-163%
2051-24-3	Decachlorobiphenyl	96%		10-215%
2051-24-3	Decachlorobiphenyl	102%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0370-001.0-20211103		
Lab Sample ID:	FA90505-55	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475172.D	1	12/02/21 16:57	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	62	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	62	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	62	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	62	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	62	59	56	ug/kg	
11097-69-1	Aroclor 1254	50 U	62	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	62	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	105%		24-152%
877-09-8	Tetrachloro-m-xylene	106%		24-152%
2051-24-3	Decachlorobiphenyl	99%		10-172%
2051-24-3	Decachlorobiphenyl	104%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0370-002.0-20211103		
Lab Sample ID:	FA90505-56	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475173.D	1	12/02/21 17:14	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	56	52	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	120%		24-152%
877-09-8	Tetrachloro-m-xylene	124%		24-152%
2051-24-3	Decachlorobiphenyl	112%		10-172%
2051-24-3	Decachlorobiphenyl	121%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0371-000.5-20211103		
Lab Sample ID:	FA90505-57	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475892.D	1	12/16/21 06:57	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	51 U	63	51	30	ug/kg	
11104-28-2	Aroclor 1221	51 U	63	51	39	ug/kg	
11141-16-5	Aroclor 1232	51 U	63	51	40	ug/kg	
53469-21-9	Aroclor 1242	51 U	63	51	26	ug/kg	
12672-29-6	Aroclor 1248	60 U	63	60	57	ug/kg	
11097-69-1	Aroclor 1254	409	63	51	34	ug/kg	
11096-82-5	Aroclor 1260	51 U	63	51	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		10-163%
877-09-8	Tetrachloro-m-xylene	114%		10-163%
2051-24-3	Decachlorobiphenyl	133%		10-215%
2051-24-3	Decachlorobiphenyl	142%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0371-001.0-20211103		
Lab Sample ID:	FA90505-58	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475942.D	1	12/16/21 22:13	ANJ	11/18/21 14:00	N:OP36641	N:GXX7687
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	219	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		10-163%
877-09-8	Tetrachloro-m-xylene	107%		10-163%
2051-24-3	Decachlorobiphenyl	103%		10-215%
2051-24-3	Decachlorobiphenyl	135%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0371-002.0-20211103		
Lab Sample ID:	FA90505-59	**Date Sampled:**	11/03/21
Matrix:	SO - Soil	**Date Received:**	11/04/21
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	76.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2475180.D	1	12/02/21 19:35	ANJ	11/18/21 14:00	N:OP36641	N:GXX7671
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	61	49	28	ug/kg	
11104-28-2	Aroclor 1221	49 U	61	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	61	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	61	49	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	49 U	61	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	61	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-152%
877-09-8	Tetrachloro-m-xylene	101%		24-152%
2051-24-3	Decachlorobiphenyl	92%		10-172%
2051-24-3	Decachlorobiphenyl	95%		10-172%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

FA90505

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2:

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merrit Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION	P8082SOXHLETPCB SOL 104	LAB USE ONLY
1	SAEE-SB0296-005.0-20211103	11/3/21	0905	HF	SO	1		X	
2	SAEE-SB0296-006.0-20211103	11/3/21	0907	HF	SO	1		X	
3	SAEE-SB0325-004.0-20211103	11/3/21	0935	HF	SO	1		X	
4	SAEE-SB0325-005.0-20211103	11/3/21	0937	HF	SO	1		X	
5	SAEE-SB0326-004.0-20211103	11/3/21	0909	HF	SO	1		X	
6	SAEE-SB0326-005.0-20211103	11/3/21	0911	HF	SO	1		X	
7	SAEE-SB0327-004.0-20211103	11/3/21	0938	HF	SO	1		X	
8	SAEE-SB0327-005.0-20211103	11/3/21	0939	HF	SO	1		X	
9	SAEE-SB0356-004.0-20211103	11/3/21	0958	HF	SO	1		X	
10	SAEE-SB0356-005.0-20211103	11/3/21	0959	HF	SO	1		X	
11	SAEE-SB0362-004.0-20211103	11/3/21	1007	HF	SO	1		X	
12	SAEE-SB0362-005.0-20211103	11/3/21	1008	HF	SO	1		X	

CONTAINER INFORMATION: OTHER; NONE; HCl; NaOH; HNO3; H2SO4; NAOH+ZNA; DI WATER; MEOH

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT SP
LABEL VERIFICATION PH

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	11-4-21 1330	2	3	11/4/21 1536	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 1.8/2.4 IR

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 11-03-21 Soil Rev 031318

SGS North America Inc - Orlando

Chain of Custody

FA90505

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 2 OF 5

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information		Project Information	
Company Name: HGL, Inc.		Project Name:	PRL 227, LOC 3 Confirmatory Sampling
Address: 2405 N. Courtney Parkway, STE 203		Street	Kennedy Space Center
City: Merrit Island	State: FL Zip:32937	City	Merritt Island State FL
Project Contact: Denise Rivers	Email:drivers@hgl.com	Project #	NS1005.12.04
Phone #:910-233-8460		Fax #	
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2:		Client Purchase Order #	

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
13	SAEE-SB0351-000.5-20211103	11/3/21	1017	HF	SO	1										X	
14	SAEE-SB0351-001.0-20211103	11/3/21	1018	HF	SO	1										X	
15	SAEE-SB0351-002.0-20211103	11/3/21	1019	HF	SO	1										X	
16	SAEE-SB0351-003.0-20211103	11/3/21	1020	HF	SO	1										X	
17	SAEE-SB0351-004.0-20211103	11/3/21	1021	HF	SO	1										X	
18	SAEE-SB0372-000.5-20211103	11/3/21	1037	HF	SO	1										X	
19	SAEE-SB0372-001.0-20211103	11/3/21	1038	HF	SO	1										X	
20	SAEE-SB0372-002.0-20211103	11/3/21	1039	HF	SO	1										X	
21	SAEE-SB0372-003.0-20211103	11/3/21	1040	HF	SO	1										X	
22	SAEE-SB0372-004.0-20211103	11/3/21	1041	HF	SO	1										X	
23	SAEE-SB0373-000.5-20211103	11/3/21	1051	HF	SO	1										X	
24	SAEE-SB0373-001.0-20211103	11/3/21	1052	HF	SO	1										X	

Turnaround Time (Business days)

- X 10 Day (Business) — Approved By: / Date:
- 7 Day
- 5 Day
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *RUSH*
- Other

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	11-4-21/1326	2	3	11/4/21 15:36	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 11-03-21 Soil Rev 031318

FA90505

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 3 OF 5

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2:

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Information

P8082SOXHLETPCB SOL104

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH-ZNAA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0373-002.0-20211103	11/3/21	1053	HF	SO	1										X	
26	SAEE-SB0373-003.0-20211103	11/3/21	1054	HF	SO	1										X	
27	SAEE-SB0373-004.0-20211103	11/3/21	1055	HF	SO	1										X	
28	SAEE-SB0363-000.5-20211103	11/3/21	1109	HF	SO	1										X	
29	SAEE-SB0363-001.0-20211103	11/3/21	1110	HF	SO	1										X	
30	SAEE-SB0363-002.0-20211103	11/3/21	1111	HF	SO	1										X	
31	SAEE-SB0363-003.0-20211103	11/3/21	1112	HF	SO	1										X	
32	SAEE-SB0364-000.5-20211103	11/3/21	1123	HF	SO	1										X	
33	SAEE-SB0364-001.0-20211103	11/3/21	1124	HF	SO	1										X	
34	SAEE-SB0364-002.0-20211103	11/3/21	1125	HF	SO	1										X	
35	SAEE-SB0364-003.0-20211103	11/3/21	1126	HF	SO	1										X	
36	SAEE-SB0365-000.5-20211103	11/3/21	1131	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		11-4-21/1520	2	3	11/4/21 15:36	4
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5			6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 11-03-21 Soil Rev 031318

FA90505

SGS North America Inc - Orlando

Chain of Custody

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www.sgs.com

SGS - ORLANDO JOB # : PAGE 4 OF 5

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2:

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MECH	P8082SOXHLETPCB SOL104	LAB USE ONLY
37	SAEE-SB0365-001.0-20211103	11/3/21	1132	HF	SO	1										X	
38	SAEE-SB0365-002.0-20211103	11/3/21	1133	HF	SO	1										X	
39	SAEE-SB0365-003.0-20211103	11/3/21	1134	HF	SO	1										X	
40	SAEE-SB0366-000.5-20211103	11/3/21	1150	HF	SO	1										X	
41	SAEE-SB0366-001.0-20211103	11/3/21	1151	HF	SO	1										X	
42	SAEE-SB0366-002.0-20211103	11/3/21	1152	HF	SO	1										X	
43	SAEE-SB0366-003.0-20211103	11/3/21	1153	HF	SO	1										X	
44	SAEE-SB0367-000.5-20211103	11/3/21	1159	HF	SO	1										X	
45	SAEE-SB0367-001.0-20211103	11/3/21	1200	HF	SO	1										X	
46	SAEE-SB0367-002.0-20211103	11/3/21	1201	HF	SO	1										X	
47	SAEE-SB0367-003.0-20211103	11/3/21	1202	HF	SO	1										X	
48	SAEE-SB0368-000.5-20211103	11/3/21	1213	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished By Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		11-4-21/1326	2	3	11/4/21 15:36	4
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 11-03-21 Soil Rev 031318

FA90505

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 5 OF 5

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2:

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
49	SAEE-SB0368-001.0-20211103	11/3/21	1214	HF	SO	1										X	
50	SAEE-SB0368-002.0-20211103	11/3/21	1215	HF	SO	1										X	
51	SAEE-SB0369-000.5-20211103	11/3/21	1223	HF	SO	1										X	
52	SAEE-SB0369-001.0-20211103	11/3/21	1224	HF	SO	1										X	
53	SAEE-SB0369-002.0-20211103	11/3/21	1225	HF	SO	1										X	
54	SAEE-SB0370-000.5-20211103	11/3/21	1233	HF	SO	1										X	
55	SAEE-SB0370-001.0-20211103	11/3/21	1234	HF	SO	1										X	
56	SAEE-SB0370-002.0-20211103	11/3/21	1235	HF	SO	1										X	
57	SAEE-SB0371-000.5-20211103	11/3/21	1245	HF	SO	1										X	
58	SAEE-SB0371-001.0-20211103	11/3/21	1246	HF	SO	1										X	
59	SAEE-SB0371-002.0-20211103	11/3/21	1247	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Change SAEE-SB0351-004.0-20210831 to SAEE-SB0296-004.0-20210831

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		11-4-21 1530	2	3	11/4/21 15:30	4
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5			6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 11-03-21 Soil Rev 031318

SGS Sample Receipt Summary

Job Number: FA90505 **Client:** HGL **Project:** PRL 227, LOC 3 CONFIRMATORY SAMPLING

Date / Time Received: 11/4/2021 3:36:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 2

Cooler Temps (Raw Measured) °C: Cooler 1: (1.8); Cooler 2: (2.4);

Cooler Temps (Corrected) °C: Cooler 1: (2.0); Cooler 2: (2.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 11/4/2021 3:36:00 PM Reviewer: _____ Date: _____

5.1

5

FA90505: Chain of Custody
Page 6 of 6

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA90505

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS

SO

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA90505

Client / Reporting Information

Company Name: SGS North America Inc
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HF Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
1	SAEE-SB0296-000.5-20211103		11/3/21	9:05:00 AM	HF	SO	1					1				X	
2	SAEE-SB0296-006.0-20211103		11/3/21	9:07:00 AM	HF	SO	1					1				X	
3	SAEE-SB0325-004.0-20211103		11/3/21	9:35:00 AM	HF	SO	1					1				X	
4	SAEE-SB0325-000.5-20211103		11/3/21	9:37:00 AM	HF	SO	1					1				X	
5	SAEE-SB0326-004.0-20211103		11/3/21	9:09:00 AM	HF	SO	1					1				X	
6	SAEE-SB0326-000.5-20211103		11/3/21	9:11:00 AM	HF	SO	1					1				X	
7	SAEE-SB0327-004.0-20211103		11/3/21	9:38:00 AM	HF	SO	1					1				X	
8	SAEE-SB0327-000.5-20211103		11/3/21	9:39:00 AM	HF	SO	1					1				X	
9	SAEE-SB0356-004.0-20211103		11/3/21	9:58:00 AM	HF	SO	1					1				X	
10	SAEE-SB0356-000.5-20211103		11/3/21	9:59:00 AM	HF	SO	1					1				X	
11	SAEE-SB0362-004.0-20211103		11/3/21	10:07:00 AM	HF	SO	1					1				X	
12	SAEE-SB0362-000.5-20211103		11/3/21	10:08:00 AM	HF	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 11/18/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		11/18/21 1700	1 Fed Ex	2 Fed Ex	11/19/21 11:30	2
3			3	4		4
5			5	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID:	On Ice / Cooler Temp.

3.1 C1P
3.9

FA90505: Chain of Custody
Page 1 of 6
SGS Dayton, NJ

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA90505

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HF Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

P8082SOXHLETPCB ,SOL104 ,

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
13	SAEE-SB0351-000.5-20211103		11/3/21	10:17:00 AM	HF	SO	1					1				
14	SAEE-SB0351-001.0-20211103		11/3/21	10:18:00 AM	HF	SO	1					1				
15	SAEE-SB0351-002.0-20211103		11/3/21	10:19:00 AM	HF	SO	1					1				
16	SAEE-SB0351-003.0-20211103		11/3/21	10:20:00 AM	HF	SO	1					1				
17	SAEE-SB0351-004.0-20211103		11/3/21	10:21:00 AM	HF	SO	1					1				
18	SAEE-SB0372-000.5-20211103		11/3/21	10:37:00 AM	HF	SO	1					1				
19	SAEE-SB0372-001.0-20211103		11/3/21	10:38:00 AM	HF	SO	1					1				
20	SAEE-SB0372-002.0-20211103		11/3/21	10:39:00 AM	HF	SO	1					1				
21	SAEE-SB0372-003.0-20211103		11/3/21	10:40:00 AM	HF	SO	1					1				
22	SAEE-SB0373-004.0-20211103		11/3/21	10:41:00 AM	HF	SO	1					1				
23	SAEE-SB0373-000.5-20211103		11/3/21	10:51:00 AM	HF	SO	1					1				
24	SAEE-SB0373-001.0-20211103		11/3/21	10:52:00 AM	HF	SO	1					1				

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 11/18/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [x] QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 11/18/21 1730	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐ Cooler Temp.

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA90505

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City State Zip: Orlando FL 32811
Project Contact E-mail: jean.dent-emith@sgs.com
Phone # Fax #: 407-425-6700
Sampler(s) Name(s) Phone: HF

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

P8082SOXHLETPCB_SOL104

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
25	SAEE-SB0373-002.0-20211103		11/3/21	10:53:00 AM	HF	SO	1					1				X	
26	SAEE-SB0373-003.0-20211103		11/3/21	10:54:00 AM	HF	SO	1					1				X	
27	SAEE-SB0373-004.0-20211103		11/3/21	10:55:00 AM	HF	SO	1					1				X	
28	SAEE-SB0363-000.5-20211103		11/3/21	11:09:00 AM	HF	SO	1					1				X	
29	SAEE-SB0363-001.0-20211103		11/3/21	11:10:00 AM	HF	SO	1					1				X	
30	SAEE-SB0363-002.0-20211103		11/3/21	11:11:00 AM	HF	SO	1					1				X	
31	SAEE-SB0363-003.0-20211103		11/3/21	11:12:00 AM	HF	SO	1					1				X	
32	SAEE-SB0364-000.5-20211103		11/3/21	11:23:00 AM	HF	SO	1					1				X	
33	SAEE-SB0364-001.0-20211103		11/3/21	11:24:00 AM	HF	SO	1					1				X	
34	SAEE-SB0364-002.0-20211103		11/3/21	11:25:00 AM	HF	SO	1					1				X	
35	SAEE-SB0364-003.0-20211103		11/3/21	11:26:00 AM	HF	SO	1					1				X	
36	SAEE-SB0365-000.5-20211103		11/3/21	11:31:00 AM	HF	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 11/18/2021

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

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- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] QC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		11/18/21 17:00	1	2		2
3			3	4		4
5			5			

Custody Seal # | Intact | Not intact | Preserved where applicable | Therm. ID: | On Ice | Cooler Temp.

CHAIN OF CUSTODY

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TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA90505

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HF Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

P8082SOXHLETPCB_SOL104

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
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OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
37	SAEE-SB0365-001.0-20211103		11/3/21	11:32:00 AM	HF	SO	1					1				X
38	SAEE-SB0365-002.0-20211103		11/3/21	11:33:00 AM	HF	SO	1					1				X
39	SAEE-SB0365-003.0-20211103		11/3/21	11:34:00 AM	HF	SO	1					1				X
40	SAEE-SB0366-000.5-20211103		11/3/21	11:50:00 AM	HF	SO	1					1				X
41	SAEE-SB0366-001.0-20211103		11/3/21	11:51:00 AM	HF	SO	1					1				X
42	SAEE-SB0366-002.0-20211103		11/3/21	11:52:00 AM	HF	SO	1					1				X
43	SAEE-SB0366-003.0-20211103		11/3/21	11:53:00 AM	HF	SO	1					1				X
44	SAEE-SB0367-000.5-20211103		11/3/21	11:59:00 AM	HF	SO	1					1				X
45	SAEE-SB0367-001.0-20211103		11/3/21	12:00:00 PM	HF	SO	1					1				X
46	SAEE-SB0367-002.0-20211103		11/3/21	12:01:00 PM	HF	SO	1					1				X
47	SAEE-SB0367-003.0-20211103		11/3/21	12:02:00 PM	HF	SO	1					1				X
48	SAEE-SB0368-000.5-20211103		11/3/21	12:13:00 PM	HF	SO	1					1				X

Turnaround Time (Business days) | Data Deliverable Information | Comments / Special Instructions

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 11/18/2021

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
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SGS-NJ

http://www.sgs.com/en/terms-and-conditions

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	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		11/18/21 17:30	1	2		2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp. Therm. ID:

6.1 6

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
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FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA90505

Client / Reporting Information

Company Name: SGS North America Inc.
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Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HF Phone:

Project Information

Project Name: ~~TQN-118-NASA~~ PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	LAB USE ONLY
49	SAEE-SB0368-001.0-20211103		11/3/21	12:14:00 PM	HF	SO	1					1				X	
50	SAEE-SB0368-002.0-20211103		11/3/21	12:15:00 PM	HF	SO	1					1				X	
51	SAEE-SB0369-000.5-20211103		11/3/21	12:23:00 PM	HF	SO	1					1				X	
52	SAEE-SB0369-001.0-20211103		11/3/21	12:24:00 PM	HF	SO	1					1				X	
53	SAEE-SB0369-002.0-20211103		11/3/21	12:25:00 PM	HF	SO	1					1				X	
54	SAEE-SB0370-000.5-20211103		11/3/21	12:33:00 PM	HF	SO	1					1				X	
55	SAEE-SB0370-001.0-20211103		11/3/21	12:34:00 PM	HF	SO	1					1				X	
56	SAEE-SB0370-002.0-20211103		11/3/21	12:35:00 PM	HF	SO	1					1				X	
57	SAEE-SB0371-000.5-20211103		11/3/21	12:45:00 PM	HF	SO	1					1				X	
58	SAEE-SB0371-001.0-20211103		11/3/21	12:46:00 PM	HF	SO	1					1				X	
59	SAEE-SB0371-002.0-20211103		11/3/21	12:47:00 PM	HF	SO	1					1				X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 11/18/2021

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- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] GC

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Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

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Relinquished by Sampler: 1	Date Time: 11/18/21 17:00	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ] Therm ID: [ ] On Ice Cooler Temp.

SGS Sample Receipt Summary

Job Number: FA90505 **Client:** _____ **Project:** _____

Date / Time Received: 11/9/2021 10:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler : (3.9); Cooler 1: (3.1);

Cooler Temps (Corrected) °C: Cooler : (2.5); Cooler 1: (1.7);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

FA90505: Chain of Custody
Page 6 of 6

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP36639	SW846 8082A						
OP36639-BS1	12674-11-2	Aroclor 1016	BSP	REC	123	%	47-134
OP36639-BS1	11096-82-5	Aroclor 1260	BSP	REC	140	%	53-140
OP36639-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	112	%	44-130
OP36639-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	120	%	44-130
OP36639-MS	12674-11-2	Aroclor 1016	MS	REC	121	%	47-134
OP36639-MS	11096-82-5	Aroclor 1260	MS	REC	137	%	53-140
OP36639-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	118	%	44-130
OP36639-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	129	%	44-130
OP36639-MSD	12674-11-2	Aroclor 1016	MSD	REC	131	%	47-134
OP36639-MSD	12674-11-2	Aroclor 1016	MSD	RPD	5	%	30
OP36639-MSD	11097-69-1	Aroclor 1254	MSD	RPD	19	%	30
OP36639-MSD	11096-82-5	Aroclor 1260	MSD	REC	153	%	53-140
OP36639-MSD	11096-82-5	Aroclor 1260	MSD	RPD	8	%	30
OP36639-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	129	%	44-130
OP36639-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	139	%	44-130
OP36639-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	122	%	44-130
OP36639-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	135 [a]	%	44-130
FA90505-1	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	131 [a]	%	44-130
FA90505-1	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	142 [a]	%	44-130
FA90505-2	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	147 [a]	%	44-130
FA90505-2	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	157 [a]	%	44-130
FA90505-3	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	121	%	44-130
FA90505-3	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	132 [a]	%	44-130
FA90505-4	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	119	%	44-130
FA90505-4	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	135 [a]	%	44-130
FA90505-5	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	116	%	44-130
FA90505-5	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	126	%	44-130
FA90505-6	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	114	%	44-130
FA90505-6	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	121	%	44-130
FA90505-7	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	130	%	44-130
FA90505-7	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	151 [a]	%	44-130
FA90505-8	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	111	%	44-130
FA90505-8	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	122	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	129	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	130	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	120	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	145 [a]	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	119	%	44-130
FA90505-9	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	128	%	44-130
FA90505-10	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	116	%	44-130
FA90505-10	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	115	%	44-130
FA90505-10	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	119	%	44-130

* Sample used for QC is not from job FA90505

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA90505-10	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	127	%	44-130
FA90505-11	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	124	%	44-130
FA90505-11	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	150 [a]	%	44-130
FA90505-12	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	117	%	44-130
FA90505-12	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	99	%	44-130
FA90505-12	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
FA90505-12	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	128	%	44-130
FA90505-13	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	107	%	44-130
FA90505-13	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	119	%	44-130
FA90505-13	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	117	%	44-130
FA90505-13	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	145 [a]	%	44-130
FA90505-14	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	109	%	44-130
FA90505-14	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	94	%	44-130
FA90505-14	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	98	%	44-130
FA90505-14	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	121	%	44-130
FA90505-15	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA90505-15	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	116	%	44-130
FA90505-15	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	114	%	44-130
FA90505-15	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	137 [a]	%	44-130
FA90505-16	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	27 [a]	%	44-130
FA90505-16	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	30 [a]	%	44-130
FA90505-16	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	28 [a]	%	44-130
FA90505-16	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	32 [a]	%	44-130
FA90505-17	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	106	%	44-130
FA90505-17	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	126	%	44-130
FA90505-17	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	110	%	44-130
FA90505-17	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	136 [a]	%	44-130
FA90505-18	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	52	%	44-130
FA90505-18	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	64	%	44-130
FA90505-19	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	20 [a]	%	44-130
FA90505-19	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	23 [a]	%	44-130
FA90505-20	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	86	%	44-130
FA90505-20	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	91	%	44-130
OP36640	SW846 8082A						
OP36640-BS1	12674-11-2	Aroclor 1016	BSP	REC	94	%	47-134
OP36640-BS1	11096-82-5	Aroclor 1260	BSP	REC	109	%	53-140
OP36640-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	96	%	44-130
OP36640-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	103	%	44-130
OP36640-BSD	12674-11-2	Aroclor 1016	BSD	REC	106	%	47-134
OP36640-BSD	11096-82-5	Aroclor 1260	BSD	REC	124	%	53-140
OP36640-BSD	877-09-8	Tetrachloro-m-xylene (sig#1)	BSD	SURR	112	%	44-130
OP36640-BSD	877-09-8	Tetrachloro-m-xylene (sig#2)	BSD	SURR	116	%	44-130
OP36640-MS	12674-11-2	Aroclor 1016	MS	REC	117	%	47-134

* Sample used for QC is not from job FA90505

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP36640-MS	11096-82-5	Aroclor 1260	MS	REC	203 [b]	%	53-140
OP36640-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	109	%	44-130
OP36640-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	113	%	44-130
OP36640-MSD	12674-11-2	Aroclor 1016	MSD	REC	112	%	47-134
OP36640-MSD	12674-11-2	Aroclor 1016	MSD	RPD	7	%	30
OP36640-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP36640-MSD	11096-82-5	Aroclor 1260	MSD	REC	119	%	53-140
OP36640-MSD	11096-82-5	Aroclor 1260	MSD	RPD	55 [a]	%	30
OP36640-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	98	%	44-130
OP36640-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	104	%	44-130
OP36640-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	103	%	44-130
OP36640-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	113	%	44-130
FA90505-21	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	131 [a]	%	44-130
FA90505-21	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	134 [a]	%	44-130
FA90505-22	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	33 [a]	%	44-130
FA90505-22	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	36 [a]	%	44-130
FA90505-23	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	148 [a]	%	44-130
FA90505-23	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	154 [a]	%	44-130
FA90505-24	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA90505-24	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	100	%	44-130
FA90505-25	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	86	%	44-130
FA90505-25	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA90505-26	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	83	%	44-130
FA90505-26	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	90	%	44-130
FA90505-27	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	129	%	44-130
FA90505-27	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	135 [a]	%	44-130
FA90505-28	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	62	%	44-130
FA90505-28	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	44-130
FA90505-29	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	102	%	44-130
FA90505-29	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	104	%	44-130
FA90505-30	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	117	%	44-130
FA90505-30	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	117	%	44-130
FA90505-31	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	16 [a]	%	44-130
FA90505-31	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	14 [a]	%	44-130
FA90505-32	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	52	%	44-130
FA90505-32	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	54	%	44-130
FA90505-33	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA90505-33	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	94	%	44-130
FA90505-34	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	112	%	44-130
FA90505-34	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	115	%	44-130
FA90505-35	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	82	%	44-130
FA90505-35	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	84	%	44-130
FA90505-36	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	118	%	44-130
FA90505-36	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	121	%	44-130
FA90505-37	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	121	%	44-130

* Sample used for QC is not from job FA90505

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA90505-37	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	130	%	44-130
FA90505-38	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	102	%	44-130
FA90505-38	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	110	%	44-130
FA90505-39	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	140 [a]	%	44-130
FA90505-39	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	152 [a]	%	44-130
FA90505-40	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	117	%	44-130
FA90505-40	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	122	%	44-130
OP36641	SW846 8082A						
OP36641-BS1	12674-11-2	Aroclor 1016	BSP	REC	96	%	47-134
OP36641-BS1	11096-82-5	Aroclor 1260	BSP	REC	114	%	53-140
OP36641-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	93	%	44-130
OP36641-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	109	%	44-130
OP36641-BSD	12674-11-2	Aroclor 1016	BSD	REC	95	%	47-134
OP36641-BSD	11096-82-5	Aroclor 1260	BSD	REC	112	%	53-140
OP36641-BSD	877-09-8	Tetrachloro-m-xylene (sig#1)	BSD	SURR	99	%	44-130
OP36641-BSD	877-09-8	Tetrachloro-m-xylene (sig#2)	BSD	SURR	103	%	44-130
OP36641-MS	12674-11-2	Aroclor 1016	MS	REC	91	%	47-134
OP36641-MS	11096-82-5	Aroclor 1260	MS	REC	95	%	53-140
OP36641-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	86	%	44-130
OP36641-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	91	%	44-130
OP36641-MSD	12674-11-2	Aroclor 1016	MSD	REC	106	%	47-134
OP36641-MSD	12674-11-2	Aroclor 1016	MSD	RPD	18	%	30
OP36641-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP36641-MSD	11096-82-5	Aroclor 1260	MSD	REC	116	%	53-140
OP36641-MSD	11096-82-5	Aroclor 1260	MSD	RPD	24	%	30
OP36641-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	96	%	44-130
OP36641-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	102	%	44-130
OP36641-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	119	%	44-130
OP36641-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	124	%	44-130
FA90505-41	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA90505-41	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA90505-42	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	97	%	44-130
FA90505-42	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA90505-43	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	91	%	44-130
FA90505-43	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	92	%	44-130
FA90505-44	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA90505-44	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	111	%	44-130
FA90505-45	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA90505-45	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	106	%	44-130
FA90505-46	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	67	%	44-130
FA90505-46	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	68	%	44-130
FA90505-47	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	96	%	44-130
FA90505-47	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	97	%	44-130

* Sample used for QC is not from job FA90505

QC Evaluation: DOD QSM5.x Limits

Job Number: FA90505
Account: SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL
Collected: 11/03/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA90505-48	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	126	%	44-130
FA90505-48	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	123	%	44-130
FA90505-49	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	92	%	44-130
FA90505-49	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	103	%	44-130
FA90505-50	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	46	%	44-130
FA90505-50	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	49	%	44-130
FA90505-51	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	86	%	44-130
FA90505-51	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	101	%	44-130
FA90505-52	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	102	%	44-130
FA90505-52	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	99	%	44-130
FA90505-53	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	105	%	44-130
FA90505-53	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	106	%	44-130
FA90505-54	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	96	%	44-130
FA90505-54	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	96	%	44-130
FA90505-55	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	105	%	44-130
FA90505-55	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	106	%	44-130
FA90505-56	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	120	%	44-130
FA90505-56	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	124	%	44-130
FA90505-57	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	101	%	44-130
FA90505-57	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	114	%	44-130
FA90505-58	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	104	%	44-130
FA90505-58	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	107	%	44-130
FA90505-59	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	95	%	44-130
FA90505-59	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	101	%	44-130

(a) Outside program requirements but within in house control limits.
(b) Outside control limits due to matrix interference.

* Sample used for QC is not from job FA90505

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36639-MB1	5G112645.D	1	12/06/21	RK	11/16/21	OP36639	G5G2862

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-1, FA90505-2, FA90505-3, FA90505-4, FA90505-5, FA90505-6, FA90505-7, FA90505-8, FA90505-9, FA90505-10, FA90505-11, FA90505-12, FA90505-13, FA90505-14, FA90505-15, FA90505-16, FA90505-17, FA90505-18, FA90505-19, FA90505-20

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	122%	24-152%
877-09-8	Tetrachloro-m-xylene	135% [a]	24-152%
2051-24-3	Decachlorobiphenyl	140%	10-172%
2051-24-3	Decachlorobiphenyl	156%	10-172%

(a) Outside program requirements but within in house control limits.

Method Blank Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36640-MB1	XX2475845.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-21, FA90505-22, FA90505-23, FA90505-24, FA90505-25, FA90505-26, FA90505-27, FA90505-28, FA90505-29, FA90505-30, FA90505-31, FA90505-32, FA90505-33, FA90505-34, FA90505-35, FA90505-36, FA90505-37, FA90505-38, FA90505-39, FA90505-40

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	16	ug/kg	
11104-28-2	Aroclor 1221	ND	33	21	ug/kg	
11141-16-5	Aroclor 1232	ND	33	21	ug/kg	
53469-21-9	Aroclor 1242	ND	33	14	ug/kg	
12672-29-6	Aroclor 1248	ND	33	30	ug/kg	
11097-69-1	Aroclor 1254	ND	33	18	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	103%	10-163%
877-09-8	Tetrachloro-m-xylene	113%	10-163%
2051-24-3	Decachlorobiphenyl	140%	10-215%
2051-24-3	Decachlorobiphenyl	126%	10-215%

Method Blank Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36641-MB1	XX2475833.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-41, FA90505-42, FA90505-43, FA90505-44, FA90505-45, FA90505-46, FA90505-47, FA90505-48, FA90505-49, FA90505-50, FA90505-51, FA90505-52, FA90505-53, FA90505-54, FA90505-55, FA90505-56, FA90505-57, FA90505-58, FA90505-59

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	119%	10-163%
877-09-8	Tetrachloro-m-xylene	124%	10-163%
2051-24-3	Decachlorobiphenyl	98%	10-215%
2051-24-3	Decachlorobiphenyl	124%	10-215%

Blank Spike Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36639-BS1	5G112646.D	1	12/06/21	RK	11/16/21	OP36639	G5G2862

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-1, FA90505-2, FA90505-3, FA90505-4, FA90505-5, FA90505-6, FA90505-7, FA90505-8, FA90505-9, FA90505-10, FA90505-11, FA90505-12, FA90505-13, FA90505-14, FA90505-15, FA90505-16, FA90505-17, FA90505-18, FA90505-19, FA90505-20

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	246	123	53-157
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	280	140	53-159

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	112%	10-163%
877-09-8	Tetrachloro-m-xylene	120%	10-163%
2051-24-3	Decachlorobiphenyl	127%	10-215%
2051-24-3	Decachlorobiphenyl	134%	10-215%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36640-BS1	XX2475846.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685
OP36640-BSD	XX2475847.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-21, FA90505-22, FA90505-23, FA90505-24, FA90505-25, FA90505-26, FA90505-27, FA90505-28, FA90505-29, FA90505-30, FA90505-31, FA90505-32, FA90505-33, FA90505-34, FA90505-35, FA90505-36, FA90505-37, FA90505-38, FA90505-39, FA90505-40

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	133	125	94	142	106	13	53-157/32
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	133	145	109	166	124	14	53-159/45

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	96%	112%	10-163%
877-09-8	Tetrachloro-m-xylene	103%	116%	10-163%
2051-24-3	Decachlorobiphenyl	114%	130%	10-215%
2051-24-3	Decachlorobiphenyl	110%	130%	10-215%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36641-BS1	XX2475834.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685
OP36641-BSD	XX2475835.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-41, FA90505-42, FA90505-43, FA90505-44, FA90505-45, FA90505-46, FA90505-47, FA90505-48, FA90505-49, FA90505-50, FA90505-51, FA90505-52, FA90505-53, FA90505-54, FA90505-55, FA90505-56, FA90505-57, FA90505-58, FA90505-59

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	200	192	96	190	95	1	53-157/32
11104-28-2	Aroclor 1221		ND		ND		nc	50-150/30
11141-16-5	Aroclor 1232		ND		ND		nc	50-150/30
53469-21-9	Aroclor 1242		ND		ND		nc	50-150/30
12672-29-6	Aroclor 1248		ND		ND		nc	50-150/30
11097-69-1	Aroclor 1254		ND		ND		nc	50-150/30
11096-82-5	Aroclor 1260	200	228	114	223	112	7	53-159/45

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	93%	99%	10-163%
877-09-8	Tetrachloro-m-xylene	109%	103%	10-163%
2051-24-3	Decachlorobiphenyl	89%	78%	10-215%
2051-24-3	Decachlorobiphenyl	111%	105%	10-215%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36639-MS	XX2475900.D	1	12/16/21	RK	11/16/21	OP36639	GXX7687
OP36639-MSD	XX2475901.D	1	12/16/21	RK	11/16/21	OP36639	GXX7687
FA90505-1	XX2475899.D	1	12/16/21	RK	11/16/21	OP36639	GXX7687

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-1, FA90505-2, FA90505-3, FA90505-4, FA90505-5, FA90505-6, FA90505-7, FA90505-8, FA90505-9, FA90505-10, FA90505-11, FA90505-12, FA90505-13, FA90505-14, FA90505-15, FA90505-16, FA90505-17, FA90505-18, FA90505-19, FA90505-20

CAS No.	Compound	FA90505-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	58 U		228	276	121	221	290	131	5	10-243/69
11104-28-2	Aroclor 1221	58 U			ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	58 U			ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	58 U			ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	58 U			ND			ND		nc	50-150/19
11097-69-1	Aroclor 1254	51.9	J		94.6			115		19	50-150/67
11096-82-5	Aroclor 1260	58 U		228	312	137	221	339	153	8	10-200/64

CAS No.	Surrogate Recoveries	MS	MSD	FA90505-1	Limits
877-09-8	Tetrachloro-m-xylene	118%	129%	131% [a]	10-163%
877-09-8	Tetrachloro-m-xylene	129%	139%	142% [a]	10-163%
2051-24-3	Decachlorobiphenyl	130%	142%	151%	10-215%
2051-24-3	Decachlorobiphenyl	158%	155%	153%	10-215%

(a) Outside program requirements but within in house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36640-MS	XX2475856.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685
OP36640-MSD	XX2475857.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685
FA90505-21	XX2475855.D	1	12/15/21	RK	11/17/21	OP36640	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-21, FA90505-22, FA90505-23, FA90505-24, FA90505-25, FA90505-26, FA90505-27, FA90505-28, FA90505-29, FA90505-30, FA90505-31, FA90505-32, FA90505-33, FA90505-34, FA90505-35, FA90505-36, FA90505-37, FA90505-38, FA90505-39, FA90505-40

CAS No.	Compound	FA90505-21 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	40	U	163	190	117	159	178	112	7	10-243/69
11104-28-2	Aroclor 1221	40	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	40	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	40	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	40	U		ND			ND		nc	50-150/19
11097-69-1	Aroclor 1254	40	U		ND			ND		nc	50-150/67
11096-82-5	Aroclor 1260	40	U	163	331	203* [a]	159	189	119	55 [b]	10-200/64

CAS No.	Surrogate Recoveries	MS	MSD	FA90505-21	Limits
877-09-8	Tetrachloro-m-xylene	109%	98%	131% [b]	10-163%
877-09-8	Tetrachloro-m-xylene	113%	104%	134% [b]	10-163%
2051-24-3	Decachlorobiphenyl	118%	103%	150%	10-215%
2051-24-3	Decachlorobiphenyl	123%	107%	151%	10-215%

(a) Outside control limits due to matrix interference.
(b) Outside program requirements but within in house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA90505
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36641-MS	XX2475837.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685
OP36641-MSD	XX2475838.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685
FA90505-41	XX2475836.D	1	12/15/21	RK	11/18/21	OP36641	GXX7685

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA90505-41, FA90505-42, FA90505-43, FA90505-44, FA90505-45, FA90505-46, FA90505-47, FA90505-48, FA90505-49, FA90505-50, FA90505-51, FA90505-52, FA90505-53, FA90505-54, FA90505-55, FA90505-56, FA90505-57, FA90505-58, FA90505-59

CAS No.	Compound	FA90505-41 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	67	U	254	232	91	263	278	106	18	10-243/69
11104-28-2	Aroclor 1221	67	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	67	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	67	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	67	U		ND			ND		nc	50-150/19
11097-69-1	Aroclor 1254	67	U		ND			ND		nc	50-150/67
11096-82-5	Aroclor 1260	67	U	254	241	95	263	306	116	24	10-200/64

CAS No.	Surrogate Recoveries	MS	MSD	FA90505-41	Limits
877-09-8	Tetrachloro-m-xylene	86%	96%	92%	10-163%
877-09-8	Tetrachloro-m-xylene	91%	102%	103%	10-163%
2051-24-3	Decachlorobiphenyl	84%	107%	114%	10-215%
2051-24-3	Decachlorobiphenyl	96%	111%	121%	10-215%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1005.12.04

SGS Job Number: FA93193

Sampling Date: 02/14/22

Report to:

HGL, Inc

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hfowler@hgl.com
ATTN: Denise Rivers

Total number of pages in report: **58**

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

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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SGS North America Inc.

Sample Summary

Hydrogeologic, Inc.

Job No: FA93193

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA93193-1	02/14/22	10:35	HF	02/15/22	SO	Soil	SAEE-SB0012-010.0-20220214
FA93193-2	02/14/22	10:40	HF	02/15/22	SO	Soil	SAEE-SB0012-011.0-20220214
FA93193-3	02/14/22	10:45	HF	02/15/22	SO	Soil	SAEE-SB0012-020.0-20220214
FA93193-4	02/14/22	10:53	HF	02/15/22	SO	Soil	SAEE-SB0362-006.0-20220214
FA93193-5	02/14/22	10:55	HF	02/15/22	SO	Soil	SAEE-SB0362-007.0-20220214
FA93193-6	02/14/22	10:57	HF	02/15/22	SO	Soil	SAEE-SB0362-008.0-20220214
FA93193-9	02/14/22	11:21	HF	02/15/22	SO	Soil	SAEE-SB0307-006.0-20220214
FA93193-10	02/14/22	11:32	HF	02/15/22	SO	Soil	SAEE-SB0357-010.0-20220214
FA93193-11	02/14/22	11:50	HF	02/15/22	SO	Soil	SAEE-SB0356-006.0-20220214
FA93193-12	02/14/22	11:52	HF	02/15/22	SO	Soil	SAEE-SB0356-007.0-20220214
FA93193-13	02/14/22	11:54	HF	02/15/22	SO	Soil	SAEE-SB0356-008.0-20220214
FA93193-16	02/14/22	12:05	HF	02/15/22	SO	Soil	SAEE-SB0360-005.0-20220214
FA93193-17	02/14/22	12:07	HF	02/15/22	SO	Soil	SAEE-SB0360-006.0-20220214

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FA93193

TQN 118 NASA PRLs; KSC, FL
Project No: NS1005.12.04

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA93193-18	02/14/22	12:09	HF	02/15/22	SO	Soil	SAEE-SB0360-007.0-20220214
FA93193-19	02/14/22	12:11	HF	02/15/22	SO	Soil	SAEE-SB0360-008.0-20220214
FA93193-22	02/14/22	12:20	HF	02/15/22	SO	Soil	SAEE-SB0326-006.0-20220214
FA93193-23	02/14/22	12:22	HF	02/15/22	SO	Soil	SAEE-SB0326-007.0-20220214
FA93193-24	02/14/22	12:24	HF	02/15/22	SO	Soil	SAEE-SB0326-008.0-20220214
FA93193-27	02/14/22	12:45	HF	02/15/22	SO	Soil	SAEE-SB0325-006.0-20220214
FA93193-28	02/14/22	12:47	HF	02/15/22	SO	Soil	SAEE-SB0325-007.0-20220214
FA93193-29	02/14/22	12:49	HF	02/15/22	SO	Soil	SAEE-SB0325-008.0-20220214
FA93193-32	02/14/22	13:11	HF	02/15/22	SO	Soil	SAEE-SB0374-000.5-20220214
FA93193-33	02/14/22	13:13	HF	02/15/22	SO	Soil	SAEE-SB0374-001.0-20220214
FA93193-34	02/14/22	13:15	HF	02/15/22	SO	Soil	SAEE-SB0374-002.0-20220214
FA93193-35	02/14/22	13:17	HF	02/15/22	SO	Soil	SAEE-SB0374-003.0-20220214
FA93193-36	02/14/22	13:19	HF	02/15/22	SO	Soil	SAEE-SB0374-004.0-20220214

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FA93193

Site: TQN 118 NASA PRLs; KSC, FL **Report Date:** 3/16/2022 1:18:26 PM

On 02/15/2022, 26 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA93193 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N: OP38262

FA93193-1: Analysis performed at SGS Dayton, NJ.

FA93193-2: Analysis performed at SGS Dayton, NJ.

FA93193-3: Analysis performed at SGS Dayton, NJ.

FA93193-4: Analysis performed at SGS Dayton, NJ.

FA93193-5: Analysis performed at SGS Dayton, NJ.

FA93193-6: Analysis performed at SGS Dayton, NJ.

FA93193-9: Analysis performed at SGS Dayton, NJ.

FA93193-10: Analysis performed at SGS Dayton, NJ.

FA93193-11: Analysis performed at SGS Dayton, NJ.

FA93193-12: Analysis performed at SGS Dayton, NJ.

FA93193-13: Analysis performed at SGS Dayton, NJ.

FA93193-16: Analysis performed at SGS Dayton, NJ.

FA93193-17: Analysis performed at SGS Dayton, NJ.

FA93193-18: Analysis performed at SGS Dayton, NJ.

FA93193-19: Analysis performed at SGS Dayton, NJ.

FA93193-22: Analysis performed at SGS Dayton, NJ.

FA93193-23: Analysis performed at SGS Dayton, NJ.

FA93193-24: Analysis performed at SGS Dayton, NJ.

FA93193-27: Analysis performed at SGS Dayton, NJ.

FA93193-28: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N: OP38263

FA93193-29: Analysis performed at SGS Dayton, NJ.

FA93193-32: Analysis performed at SGS Dayton, NJ.

FA93193-32 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

FA93193-33 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

FA93193-33: Analysis performed at SGS Dayton, NJ.

FA93193-34: Analysis performed at SGS Dayton, NJ.

FA93193-35: Analysis performed at SGS Dayton, NJ.

FA93193-36: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN26597

FA93193-29 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA93193-32 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA93193-33 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA93193-34 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA93193-35 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

FA93193-36 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN26652

FA93193-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-5 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-6 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-9 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-10 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-11 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-12 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-13 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-22 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-23 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-24 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-27 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FA93193-28 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FA93193
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	3/16/2022 9:48:46 AM

On 02/17/2022, 26 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FA93193 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP38262

- All samples were extracted within the recommended method holding time.
- Sample(s) FA93193-1MS, FA93193-1MSD, OP38262-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA93193-11 have surrogates outside control limits. Probable cause due to matrix interference.
- FA93193-11 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Matrix: SO **Batch ID:** OP38263

- All samples were extracted within the recommended method holding time.
- Sample(s) FA93193-29MS, FA93193-29MSD, OP38263-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA93193-34 have surrogates outside control limits. Probable cause due to matrix interference.
- OP38263-BS1 for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- FA93193-32 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- FA93193-33 for Aroclor 1254: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- FA93193-34 for Decachlorobiphenyl: Outside control limits due to matrix interference.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN26597

- Sample(s) JD39428-4DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN26652

- Sample(s) FA93193-1DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FA93193
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 02/14/22

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA93193-1	**SAEE-SB0012-010.0-20220214**					
No hits reported in this sample.						
FA93193-2	**SAEE-SB0012-011.0-20220214**					
No hits reported in this sample.						
FA93193-3	**SAEE-SB0012-020.0-20220214**					
No hits reported in this sample.						
FA93193-4	**SAEE-SB0362-006.0-20220214**					
No hits reported in this sample.						
FA93193-5	**SAEE-SB0362-007.0-20220214**					
No hits reported in this sample.						
FA93193-6	**SAEE-SB0362-008.0-20220214**					
No hits reported in this sample.						
FA93193-9	**SAEE-SB0307-006.0-20220214**					
No hits reported in this sample.						
FA93193-10	**SAEE-SB0357-010.0-20220214**					
No hits reported in this sample.						
FA93193-11	**SAEE-SB0356-006.0-20220214**					
Aroclor 1260 [a]		3080	290	230	ug/kg	SW846 8082A
FA93193-12	**SAEE-SB0356-007.0-20220214**					
No hits reported in this sample.						
FA93193-13	**SAEE-SB0356-008.0-20220214**					
No hits reported in this sample.						

Summary of Hits

Job Number: FA93193
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 02/14/22

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA93193-16	**SAEE-SB0360-005.0-20220214**					
No hits reported in this sample.						
FA93193-17	**SAEE-SB0360-006.0-20220214**					
No hits reported in this sample.						
FA93193-18	**SAEE-SB0360-007.0-20220214**					
No hits reported in this sample.						
FA93193-19	**SAEE-SB0360-008.0-20220214**					
No hits reported in this sample.						
FA93193-22	**SAEE-SB0326-006.0-20220214**					
No hits reported in this sample.						
FA93193-23	**SAEE-SB0326-007.0-20220214**					
No hits reported in this sample.						
FA93193-24	**SAEE-SB0326-008.0-20220214**					
No hits reported in this sample.						
FA93193-27	**SAEE-SB0325-006.0-20220214**					
No hits reported in this sample.						
FA93193-28	**SAEE-SB0325-007.0-20220214**					
No hits reported in this sample.						
FA93193-29	**SAEE-SB0325-008.0-20220214**					
No hits reported in this sample.						
FA93193-32	**SAEE-SB0374-000.5-20220214**					
Aroclor 1254 [b]		1000	48	38	ug/kg	SW846 8082A

Summary of Hits

Job Number: FA93193
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 02/14/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA93193-33	**SAEE-SB0374-001.0-20220214**					
Aroclor 1254 [b]		1590	53	42	ug/kg	SW846 8082A
FA93193-34	**SAEE-SB0374-002.0-20220214**					
Aroclor 1254 [a]		2880	63	50	ug/kg	SW846 8082A
FA93193-35	**SAEE-SB0374-003.0-20220214**					
Aroclor 1254 [a]		625	53	43	ug/kg	SW846 8082A
FA93193-36	**SAEE-SB0374-004.0-20220214**					

No hits reported in this sample.

(a) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ. Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0012-010.0-20220214		
Lab Sample ID:	FA93193-1	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114618.D	1	03/10/22 02:46	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	12.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	52	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	52	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	52	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	52	41	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	52	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	52	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	34%		10-163%
877-09-8	Tetrachloro-m-xylene	35%		10-163%
2051-24-3	Decachlorobiphenyl	41%		10-215%
2051-24-3	Decachlorobiphenyl	35%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-011.0-20220214		
Lab Sample ID:	FA93193-2	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114625.D	1	03/10/22 04:37	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		10-163%
877-09-8	Tetrachloro-m-xylene	98%		10-163%
2051-24-3	Decachlorobiphenyl	116%		10-215%
2051-24-3	Decachlorobiphenyl	116%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0012-020.0-20220214		
Lab Sample ID:	FA93193-3	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114626.D	1	03/10/22 04:53	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	111%		10-163%
877-09-8	Tetrachloro-m-xylene	111%		10-163%
2051-24-3	Decachlorobiphenyl	133%		10-215%
2051-24-3	Decachlorobiphenyl	133%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0362-006.0-20220214
Lab Sample ID: FA93193-4
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 02/14/22
Date Received: 02/15/22
Percent Solids: 65.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114627.D	1	03/10/22 05:09	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	12.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	49 U	62	49	29	ug/kg	
11104-28-2	Aroclor 1221	49 U	62	49	38	ug/kg	
11141-16-5	Aroclor 1232	49 U	62	49	39	ug/kg	
53469-21-9	Aroclor 1242	49 U	62	49	25	ug/kg	
12672-29-6	Aroclor 1248	58 U	62	58	55	ug/kg	
11097-69-1	Aroclor 1254	49 U	62	49	33	ug/kg	
11096-82-5	Aroclor 1260	49 U	62	49	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		10-163%
877-09-8	Tetrachloro-m-xylene	89%		10-163%
2051-24-3	Decachlorobiphenyl	97%		10-215%
2051-24-3	Decachlorobiphenyl	98%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-SB0362-007.0-20220214		
Lab Sample ID:	FA93193-5	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114628.D	1	03/10/22 05:24	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		10-163%
877-09-8	Tetrachloro-m-xylene	85%		10-163%
2051-24-3	Decachlorobiphenyl	106%		10-215%
2051-24-3	Decachlorobiphenyl	104%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0362-008.0-20220214		
Lab Sample ID:	FA93193-6	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114629.D	1	03/10/22 05:40	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	12.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	48	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	48	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	48	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	48	39	20	ug/kg	
12672-29-6	Aroclor 1248	45 U	48	45	43	ug/kg	
11097-69-1	Aroclor 1254	39 U	48	39	26	ug/kg	
11096-82-5	Aroclor 1260	39 U	48	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		10-163%
877-09-8	Tetrachloro-m-xylene	86%		10-163%
2051-24-3	Decachlorobiphenyl	94%		10-215%
2051-24-3	Decachlorobiphenyl	93%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SAEE-SB0307-006.0-20220214
Lab Sample ID: FA93193-9
Matrix: SO - Soil
Method: SW846 8082A SW846 3540C
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 02/14/22
Date Received: 02/15/22
Percent Solids: 62.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114634.D	1	03/10/22 06:59	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	56 U	70	56	33	ug/kg	
11104-28-2	Aroclor 1221	56 U	70	56	43	ug/kg	
11141-16-5	Aroclor 1232	56 U	70	56	45	ug/kg	
53469-21-9	Aroclor 1242	56 U	70	56	29	ug/kg	
12672-29-6	Aroclor 1248	66 U	70	66	62	ug/kg	
11097-69-1	Aroclor 1254	56 U	70	56	38	ug/kg	
11096-82-5	Aroclor 1260	56 U	70	56	30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		10-163%
877-09-8	Tetrachloro-m-xylene	83%		10-163%
2051-24-3	Decachlorobiphenyl	103%		10-215%
2051-24-3	Decachlorobiphenyl	100%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0357-010.0-20220214		
Lab Sample ID:	FA93193-10	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	68.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114635.D	1	03/10/22 07:15	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	56 U	70	56	32	ug/kg	
11104-28-2	Aroclor 1221	56 U	70	56	43	ug/kg	
11141-16-5	Aroclor 1232	56 U	70	56	44	ug/kg	
53469-21-9	Aroclor 1242	56 U	70	56	29	ug/kg	
12672-29-6	Aroclor 1248	65 U	70	65	62	ug/kg	
11097-69-1	Aroclor 1254	56 U	70	56	37	ug/kg	
11096-82-5	Aroclor 1260	56 U	70	56	30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		10-163%
877-09-8	Tetrachloro-m-xylene	82%		10-163%
2051-24-3	Decachlorobiphenyl	90%		10-215%
2051-24-3	Decachlorobiphenyl	92%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-006.0-20220214		
Lab Sample ID:	FA93193-11	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114636.D	1	03/10/22 07:31	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2 [a]	5G114819.D	5	03/14/22 20:35	ANJ	02/24/22 16:05	N:OP38262	N:G5G2919

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2	10.6 g	10.0 ml

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	52	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	3080 [b]	290	230	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	114%	123%	10-163%
877-09-8	Tetrachloro-m-xylene	116%	118%	10-163%
2051-24-3	Decachlorobiphenyl	136%	114%	10-215%
2051-24-3	Decachlorobiphenyl	148%	271% [c]	10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-007.0-20220214		
Lab Sample ID:	FA93193-12	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114637.D	1	03/10/22 07:47	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	12.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	43	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	39 U	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%		10-163%
877-09-8	Tetrachloro-m-xylene	52%		10-163%
2051-24-3	Decachlorobiphenyl	81%		10-215%
2051-24-3	Decachlorobiphenyl	83%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0356-008.0-20220214		
Lab Sample ID:	FA93193-13	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114638.D	1	03/10/22 08:03	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	11.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		10-163%
877-09-8	Tetrachloro-m-xylene	84%		10-163%
2051-24-3	Decachlorobiphenyl	107%		10-215%
2051-24-3	Decachlorobiphenyl	106%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-005.0-20220214		
Lab Sample ID:	FA93193-16	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114639.D	1	03/10/22 08:19	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		10-163%
877-09-8	Tetrachloro-m-xylene	123%		10-163%
2051-24-3	Decachlorobiphenyl	139%		10-215%
2051-24-3	Decachlorobiphenyl	145%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-006.0-20220214		
Lab Sample ID:	FA93193-17	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114640.D	1	03/10/22 08:34	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		10-163%
877-09-8	Tetrachloro-m-xylene	90%		10-163%
2051-24-3	Decachlorobiphenyl	99%		10-215%
2051-24-3	Decachlorobiphenyl	101%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-007.0-20220214		
Lab Sample ID:	FA93193-18	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114645.D	1	03/10/22 10:05	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	43	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	39 U	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		10-163%
877-09-8	Tetrachloro-m-xylene	93%		10-163%
2051-24-3	Decachlorobiphenyl	106%		10-215%
2051-24-3	Decachlorobiphenyl	105%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0360-008.0-20220214		
Lab Sample ID:	FA93193-19	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114646.D	1	03/10/22 10:21	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	54	50	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		10-163%
877-09-8	Tetrachloro-m-xylene	88%		10-163%
2051-24-3	Decachlorobiphenyl	96%		10-215%
2051-24-3	Decachlorobiphenyl	103%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-006.0-20220214		
Lab Sample ID:	FA93193-22	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114647.D	1	03/10/22 10:37	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254	43 U	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	22%		10-163%
877-09-8	Tetrachloro-m-xylene	18%		10-163%
2051-24-3	Decachlorobiphenyl	62%		10-215%
2051-24-3	Decachlorobiphenyl	62%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-007.0-20220214		
Lab Sample ID:	FA93193-23	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114648.D	1	03/10/22 10:53	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		10-163%
877-09-8	Tetrachloro-m-xylene	88%		10-163%
2051-24-3	Decachlorobiphenyl	91%		10-215%
2051-24-3	Decachlorobiphenyl	90%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0326-008.0-20220214		
Lab Sample ID:	FA93193-24	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114649.D	1	03/10/22 11:09	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	60	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	60	48	37	ug/kg	
11141-16-5	Aroclor 1232	48 U	60	48	38	ug/kg	
53469-21-9	Aroclor 1242	48 U	60	48	25	ug/kg	
12672-29-6	Aroclor 1248	56 U	60	56	53	ug/kg	
11097-69-1	Aroclor 1254	48 U	60	48	32	ug/kg	
11096-82-5	Aroclor 1260	48 U	60	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		10-163%
877-09-8	Tetrachloro-m-xylene	100%		10-163%
2051-24-3	Decachlorobiphenyl	102%		10-215%
2051-24-3	Decachlorobiphenyl	106%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-006.0-20220214		
Lab Sample ID:	FA93193-27	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114650.D	1	03/10/22 11:25	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	11.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	49	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	49	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	49	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	49	40	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	40 U	49	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	49	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		10-163%
877-09-8	Tetrachloro-m-xylene	110%		10-163%
2051-24-3	Decachlorobiphenyl	114%		10-215%
2051-24-3	Decachlorobiphenyl	117%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-007.0-20220214		
Lab Sample ID:	FA93193-28	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114651.D	1	03/10/22 11:40	ANJ	02/24/22 16:05	N:OP38262	N:G5G2915
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	59	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	59	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	59	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	59	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	59	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	59	47	32	ug/kg	
11096-82-5	Aroclor 1260	47 U	59	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		10-163%
877-09-8	Tetrachloro-m-xylene	109%		10-163%
2051-24-3	Decachlorobiphenyl	120%		10-215%
2051-24-3	Decachlorobiphenyl	125%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0325-008.0-20220214		
Lab Sample ID:	FA93193-29	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	81.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114669.D	1	03/10/22 17:18	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	47 U	58	47	27	ug/kg	
11104-28-2	Aroclor 1221	47 U	58	47	36	ug/kg	
11141-16-5	Aroclor 1232	47 U	58	47	37	ug/kg	
53469-21-9	Aroclor 1242	47 U	58	47	24	ug/kg	
12672-29-6	Aroclor 1248	55 U	58	55	52	ug/kg	
11097-69-1	Aroclor 1254	47 U	58	47	31	ug/kg	
11096-82-5	Aroclor 1260	47 U	58	47	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		10-163%
877-09-8	Tetrachloro-m-xylene	93%		10-163%
2051-24-3	Decachlorobiphenyl	99%		10-215%
2051-24-3	Decachlorobiphenyl	92%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0374-000.5-20220214		
Lab Sample ID:	FA93193-32	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114672.D	1	03/10/22 18:07	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	38 U	48	38	22	ug/kg	
11104-28-2	Aroclor 1221	38 U	48	38	30	ug/kg	
11141-16-5	Aroclor 1232	38 U	48	38	31	ug/kg	
53469-21-9	Aroclor 1242	38 U	48	38	20	ug/kg	
12672-29-6	Aroclor 1248	45 U	48	45	43	ug/kg	
11097-69-1	Aroclor 1254 [b]	1000	48	38	26	ug/kg	
11096-82-5	Aroclor 1260	38 U	48	38	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		10-163%
877-09-8	Tetrachloro-m-xylene	99%		10-163%
2051-24-3	Decachlorobiphenyl	108%		10-215%
2051-24-3	Decachlorobiphenyl	158%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0374-001.0-20220214		
Lab Sample ID:	FA93193-33	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114673.D	1	03/10/22 18:23	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	53	42	25	ug/kg	
11104-28-2	Aroclor 1221	42 U	53	42	33	ug/kg	
11141-16-5	Aroclor 1232	42 U	53	42	34	ug/kg	
53469-21-9	Aroclor 1242	42 U	53	42	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	47	ug/kg	
11097-69-1	Aroclor 1254 [b]	1590	53	42	28	ug/kg	
11096-82-5	Aroclor 1260	42 U	53	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		10-163%
877-09-8	Tetrachloro-m-xylene	110%		10-163%
2051-24-3	Decachlorobiphenyl	126%		10-215%
2051-24-3	Decachlorobiphenyl	200%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0374-002.0-20220214		
Lab Sample ID:	FA93193-34	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114678.D	1	03/10/22 19:42	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	10.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	50 U	63	50	29	ug/kg	
11104-28-2	Aroclor 1221	50 U	63	50	39	ug/kg	
11141-16-5	Aroclor 1232	50 U	63	50	40	ug/kg	
53469-21-9	Aroclor 1242	50 U	63	50	26	ug/kg	
12672-29-6	Aroclor 1248	59 U	63	59	56	ug/kg	
11097-69-1	Aroclor 1254	2880	63	50	34	ug/kg	
11096-82-5	Aroclor 1260	50 U	63	50	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		10-163%
877-09-8	Tetrachloro-m-xylene	97%		10-163%
2051-24-3	Decachlorobiphenyl	105%		10-215%
2051-24-3	Decachlorobiphenyl	268% [b]		10-215%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0374-003.0-20220214		
Lab Sample ID:	FA93193-35	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	87.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114679.D	1	03/10/22 19:58	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	53	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	53	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	53	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	53	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	53	50	48	ug/kg	
11097-69-1	Aroclor 1254	625	53	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	53	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		10-163%
877-09-8	Tetrachloro-m-xylene	101%		10-163%
2051-24-3	Decachlorobiphenyl	146%		10-215%
2051-24-3	Decachlorobiphenyl	167%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0374-004.0-20220214		
Lab Sample ID:	FA93193-36	**Date Sampled:**	02/14/22
Matrix:	SO - Soil	**Date Received:**	02/15/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5G114680.D	1	03/10/22 20:14	ANJ	02/24/22 15:05	N:OP38263	N:G5G2916
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	116%		10-163%
877-09-8	Tetrachloro-m-xylene	115%		10-163%
2051-24-3	Decachlorobiphenyl	133%		10-215%
2051-24-3	Decachlorobiphenyl	125%		10-215%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

FA93193

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merrit Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0012-010.0-20220214	2/14/22	10:35	HF	SO	1										X	
2	SAEE-SB0012-011.0-20220214	2/14/22	10:40	HF	SO	1										X	
3	SAEE-SB0012-020.0-20220214	2/14/22	10:45	HF	SO	1										X	
4	SAEE-SB0362-006.0-20220214	2/14/22	10:53	HF	SO	1										X	
5	SAEE-SB0362-007.0-20220214	2/14/22	10:55	HF	SO	1										X	
6	SAEE-SB0362-008.0-20220214	2/14/22	10:57	HF	SO	1										X	
7	SAEE-SB0362-009.0-20220214	2/14/22	10:59	HF	SO	1										X	
8	SAEE-SB0362-010.0-20220214	2/14/22	11:02	HF	SO	1										X	
9	SAEE-SB0307-006.0-20220214	2/14/22	11:21	HF	SO	1										X	
10	SAEE-SB0357-010.0-20220214	2/14/22	11:32	HF	SO	1										X	
11	SAEE-SB0356-006.0-20220214	2/14/22	11:50	HF	SO	1										X	
12	SAEE-SB0356-007.0-20220214	2/14/22	11:52	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark:

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	2-15-22 13:40	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

2/15/22 1240

Lab Use Only: Cooler Temperature (s) Celsius (corrected): 3.6 FR4 2.8

http://www.sgs.com/en/terms-and-conditions

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5.1 5

FA93193: Chain of Custody
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SGS North America Inc - Orlando

Chain of Custody

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FA93193

SGS - ORLANDO JOB # : PAGE 2 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information | **Project Information** | **Analytical Informatio** | **Matrix Codes**

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merrit Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
13	SAEE-SB0356-008.0-20220214	2/14/22	11:54	HF	SO	1										X	
14	SAEE-SB0356-009.0-20220214	2/14/22	11:56	HF	SO	1										X	
15	SAEE-SB0356-010.0-20220214	2/14/22	11:58	HF	SO	1										X	
16	SAEE-SB0360-005.0-20220214	2/14/22	12:05	HF	SO	1										X	
17	SAEE-SB0360-006.0-20220214	2/14/22	12:07	HF	SO	1										X	
18	SAEE-SB0360-007.0-20220214	2/14/22	12:09	HF	SO	1										X	
19	SAEE-SB0360-008.0-20220214	2/14/22	12:11	HF	SO	1										X	
20	SAEE-SB0360-009.0-20220214	2/14/22	12:13	HF	SO	1										X	
21	SAEE-SB0360-010.0-20220214	2/14/22	12:15	HF	SO	1										X	
22	SAEE-SB0326-006.0-20220214	2/14/22	12:20	HF	SO	1										X	
23	SAEE-SB0326-007.0-20220214	2/14/22	12:22	HF	SO	1										X	
24	SAEE-SB0326-008.0-20220214	2/14/22	12:24	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remark:

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	2-15-22 10:40	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 2-14-22 Soil.xls Rev 031318

FA93193: Chain of Custody
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FA93193

SGS North America Inc - Orlando

Chain of Custody

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TEL 407-425-6700 FAX: 407-425-0707
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SGS - ORLANDO JOB # : PAGE 3 OF 3

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information	Project Information
Company Name: HGL, Inc.	Project Name: PRL 227, LOC 3 Confirmatory Sampling
Address: 2405 N. Courtney Parkway, STE 203	Street Kennedy Space Center
City: Merrit Island State: FL Zip:32937	City Merritt Island State FL
Project Contact: Denise Rivers Email:drivers@hgl.com	Project # NS1005.12.04
Phone #:910-233-8460	Fax #
Sampler(s) Name(s) (Printed) Sampler 1: Howard Fowler Sampler 2: Tim Jellet	Client Purchase Order #

Analytical Informatio

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0326-009.0-20220214	2/14/22	12:26	HF	SO	1										X	
26	SAEE-SB0326-010.0-20220214	2/14/22	12:28	HF	SO	1										X	
27	SAEE-SB0325-006.0-20220214	2/14/22	12:45	HF	SO	1										X	
28	SAEE-SB0325-007.0-20220214	2/14/22	12:47	HF	SO	1										X	
29	SAEE-SB0325-008.0-20220214	2/14/22	12:49	HF	SO	1										X	
30	SAEE-SB0325-009.0-20220214	2/14/22	12:51	HF	SO	1										X	
31	SAEE-SB0325-010.0-20220214	2/14/22	12:53	HF	SO	1										X	
32	SAEE-SB0374-000.5-20220214	2/14/22	13:11	HF	SO	1										X	
33	SAEE-SB0374-001.0-20220214	2/14/22	13:13	HF	SO	1										X	
34	SAEE-SB0374-002.0-20220214	2/14/22	13:15	HF	SO	1										X	
35	SAEE-SB0374-003.0-20220214	2/14/22	13:17	HF	SO	1										X	
36	SAEE-SB0374-004.0-20220214	2/14/22	13:19	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	2-15-22 10:40	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 2-14-22 Soil.xls Rev 031318

SGS Sample Receipt Summary

Job Number: FA93193 **Client:** HGL **Project:** PRL 227, LOC 3 CONFIRMATORY SAMPLING

Date / Time Received: 2/15/2022 12:40:00 PM **Delivery Method:** DO **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 2

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6); Cooler 2: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (4.0); Cooler 2: (3.2);

Cooler Information	Y	N
1. Custody Seals Present	☑	☐
2. Custody Seals Intact	☑	☐
3. Temp criteria achieved	☑	☐
4. Cooler temp verification	IR Gun	
5. Cooler media	Ice (Bag)	

Trip Blank Information	Y	N	N/A
1. Trip Blank present / cooler	☐	☐	☑
2. Trip Blank listed on COC	☐	☐	☑

	W	S	N/A
3. Type Of TB Received	☐	☐	☑

Sample Information	Y	N	N/A
1. Sample labels present on bottles	☑	☐	
2. Samples preserved properly	☑	☐	
3. Sufficient volume/containers recvd for analysis:	☑	☐	
4. Condition of sample	Intact		
5. Sample recvd within HT	☑	☐	
6. Dates/Times/IDs on COC match Sample Label	☑	☐	
7. VOCs have headspace	☐	☐	☑
8. Bottles received for unspecified tests	☐	☑	
9. Compositing instructions clear	☐	☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐	☐	☑
11. % Solids Jar received?	☐	☐	☑
12. Residual Chlorine Present?	☐	☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 2/15/2022 12:40:00 P Reviewer: _____ Date: _____

FA93193

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information | **Project Information** | **Analytical Information** | **Matrix Codes**

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	P8082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0012-010 0-20220214	2/14/22	10:35	HF	SO	1	X	
2	SAEE-SB0012-011 0-20220214	2/14/22	10:40	HF	SO	1	X	
3	SAEE-SB0012-020 0-20220214	2/14/22	10:45	HF	SO	1	X	
4	SAEE-SB0362-006 0-20220214	2/14/22	10:53	HF	SO	1	X	
5	SAEE-SB0362-007 0-20220214	2/14/22	10:55	HF	SO	1	X	
6	SAEE-SB0362-008 0-20220214	2/14/22	10:57	HF	SO	1	X	
7	SAEE-SB0362-009 0-20220214	2/14/22	10:59	HF	SO	1	X	HOLD
8	SAEE-SB0362-010 0-20220214	2/14/22	11:02	HF	SO	1	X	HOLD
9	SAEE-SB0307-006 0-20220214	2/14/22	11:21	HF	SO	1	X	
10	SAEE-SB0357-010 0-20220214	2/14/22	11:32	HF	SO	1	X	
11	SAEE-SB0356-006 0-20220214	2/14/22	11:50	HF	SO	1	X	
12	SAEE-SB0356-007 0-20220214	2/14/22	11:52	HF	SO	1	X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT
LABEL VERIFICATION SM

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2 2/15/22	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6 1240	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.6 DR 2.8 IR

http://www.sgs.com/en/terms-and-conditions

COC PRL-227 2-14-22 Soil xls Rev 031318

FA93193

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 2 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	P8082SOXHLETPCB SOL104	LAB USE ONLY
13	SAEE-SB0356-008 0-20220214	2/14/22	11:54	HF	SO	1	X	
14	SAEE-SB0356-009 0-20220214	2/14/22	11:56	HF	SO	1	X	HOLD
15	SAEE-SB0356-010 0-20220214	2/14/22	11:58	HF	SO	1	X	HOLD
16	SAEE-SB0360-005 0-20220214	2/14/22	12:05	HF	SO	1	X	
17	SAEE-SB0360-006 0-20220214	2/14/22	12:07	HF	SO	1	X	
18	SAEE-SB0360-007 0-20220214	2/14/22	12:09	HF	SO	1	X	
19	SAEE-SB0360-008 0-20220214	2/14/22	12:11	HF	SO	1	X	
20	SAEE-SB0360-009 0-20220214	2/14/22	12:13	HF	SO	1	X	HOLD
21	SAEE-SB0360-010 0-20220214	2/14/22	12:15	HF	SO	1	X	HOLD
22	SAEE-SB0326-006 0-20220214	2/14/22	12:20	HF	SO	1	X	
23	SAEE-SB0326-007 0-20220214	2/14/22	12:22	HF	SO	1	X	
24	SAEE-SB0326-008 0-20220214	2/14/22	12:24	HF	SO	1	X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☐ FULLT1 (EPA LEVEL 4)
☐ EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2 2/15/22	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6 1240	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

5.1.5

FA93193

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 3 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	MeOH+DI	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0326-009 0-20220214	2/14/22	12:26	HF	SO	1										X	HOLD
26	SAEE-SB0326-010 0-20220214	2/14/22	12:28	HF	SO	1										X	HOLD
27	SAEE-SB0325-006 0-20220214	2/14/22	12:45	HF	SO	1										X	
28	SAEE-SB0325-007 0-20220214	2/14/22	12:47	HF	SO	1										X	
29	SAEE-SB0325-008 0-20220214	2/14/22	12:49	HF	SO	1										X	
30	SAEE-SB0325-009 0-20220214	2/14/22	12:51	HF	SO	1										X	HOLD
31	SAEE-SB0325-010 0-20220214	2/14/22	12:53	HF	SO	1										X	HOLD
32	SAEE-SB0374-000 5-20220214	2/14/22	13:11	HF	SO	1										X	
33	SAEE-SB0374-001 0-20220214	2/14/22	13:13	HF	SO	1										X	
34	SAEE-SB0374-002 0-20220214	2/14/22	13:15	HF	SO	1										X	
35	SAEE-SB0374-003 0-20220214	2/14/22	13:17	HF	SO	1										X	
36	SAEE-SB0374-004 0-20220214	2/14/22	13:19	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark:

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6 2/15/22	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 12.4°

http://www.sgs.com/en/terms-and-conditions

5.1.5

QC Evaluation: DOD QSM5.x Limits

Job Number: FA93193
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 02/14/22

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits Found.

* Sample used for QC is not from job FA93193

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody

SD

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #: JS-021022.186
SGS Quote #:
SGS Job #: FA93193

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Billing Information (if different from Report to)	
City: Orlando State: FL Zip: 32811	City: State:	Company Name:	
Project Contact: jean.dent-smith@sgs.com E-mail:	Project #:	Street Address:	
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	City: State: Zip:	
Sampler(s) Name(s): HF Phone:	Project Manager:	Attention:	

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB_SOL104	HOLD	LAB USE ONLY
1	SAEE-SB0012-010.0-20220214		2/14/22	10:35:00 AM	HF	SO	1					1				X		
2	SAEE-SB0012-011.0-20220214		2/14/22	10:40:00 AM	HF	SO	1					1				X		
3	SAEE-SB0012-020.0-20220214		2/14/22	10:45:00 AM	HF	SO	1					1				X		
4	SAEE-SB0362-006.0-20220214		2/14/22	10:53:00 AM	HF	SO	1					1				X		
5	SAEE-SB0632-007.0-20220214		2/14/22	10:55:00 AM	HF	SO	1					1				X		
6	SAEE-SB0362-008.0-20220214		2/14/22	10:57:00 AM	HF	SO	1					1				X		
7	SAEE-SB0362-009.0-20220214		2/14/22	10:59:00 AM	HF	SO	1					1					X	
8	SAEE-SB0362-010.0-20220214		2/14/22	11:02:00 AM	HF	SO	1					1					X	
9	SAEE-SB0307-006.0-20220214		2/14/22	11:21:00 AM	HF	SO	1					1				X		
10	SAEE-SB0357-010.0-20220214		2/14/22	11:32:00 AM	HF	SO	1					1				X		
11	SAEE-SB0356-006.0-20220214		2/14/22	11:50:00 AM	HF	SO	1					1				X		
12	SAEE-SB0356-007.0-20220214		2/14/22	11:52:00 AM	HF	SO	1					1				X		

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 3/1/2022

Initial Assessment KGB
Label Verification

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1 fedex	2 fedex	2-17-22 10.10	2
3		3	4		4
5		5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☑ Cooler Temp. 3.4 3.8 CP 2.9

CHAIN OF CUSTODY

SGS

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: FA93193

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL	
Street Address: 4405 Vineland Rd, Suite C-15	Street:	Company Name:
City: Orlando State: FL Zip: 32811	City: State:	Street Address:
Project Contact: jean.dent-smith@sgs.com E-mail:	Project #:	City: State: Zip:
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	Attention:
Sampler(s) Name(s): HF Phone:	Project Manager:	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P802SOXHLETPCB_SOL104	HOLD	LAB USE ONLY
13	SAEE-SB0356-008.0-20220214		2/14/22	11:54:00 AM	HF	SO	1					1				X		
14	SAEE-SB0356-009.0-20220214		2/14/22	11:56:00 AM	HF	SO	1					1					X	
15	SAEE-SB0356-010.0-20220214		2/14/22	11:58:00 AM	HF	SO	1					1					X	
16	SAEE-SB0360-005.0-20220214		2/14/22	12:05:00 PM	HF	SO	1					1				X		
17	SAEE-SB0360-006.0-20220214		2/14/22	12:07:00 PM	HF	SO	1					1				X		
18	SAEE-SB0360-007.0-20220214		2/14/22	12:09:00 PM	HF	SO	1					1				X		
19	SAEE-SB0360-008.0-20220214		2/14/22	12:11:00 PM	HF	SO	1					1				X		
20	SAEE-SB0360-009.0-20220214		2/14/22	12:13:00 PM	HF	SO	1					1					X	
21	SAEE-SB0360-010.0-20220214		2/14/22	12:15:00 PM	HF	SO	1					1					X	
22	SAEE-SB0326-006.0-20220214		2/14/22	12:20:00 PM	HF	SO	1					1				X		
23	SAEE-SB0326-007.0-20220214		2/14/22	12:22:00 PM	HF	SO	1					1				X		
24	SAEE-SB0326-008.0-20220214		2/14/22	12:24:00 PM	HF	SO	1					1				X		

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 3/1/2022

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By	Date Time:	Received By:
1		1 Fedex	2 Fedex	10:10 2-17-22	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp
5		5	☐ Intact ☐ Not intact	☐ Therm. ID:	☐	3.4 3.5 3.6 CTP

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FA93193

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jean.dent-smith@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): HF Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	P8082SOXHLETPCB ,SOL104 ,	HOLD	LAB USE ONLY
25	SAEE-SB0326-009.0-20220214		2/14/22	12:26:00 PM	HF	SO	1					1					X	
26	SAEE-SB0326-010.0-20220214		2/14/22	12:28:00 PM	HF	SO	1					1					X	
27	SAEE-SB0325-006.0-20220214		2/14/22	12:45:00 PM	HF	SO	1					1				X		
28	SAEE-SB0325-007.0-20220214		2/14/22	12:47:00 PM	HF	SO	1					1				X		
29	SAEE-SB0325-008.0-20220214		2/14/22	12:49:00 PM	HF	SO	1					1				X		
30	SAEE-SB0325-009.0-20220214		2/14/22	12:51:00 PM	HF	SO	1					1					X	
31	SAEE-SB0325-010.0-20220214		2/14/22	12:53:00 PM	HF	SO	1					1					X	
32	SAEE-SB0374-000.5-20220214		2/14/22	1:11:00 PM	HF	SO	1					1				X		
33	SAEE-SB0374-001.0-20220214		2/14/22	1:13:00 PM	HF	SO	1					1				X		
34	SAEE-SB0374-002.0-20220214		2/14/22	1:15:00 PM	HF	SO	1					1				X		
35	SAEE-SB0374-003.0-20220214		2/14/22	1:17:00 PM	HF	SO	1					1				X		
36	SAEE-SB0374-004.0-20220214		2/14/22	1:19:00 PM	HF	SO	1					1				X		

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 3/1/2022

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1 fedex	2 fedex	10:40 2-17-22	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐	Cooler Temp. 3.4 3.8 CEP 2.9
5		5				

SGS Sample Receipt Summary

Job Number: FA93193 **Client:** _____ **Project:** _____

Date / Time Received: 2/17/2022 10:10:00 AM **Delivery Method:** Fed Ex **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.4); Cooler 2: (3.8); Cooler 3: (2.9);

Cooler Temps (Corrected) °C: Cooler 1: (1.8); Cooler 2: (2.2); Cooler 3: (1.3);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	3		

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

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

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

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

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

FA93193: Chain of Custody
Page 4 of 4

GC/LC Semi-volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

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

Method Blank Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38263-MB1	5G114667.D	1	03/10/22	CL	02/24/22	OP38263	G5G2916

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-29, FA93193-32, FA93193-33, FA93193-34, FA93193-35, FA93193-36

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	102%	10-163%
877-09-8	Tetrachloro-m-xylene	99%	10-163%
2051-24-3	Decachlorobiphenyl	116%	10-215%
2051-24-3	Decachlorobiphenyl	103%	10-215%

Method Blank Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38262-MB1	5G114612.D	1	03/10/22	CP	02/24/22	OP38262	G5G2915

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-1, FA93193-2, FA93193-3, FA93193-4, FA93193-5, FA93193-6, FA93193-9, FA93193-10, FA93193-11, FA93193-12, FA93193-13, FA93193-16, FA93193-17, FA93193-18, FA93193-19, FA93193-22, FA93193-23, FA93193-24, FA93193-27, FA93193-28

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	50	23	ug/kg	
11104-28-2	Aroclor 1221	ND	50	31	ug/kg	
11141-16-5	Aroclor 1232	ND	50	32	ug/kg	
53469-21-9	Aroclor 1242	ND	50	21	ug/kg	
12672-29-6	Aroclor 1248	ND	50	45	ug/kg	
11097-69-1	Aroclor 1254	ND	50	27	ug/kg	
11096-82-5	Aroclor 1260	ND	50	21	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	92%	10-163%
877-09-8	Tetrachloro-m-xylene	96%	10-163%
2051-24-3	Decachlorobiphenyl	121%	10-215%
2051-24-3	Decachlorobiphenyl	119%	10-215%

Blank Spike Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38263-BS1	5G114668.D	1	03/10/22	CL	02/24/22	OP38263	G5G2916

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-29, FA93193-32, FA93193-33, FA93193-34, FA93193-35, FA93193-36

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	242	121	53-157
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	235	118 [a]	53-159

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	95%	10-163%
877-09-8	Tetrachloro-m-xylene	96%	10-163%
2051-24-3	Decachlorobiphenyl	101%	10-215%
2051-24-3	Decachlorobiphenyl	89%	10-215%

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38262-BS1	5G114613.D	1	03/10/22	CP	02/24/22	OP38262	G5G2915

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-1, FA93193-2, FA93193-3, FA93193-4, FA93193-5, FA93193-6, FA93193-9, FA93193-10, FA93193-11, FA93193-12, FA93193-13, FA93193-16, FA93193-17, FA93193-18, FA93193-19, FA93193-22, FA93193-23, FA93193-24, FA93193-27, FA93193-28

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	200	239	120	53-157
11104-28-2	Aroclor 1221		ND		50-150
11141-16-5	Aroclor 1232		ND		50-150
53469-21-9	Aroclor 1242		ND		50-150
12672-29-6	Aroclor 1248		ND		50-150
11097-69-1	Aroclor 1254		ND		50-150
11096-82-5	Aroclor 1260	200	265	133	53-159

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	108%	10-163%
877-09-8	Tetrachloro-m-xylene	124%	10-163%
2051-24-3	Decachlorobiphenyl	131%	10-215%
2051-24-3	Decachlorobiphenyl	130%	10-215%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38263-MS	5G114670.D	1	03/10/22	CL	02/24/22	OP38263	G5G2916
OP38263-MSD	5G114671.D	1	03/10/22	CL	02/24/22	OP38263	G5G2916
FA93193-29	5G114669.D	1	03/10/22	CL	02/24/22	OP38263	G5G2916

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-29, FA93193-32, FA93193-33, FA93193-34, FA93193-35, FA93193-36

CAS No.	Compound	FA93193-29 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	58	U	213	224	105	223	258	116	14	10-243/69
11104-28-2	Aroclor 1221	58	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	58	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	58	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	58	U		ND			ND		nc	50-150/19
11097-69-1	Aroclor 1254	58	U		ND			ND		nc	50-150/67
11096-82-5	Aroclor 1260	58	U	213	250	117	223	276	124	10	10-200/64

CAS No.	Surrogate Recoveries	MS	MSD	FA93193-29	Limits
877-09-8	Tetrachloro-m-xylene	95%	104%	91%	10-163%
877-09-8	Tetrachloro-m-xylene	98%	107%	93%	10-163%
2051-24-3	Decachlorobiphenyl	103%	109%	99%	10-215%
2051-24-3	Decachlorobiphenyl	97%	104%	92%	10-215%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA93193
Account: ALSE SGS Orlando, FL
Project: HGLFLMI: TQN 118 NASA PRLs; KSC, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP38262-MS	5G114623.D	1	03/10/22	CP	02/24/22	OP38262	G5G2915
OP38262-MSD	5G114624.D	1	03/10/22	CP	02/24/22	OP38262	G5G2915
FA93193-1	5G114618.D	1	03/10/22	CP	02/24/22	OP38262	G5G2915

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA93193-1, FA93193-2, FA93193-3, FA93193-4, FA93193-5, FA93193-6, FA93193-9, FA93193-10, FA93193-11, FA93193-12, FA93193-13, FA93193-16, FA93193-17, FA93193-18, FA93193-19, FA93193-22, FA93193-23, FA93193-24, FA93193-27, FA93193-28

CAS No.	Compound	FA93193-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	52	U	235	223	95	211	183	87	20	10-243/69
11104-28-2	Aroclor 1221	52	U		ND			ND		nc	50-150/30
11141-16-5	Aroclor 1232	52	U		ND			ND		nc	50-150/30
53469-21-9	Aroclor 1242	52	U		ND			ND		nc	50-150/11
12672-29-6	Aroclor 1248	52	U		ND			ND		nc	50-150/19
11097-69-1	Aroclor 1254	52	U		ND			ND		nc	50-150/67
11096-82-5	Aroclor 1260	52	U	235	260	111	211	220	104	17	10-200/64

CAS No.	Surrogate Recoveries	MS	MSD	FA93193-1	Limits
877-09-8	Tetrachloro-m-xylene	86%	82%	34%	10-163%
877-09-8	Tetrachloro-m-xylene	101%	84%	35%	10-163%
2051-24-3	Decachlorobiphenyl	103%	95%	41%	10-215%
2051-24-3	Decachlorobiphenyl	102%	95%	35%	10-215%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1006.03.03

SGS Job Number: FC1396

Sampling Date: 12/14/22

Report to:

Hydrogeologic, Inc.

hfowler@hgl.com

ATTN: Howard F. Fowler

Total number of pages in report: **18**

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

Norm Farmer
Technical Director

Client Service contact: Ariel Hartney 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

January 13, 2023

Mr. Tim Jellett
HydroGeoLogic, Inc.
2405 N. Courtenay Parkway, Suite 203
Merritt Island, FL 32953

RE: SGS North America Inc. - Orlando job FC1396 Reissue

Dear Mr. Jellett,

The final report for job number FC1396 has been edited to reflect the following change(s):

Full list VOCs now reported.

Please let us know if we can be of further assistance.

Sincerely,

SGS North America, Inc. - Orlando

Sections: 1 2 3 4 5

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Sample Summary

Hydrogeologic, Inc.

Job No: FC1396

TQN 118 NASA PRLs; KSC, FL
Project No: NS1006.03.03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC1396-1	12/14/22	10:00	WD	12/16/22	AQ	Trip Blank Water	SAEE-TB-20221214-01
FC1396-2	12/14/22	11:32	WD	12/16/22	AQ	Water	SAEE-MW0001-010.0-20221214

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FC1396

Site: TQN 118 NASA PRLs; KSC, FL **Report Revised Date:**01/13/2023 11:52:38AM

On 12/16/2022, 1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 1.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC1396 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** VI2790

Sample(s) FC1425-11MS, FC1425-11MSD were used as the QC samples indicated.

FC1396-1 for Chloroethane: Associated CCV and BS outside of DOD QSM control limits high, sample is ND.

FC1396-1 for Methyl Bromide: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC1396-2 for Chloroethane: Associated CCV and BS outside of DOD QSM control limits high, sample is ND.

FC1396-2 for Methyl Bromide: Associated CCV outside of DOD QSM control limits high, sample is ND.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP94596

Sample(s) FC1324-3MS, FC1324-3MSD were used as the QC samples indicated.

FC1396-2 for Aroclor 1221: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative revised January 13, 2023 by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC1396
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 12/14/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC1396-1	**SAEE-TB-20221214-01**					
No hits reported in this sample.						
FC1396-2	**SAEE-MW0001-010.0-20221214**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: SAEE-TB-20221214-01
Lab Sample ID: FC1396-1
Matrix: AQ - Trip Blank Water
Method: SW846 8260D
Project: TQN 118 NASA PRLs; KSC, FL

Date Sampled: 12/14/22
Date Received: 12/16/22
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I753675.D	1	12/19/22 10:30	KG	n/a	n/a	VI2790
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
108-86-1	Bromobenzene	0.50 U	1.0	0.50	0.37	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
104-51-8	n-Butylbenzene	0.50 U	1.0	0.50	0.23	ug/l	
135-98-8	sec-Butylbenzene	0.50 U	1.0	0.50	0.24	ug/l	
98-06-6	tert-Butylbenzene	0.50 U	1.0	0.50	0.31	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane [a]	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
95-49-8	o-Chlorotoluene	0.50 U	1.0	0.50	0.22	ug/l	
106-43-4	p-Chlorotoluene	0.50 U	1.0	0.50	0.31	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
142-28-9	1,3-Dichloropropane	0.50 U	1.0	0.50	0.31	ug/l	
594-20-7	2,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SAEE-TB-20221214-01		
Lab Sample ID:	FC1396-1	**Date Sampled:**	12/14/22
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/16/22
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

VOA 8260 List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
563-58-6	1,1-Dichloropropene	0.50 U	1.0	0.50	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
87-68-3	Hexachlorobutadiene	1.0 U	2.0	1.0	0.30	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
99-87-6	p-Isopropyltoluene	0.50 U	1.0	0.50	0.21	ug/l	
74-83-9	Methyl Bromide [b]	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
74-95-3	Methylene Bromide	0.50 U	2.0	0.50	0.37	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
91-20-3	Naphthalene	2.0 U	5.0	2.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.50 U	1.0	0.50	0.29	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.50 U	1.0	0.50	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	1.0 U	2.0	1.0	0.63	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.50 U	1.0	0.50	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.50 U	1.0	0.50	0.27	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	100%		85-112%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-TB-20221214-01		
Lab Sample ID:	FC1396-1	**Date Sampled:**	12/14/22
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/16/22
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Associated CCV and BS outside of DOD QSM control limits high, sample is ND.
(b) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-MW0001-010.0-20221214		
Lab Sample ID:	FC1396-2	**Date Sampled:**	12/14/22
Matrix:	AQ - Water	**Date Received:**	12/16/22
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I753682.D	1	12/19/22 13:15	KG	n/a	n/a	VI2790
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
108-86-1	Bromobenzene	0.50 U	1.0	0.50	0.37	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
104-51-8	n-Butylbenzene	0.50 U	1.0	0.50	0.23	ug/l	
135-98-8	sec-Butylbenzene	0.50 U	1.0	0.50	0.24	ug/l	
98-06-6	tert-Butylbenzene	0.50 U	1.0	0.50	0.31	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane [a]	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
95-49-8	o-Chlorotoluene	0.50 U	1.0	0.50	0.22	ug/l	
106-43-4	p-Chlorotoluene	0.50 U	1.0	0.50	0.31	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
142-28-9	1,3-Dichloropropane	0.50 U	1.0	0.50	0.31	ug/l	
594-20-7	2,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-MW0001-010.0-20221214		
Lab Sample ID:	FC1396-2	**Date Sampled:**	12/14/22
Matrix:	AQ - Water	**Date Received:**	12/16/22
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

VOA 8260 List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
563-58-6	1,1-Dichloropropene	0.50 U	1.0	0.50	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
87-68-3	Hexachlorobutadiene	1.0 U	2.0	1.0	0.30	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
99-87-6	p-Isopropyltoluene	0.50 U	1.0	0.50	0.21	ug/l	
74-83-9	Methyl Bromide [b]	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
74-95-3	Methylene Bromide	0.50 U	2.0	0.50	0.37	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
91-20-3	Naphthalene	2.0 U	5.0	2.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.50 U	1.0	0.50	0.29	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.50 U	1.0	0.50	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	1.0 U	2.0	1.0	0.63	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.50 U	1.0	0.50	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.50 U	1.0	0.50	0.27	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	99%		85-112%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-MW0001-010.0-20221214		
Lab Sample ID:	FC1396-2	**Date Sampled:**	12/14/22
Matrix:	AQ - Water	**Date Received:**	12/16/22
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		83-118%

(a) Associated CCV and BS outside of DOD QSM control limits high, sample is ND.
(b) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-MW0001-010.0-20221214		
Lab Sample ID:	FC1396-2	**Date Sampled:**	12/14/22
Matrix:	AQ - Water	**Date Received:**	12/16/22
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM81206.D	1	12/20/22 15:24	EM	12/19/22 07:55	OP94596	GMM1757
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	0.20 U	0.40	0.20	0.16	ug/l	
11104-28-2	Aroclor 1221 [a]	0.30 U	0.40	0.30	0.20	ug/l	
11141-16-5	Aroclor 1232	0.30 U	0.40	0.30	0.20	ug/l	
53469-21-9	Aroclor 1242	0.20 U	0.40	0.20	0.16	ug/l	
12672-29-6	Aroclor 1248	0.20 U	0.40	0.20	0.16	ug/l	
11097-69-1	Aroclor 1254	0.20 U	0.40	0.20	0.16	ug/l	
11096-82-5	Aroclor 1260	0.20 U	0.40	0.20	0.16	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		38-127%
2051-24-3	Decachlorobiphenyl	83%		25-137%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FC1396

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB #: PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF #

Client / Reporting Information

Company Name: HydroGeoLogic, INC
Address: 2405 N Courtenay Pkwy Suite 203
City: Merritt Island State: Florida Zip: 32953
Project Contact: Denise Rivers Email: drivers@hgl.com
Phone #: 910-233-8460
Sampler(s) Name(s) (Printed) Sampler 1: William Duttenhaver Sampler 2:

Project Information

Project Name: PRL 227A
Street
City: KSC State: Florida
Project #: NS1006.03.03
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	Sampled By:	Matrix	Total # of Bottles	Container Information: Other	None	HCl	NaOH	H2SO4	H2SO4	NaOH+ZnAc	DI Water	MeOH	V8260 BENZ	P8082 PCB
1	SAEE-TB-20221214-01	12/14	10.00	WD	WW	2			X						X		
2	SAEE-MW0001-010.0-20221214	12/14	11:32	WD	GW	5		X	X						X	X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

LAB USE ONLY

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT
LABEL VERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Date Time:
1	HGL	12/16/22 11:15	2	12/16/22 11:15
3			Relinquished By/Affiliation	12/16/22 14:35
4			Received By/Affiliation	12/16/22 14:35
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	
7	Relinquished By/Affiliation	Date Time:	Received By/Affiliation 8	

Lab Use Only: Cooler Temperature (s) Celsius (corrected): 1.4 CF

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

http://www.sgs.com/en/terms-and-conditions

FC1396: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: FC1396 **Client:** HGL, INC **Project:** PRL227A

Date / Time Received: 12/16/2022 2:35:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.4);

Cooler Temps (Corrected) °C: Cooler 1: (1.6);

Cooler Information	Y	N
1. Custody Seals Present	☑	☐
2. Custody Seals Intact	☑	☐
3. Temp criteria achieved	☑	☐
4. Cooler temp verification	IR Gun	
5. Cooler media	Ice (Bag)	

Trip Blank Information	Y	N	N/A
1. Trip Blank present / cooler	☑	☐	☐
2. Trip Blank listed on COC	☑	☐	☐

	W	S	N/A
3. Type Of TB Received	☑	☐	☐

Sample Information	Y	N	N/A
1. Sample labels present on bottles	☑	☐	
2. Samples preserved properly	☑	☐	
3. Sufficient volume/containers recvd for analysis:	☑	☐	
4. Condition of sample	Intact		
5. Sample recvd within HT	☑	☐	
6. Dates/Times/IDs on COC match Sample Label	☑	☐	
7. VOCs have headspace	☐	☑	☐
8. Bottles received for unspecified tests	☐	☑	
9. Compositing instructions clear	☐	☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐	☐	☑
11. % Solids Jar received?	☐	☐	☑
12. Residual Chlorine Present?	☐	☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 12/16/2022 2:35:00 P Reviewer: _____ Date: _____

Job Change Order: FC1396

Requested Date:	1/13/2023	**Received Date:**	12/16/2022
Account Name:	Hydrogeologic, Inc.	**Due Date:**	12/30/2022
Project Description:	TQN 118 NASA PRLs; KSC, FL	**Deliverable:**	COMMBN
CSR:	AH	**TAT (Days):**	7

==========

Sample #: FC1396-ALL

Dept:

TAT: 7

Change:
Report V8260STD

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FC1396: Chain of Custody
Page 3 of 3

Above Changes Per: Client **Date/Time:** 1/13/2023 12:10:30 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Hydrogeologic, Inc.

TQN 118 NASA PRLs; KSC, FL

NS1006.03.03

SGS Job Number: FC1490

Sampling Date: 12/19/22

Report to:

Hydrogeologic, Inc.

hfowler@hgl.com

ATTN: Howard F. Fowler

Total number of pages in report: 53

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

Norm Farmer
Technical Director

Client Service contact: Ariel Hartney 407-425-6700

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Sample Summary

Hydrogeologic, Inc.

Job No: FC1490

TQN 118 NASA PRLs; KSC, FL
Project No: NS1006.03.03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC1490-1	12/19/22	08:54	DLWD	12/20/22	SO	Soil	SAEE-SB0375-000.5-20221219
FC1490-2	12/19/22	08:56	DLWD	12/20/22	SO	Soil	SAEE-SB0375-001.0-20221219
FC1490-3	12/19/22	09:10	DLWD	12/20/22	SO	Soil	SAEE-SB0375-002.0-20221219
FC1490-4	12/19/22	09:13	DLWD	12/20/22	SO	Soil	SAEE-SB0375-003.0-20221219
FC1490-5	12/19/22	09:26	DLWD	12/20/22	SO	Soil	SAEE-SB0375-004.0-20221219
FC1490-6	12/19/22	09:35	DLWD	12/20/22	SO	Soil	SAEE-SB0376-000.5-20221219
FC1490-7	12/19/22	09:38	DLWD	12/20/22	SO	Soil	SAEE-SB0376-001.0-20221219
FC1490-8	12/19/22	09:40	DLWD	12/20/22	SO	Soil	SAEE-SB0376-002.0-20221219
FC1490-9	12/19/22	09:42	DLWD	12/20/22	SO	Soil	SAEE-SB0376-003.0-20221219
FC1490-10	12/19/22	09:44	DLWD	12/20/22	SO	Soil	SAEE-SB0376-004.0-20221219
FC1490-11	12/19/22	09:51	DLWD	12/20/22	SO	Soil	SAEE-SB0377-001.0-20221219
FC1490-12	12/19/22	09:53	DLWD	12/20/22	SO	Soil	SAEE-SB0377-002.0-20221219
FC1490-13	12/19/22	09:57	DLWD	12/20/22	SO	Soil	SAEE-SB0377-003.0-20221219

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FC1490

TQN 118 NASA PRLs; KSC, FL
Project No: NS1006.03.03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC1490-14	12/19/22	10:15	DLWD	12/20/22	SO	Soil	SAEE-SB0378-003.0-20221219
FC1490-15	12/19/22	10:17	DLWD	12/20/22	SO	Soil	SAEE-SB0378-004.0-20221219
FC1490-16	12/19/22	10:19	DLWD	12/20/22	SO	Soil	SAEE-SB0378-005.0-20221219
FC1490-17	12/19/22	10:23	DLWD	12/20/22	SO	Soil	SAEE-SB0378-006.0-20221219
FC1490-18	12/19/22	10:25	DLWD	12/20/22	SO	Soil	SAEE-SB0378-007.0-20221219
FC1490-19	12/19/22	10:48	DLWD	12/20/22	SO	Soil	SAEE-SB0379-003.0-20221219
FC1490-20	12/19/22	10:50	DLWD	12/20/22	SO	Soil	SAEE-SB0379-004.0-20221219
FC1490-21	12/19/22	10:52	DLWD	12/20/22	SO	Soil	SAEE-SB0379-005.0-20221219
FC1490-22	12/19/22	10:55	DLWD	12/20/22	SO	Soil	SAEE-SB0379-006.0-20221219
FC1490-23	12/19/22	10:57	DLWD	12/20/22	SO	Soil	SAEE-SB0379-007.0-20221219
FC1490-24	12/19/22	11:15	DLWD	12/20/22	SO	Soil	SAEE-SB0380-000.5-20221219
FC1490-25	12/19/22	11:18	DLWD	12/20/22	SO	Soil	SAEE-SB0380-001.0-20221219
FC1490-26	12/19/22	11:22	DLWD	12/20/22	SO	Soil	SAEE-SB0380-002.0-20221219

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

Hydrogeologic, Inc.

Job No: FC1490

TQN 118 NASA PRLs; KSC, FL
Project No: NS1006.03.03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC1490-27	12/19/22	11:25	DLWD	12/20/22	SO	Soil	SAEE-SB0380-003.0-20221219
FC1490-28	12/19/22	11:42	DLWD	12/20/22	SO	Soil	SAEE-SB0380-004.0-20221219
FC1490-29	12/19/22	11:48	DLWD	12/20/22	SO	Soil	SAEE-SB0380-005.0-20221219
FC1490-30	12/19/22	11:50	DLWD	12/20/22	SO	Soil	SAEE-SB0380-006.0-20221219
FC1490-31	12/19/22	11:54	DLWD	12/20/22	SO	Soil	SAEE-SB0380-007.0-20221219

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Hydrogeologic, Inc. **Job No:** FC1490

Site: TQN 118 NASA PRLs; KSC, FL **Report Date:** 1/9/2023 10:00:56 AM

On 12/20/2022, 31 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 3.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC1490 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** N:OP43869

FC1490-1: Analysis performed at SGS Dayton, NJ.
FC1490-5: Analysis performed at SGS Dayton, NJ.
FC1490-6: Analysis performed at SGS Dayton, NJ.
FC1490-7: Analysis performed at SGS Dayton, NJ.
FC1490-8: Analysis performed at SGS Dayton, NJ.
FC1490-10: Analysis performed at SGS Dayton, NJ.
FC1490-11: Analysis performed at SGS Dayton, NJ.
FC1490-14: Analysis performed at SGS Dayton, NJ.
FC1490-15: Analysis performed at SGS Dayton, NJ.
FC1490-16: Analysis performed at SGS Dayton, NJ.
FC1490-17: Analysis performed at SGS Dayton, NJ.
FC1490-19: Analysis performed at SGS Dayton, NJ.
FC1490-20: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP43957

FC1490-2: Analysis performed at SGS Dayton, NJ.
FC1490-4: Analysis performed at SGS Dayton, NJ.
FC1490-9: Analysis performed at SGS Dayton, NJ.
FC1490-13: Analysis performed at SGS Dayton, NJ.
FC1490-18: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:OP43959

FC1490-3: Analysis performed at SGS Dayton, NJ.
FC1490-12: Analysis performed at SGS Dayton, NJ.
FC1490-21: Analysis performed at SGS Dayton, NJ.
FC1490-22: Analysis performed at SGS Dayton, NJ.
FC1490-23: Analysis performed at SGS Dayton, NJ.
FC1490-24: Analysis performed at SGS Dayton, NJ.
FC1490-25: Analysis performed at SGS Dayton, NJ.
FC1490-26: Analysis performed at SGS Dayton, NJ.
FC1490-27: Analysis performed at SGS Dayton, NJ.
FC1490-28: Analysis performed at SGS Dayton, NJ.
FC1490-29: Analysis performed at SGS Dayton, NJ.
FC1490-30: Analysis performed at SGS Dayton, NJ.
FC1490-31: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN37057

FC1490-1 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-3 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-4 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-5 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-6 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** N:GN37057

FC1490-7 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-8 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-9 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-10 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-11 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-12 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-13 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-14 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-15 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-16 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-17 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-18 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-19 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-2 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-20 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

Matrix: SO **Batch ID:** N:GN37058

FC1490-21 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-22 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-23 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-24 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-25 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-26 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-27 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-28 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-29 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-30 for Solids, Percent: Analysis performed at SGS Dayton, NJ.
FC1490-31 for Solids, Percent: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FC1490
Site:	HGLFLMI: TQN 118 NASA PRLs; KSC, FL	**Report Date**	1/9/2023 8:24:37 AM

On 12/23/2022, 31 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of FC1490 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP43869

- All samples were extracted within the recommended method holding time.
- Sample(s) FC1490-1MS, FC1490-1MSD, OP43869-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** OP43957

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FC1490-2MS, FC1490-2MSD, OP43957-MSMSD were used as the QC samples indicated.
- Sample(s) FC1490-9 have surrogates outside control limits. Probable cause due to matrix interference.
- FC1490-9 for Tetrachloro-m-xylene: Outside of in house control limits.
- FC1490-9 for Decachlorobiphenyl: Outside of in house control limits.
- OP43957-BS1 for Decachlorobiphenyl: Outside of in house control limits.
- OP43957-MB1 for Decachlorobiphenyl: Outside of in house control limits.

Matrix: SO **Batch ID:** OP43959

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FC1490-3MS, FC1490-3MSD, OP43959-MSMSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Aroclor 1016, Aroclor 1260 are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Aroclor 1016 are outside control limits. Probable cause due to matrix interference.
- Sample(s) FC1490-21, FC1490-3 have surrogates outside control limits. Probable cause due to matrix interference.
- FC1490-3 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- FC1490-21 for Tetrachloro-m-xylene: Outside control limits due to matrix interference.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN37057

- Sample(s) FC1490-1DUP were used as the QC samples for Solids, Percent.

Matrix: SO **Batch ID:** GN37058

- Sample(s) JD57537-11DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: FC1490
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 12/19/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC1490-1	**SAEE-SB0375-000.5-20221219**					
Aroclor 1254 [a]		507	51	41	ug/kg	SW846 8082A
FC1490-2	**SAEE-SB0375-001.0-20221219**					
Aroclor 1254 [a]		1290	50	40	ug/kg	SW846 8082A
FC1490-3	**SAEE-SB0375-002.0-20221219**					
Aroclor 1254 [a]		8260	51	41	ug/kg	SW846 8082A
FC1490-4	**SAEE-SB0375-003.0-20221219**					
Aroclor 1254 [a]		3580	56	44	ug/kg	SW846 8082A
FC1490-5	**SAEE-SB0375-004.0-20221219**					
Aroclor 1254 [a]		452	54	43	ug/kg	SW846 8082A
FC1490-6	**SAEE-SB0376-000.5-20221219**					
Aroclor 1254 [a]		109	50	40	ug/kg	SW846 8082A
FC1490-7	**SAEE-SB0376-001.0-20221219**					
Aroclor 1254 [a]		67.8	51	41	ug/kg	SW846 8082A
FC1490-8	**SAEE-SB0376-002.0-20221219**					
No hits reported in this sample.						
FC1490-9	**SAEE-SB0376-003.0-20221219**					
No hits reported in this sample.						
FC1490-10	**SAEE-SB0376-004.0-20221219**					
No hits reported in this sample.						
FC1490-11	**SAEE-SB0377-001.0-20221219**					
Aroclor 1254 [a]		33.1 J	51	41	ug/kg	SW846 8082A

Summary of Hits

Job Number: FC1490
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 12/19/22

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC1490-12	**SAEE-SB0377-002.0-20221219**					
Aroclor 1254 [a]		39.3 J	55	44	ug/kg	SW846 8082A
FC1490-13	**SAEE-SB0377-003.0-20221219**					
No hits reported in this sample.						
FC1490-14	**SAEE-SB0378-003.0-20221219**					
Aroclor 1260 [a]		320	57	46	ug/kg	SW846 8082A
FC1490-15	**SAEE-SB0378-004.0-20221219**					
Aroclor 1260 [a]		51.6 J	54	43	ug/kg	SW846 8082A
FC1490-16	**SAEE-SB0378-005.0-20221219**					
Aroclor 1260 [a]		153	55	44	ug/kg	SW846 8082A
FC1490-17	**SAEE-SB0378-006.0-20221219**					
Aroclor 1260 [a]		266	56	45	ug/kg	SW846 8082A
FC1490-18	**SAEE-SB0378-007.0-20221219**					
Aroclor 1260 [a]		151	57	46	ug/kg	SW846 8082A
FC1490-19	**SAEE-SB0379-003.0-20221219**					
Aroclor 1260 [a]		101	49	39	ug/kg	SW846 8082A
FC1490-20	**SAEE-SB0379-004.0-20221219**					
Aroclor 1260 [a]		71.0	51	41	ug/kg	SW846 8082A
FC1490-21	**SAEE-SB0379-005.0-20221219**					
No hits reported in this sample.						
FC1490-22	**SAEE-SB0379-006.0-20221219**					
Aroclor 1260 [a]		124	56	45	ug/kg	SW846 8082A

Summary of Hits

Job Number: FC1490
Account: Hydrogeologic, Inc.
Project: TQN 118 NASA PRLs; KSC, FL
Collected: 12/19/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC1490-23	**SAEE-SB0379-007.0-20221219**					
Aroclor 1260 [a]		420	50	40	ug/kg	SW846 8082A
FC1490-24	**SAEE-SB0380-000.5-20221219**					
Aroclor 1254 [a]		84.5	50	40	ug/kg	SW846 8082A
Aroclor 1260 [a]		480	50	40	ug/kg	SW846 8082A
FC1490-25	**SAEE-SB0380-001.0-20221219**					
Aroclor 1254 [a]		33.1 J	52	42	ug/kg	SW846 8082A
Aroclor 1260 [a]		142	52	42	ug/kg	SW846 8082A
FC1490-26	**SAEE-SB0380-002.0-20221219**					
Aroclor 1260 [a]		177	51	41	ug/kg	SW846 8082A
FC1490-27	**SAEE-SB0380-003.0-20221219**					
Aroclor 1260 [a]		37.5 J	54	43	ug/kg	SW846 8082A
FC1490-28	**SAEE-SB0380-004.0-20221219**					
Aroclor 1260 [a]		40.2 J	55	44	ug/kg	SW846 8082A
FC1490-29	**SAEE-SB0380-005.0-20221219**					
No hits reported in this sample.						
FC1490-30	**SAEE-SB0380-006.0-20221219**					
No hits reported in this sample.						
FC1490-31	**SAEE-SB0380-007.0-20221219**					
No hits reported in this sample.						

(a) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SAEE-SB0375-000.5-20221219		
Lab Sample ID:	FC1490-1	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	94.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495142.D	1	12/30/22 20:13	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	507	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	118%		10-174%
877-09-8	Tetrachloro-m-xylene	118%		10-174%
2051-24-3	Decachlorobiphenyl	120%		10-195%
2051-24-3	Decachlorobiphenyl	149%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0375-001.0-20221219		
Lab Sample ID:	FC1490-2	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495349.D	1	01/05/23 15:16	ANJ	01/03/23 20:00	N:OP43957	N:GXX8027
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	44	ug/kg	
11097-69-1	Aroclor 1254	1290	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		10-174%
877-09-8	Tetrachloro-m-xylene	121%		10-174%
2051-24-3	Decachlorobiphenyl	102%		10-195%
2051-24-3	Decachlorobiphenyl	155%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0375-002.0-20221219		
Lab Sample ID:	FC1490-3	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495372.D	1	01/06/23 00:18	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	8260	51	41	27	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	141%		10-174%
877-09-8	Tetrachloro-m-xylene	163%		10-174%
2051-24-3	Decachlorobiphenyl	196% [b]		10-195%
2051-24-3	Decachlorobiphenyl	280% [b]		10-195%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0375-003.0-20221219		
Lab Sample ID:	FC1490-4	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495350.D	1	01/05/23 15:33	ANJ	01/03/23 20:00	N:OP43957	N:GXX8027
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	56	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	56	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	56	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	56	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	56	52	50	ug/kg	
11097-69-1	Aroclor 1254	3580	56	44	30	ug/kg	
11096-82-5	Aroclor 1260	44 U	56	44	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		10-174%
877-09-8	Tetrachloro-m-xylene	85%		10-174%
2051-24-3	Decachlorobiphenyl	62%		10-195%
2051-24-3	Decachlorobiphenyl	157%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0375-004.0-20221219		
Lab Sample ID:	FC1490-5	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	84.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495149.D	1	12/30/22 22:12	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	50 U	54	50	48	ug/kg	
11097-69-1	Aroclor 1254	452	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		10-174%
877-09-8	Tetrachloro-m-xylene	80%		10-174%
2051-24-3	Decachlorobiphenyl	84%		10-195%
2051-24-3	Decachlorobiphenyl	97%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0376-000.5-20221219		
Lab Sample ID:	FC1490-6	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	92.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495150.D	1	12/30/22 22:30	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	109	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		10-174%
877-09-8	Tetrachloro-m-xylene	97%		10-174%
2051-24-3	Decachlorobiphenyl	107%		10-195%
2051-24-3	Decachlorobiphenyl	128%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0376-001.0-20221219		
Lab Sample ID:	FC1490-7	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	91.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495151.D	1	12/30/22 22:47	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	67.8	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	17%		10-174%
877-09-8	Tetrachloro-m-xylene	17%		10-174%
2051-24-3	Decachlorobiphenyl	22%		10-195%
2051-24-3	Decachlorobiphenyl	23%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0376-002.0-20221219		
Lab Sample ID:	FC1490-8	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495152.D	1	12/30/22 23:04	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	44	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	39 U	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		10-174%
877-09-8	Tetrachloro-m-xylene	101%		10-174%
2051-24-3	Decachlorobiphenyl	101%		10-195%
2051-24-3	Decachlorobiphenyl	112%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0376-003.0-20221219		
Lab Sample ID:	FC1490-9	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495355.D	1	01/05/23 16:58	ANJ	01/03/23 20:00	N:OP43957	N:GXX8027
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	145%		10-174%
877-09-8	Tetrachloro-m-xylene	176% [b]		10-174%
2051-24-3	Decachlorobiphenyl	155%		10-195%
2051-24-3	Decachlorobiphenyl	203% [b]		10-195%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside of in house control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0376-004.0-20221219		
Lab Sample ID:	FC1490-10	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495154.D	1	12/30/22 23:38	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	51	40	24	ug/kg	
11104-28-2	Aroclor 1221	40 U	51	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	51	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	51	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	51	47	45	ug/kg	
11097-69-1	Aroclor 1254	40 U	51	40	27	ug/kg	
11096-82-5	Aroclor 1260	40 U	51	40	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		10-174%
877-09-8	Tetrachloro-m-xylene	64%		10-174%
2051-24-3	Decachlorobiphenyl	63%		10-195%
2051-24-3	Decachlorobiphenyl	68%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0377-001.0-20221219		
Lab Sample ID:	FC1490-11	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	93.8
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495155.D	1	12/30/22 23:55	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	10.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	31	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	32	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	45	ug/kg	
11097-69-1	Aroclor 1254	33.1	51	41	27	ug/kg	J
11096-82-5	Aroclor 1260	41 U	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	15%		10-174%
877-09-8	Tetrachloro-m-xylene	14%		10-174%
2051-24-3	Decachlorobiphenyl	16%		10-195%
2051-24-3	Decachlorobiphenyl	17%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0377-002.0-20221219		
Lab Sample ID:	FC1490-12	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495403.D	1	01/07/23 00:01	ANJ	01/04/23 17:00	N:OP43959	N:GXX8029
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	25	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	55	51	49	ug/kg	
11097-69-1	Aroclor 1254	39.3	55	44	29	ug/kg	J
11096-82-5	Aroclor 1260	44 U	55	44	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		10-174%
877-09-8	Tetrachloro-m-xylene	92%		10-174%
2051-24-3	Decachlorobiphenyl	79%		10-195%
2051-24-3	Decachlorobiphenyl	112%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0377-003.0-20221219		
Lab Sample ID:	FC1490-13	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495356.D	1	01/05/23 17:15	ANJ	01/03/23 20:00	N:OP43957	N:GXX8027
Run #2							

	Initial Weight	Final Volume
Run #1	10.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		10-174%
877-09-8	Tetrachloro-m-xylene	139%		10-174%
2051-24-3	Decachlorobiphenyl	122%		10-195%
2051-24-3	Decachlorobiphenyl	169%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0378-003.0-20221219		
Lab Sample ID:	FC1490-14	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495161.D	1	12/31/22 01:38	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	54 U	57	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	320	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		10-174%
877-09-8	Tetrachloro-m-xylene	133%		10-174%
2051-24-3	Decachlorobiphenyl	141%		10-195%
2051-24-3	Decachlorobiphenyl	164%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0378-004.0-20221219		
Lab Sample ID:	FC1490-15	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495162.D	1	12/31/22 01:55	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	51.6	54	43	23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54%		10-174%
877-09-8	Tetrachloro-m-xylene	59%		10-174%
2051-24-3	Decachlorobiphenyl	72%		10-195%
2051-24-3	Decachlorobiphenyl	83%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0378-005.0-20221219		
Lab Sample ID:	FC1490-16	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	78.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495163.D	1	12/31/22 02:12	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	30	ug/kg	
11096-82-5	Aroclor 1260	153	55	44	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		10-174%
877-09-8	Tetrachloro-m-xylene	125%		10-174%
2051-24-3	Decachlorobiphenyl	129%		10-195%
2051-24-3	Decachlorobiphenyl	151%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0378-006.0-20221219		
Lab Sample ID:	FC1490-17	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495164.D	1	12/31/22 02:29	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	266	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	147%		10-174%
877-09-8	Tetrachloro-m-xylene	163%		10-174%
2051-24-3	Decachlorobiphenyl	138%		10-195%
2051-24-3	Decachlorobiphenyl	174%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0378-007.0-20221219		
Lab Sample ID:	FC1490-18	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	77.1
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495357.D	1	01/05/23 17:32	ANJ	01/03/23 20:00	N:OP43957	N:GXX8027
Run #2							

	Initial Weight	Final Volume
Run #1	11.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	57	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	57	46	35	ug/kg	
11141-16-5	Aroclor 1232	46 U	57	46	36	ug/kg	
53469-21-9	Aroclor 1242	46 U	57	46	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	57	53	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	57	46	31	ug/kg	
11096-82-5	Aroclor 1260	151	57	46	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		10-174%
877-09-8	Tetrachloro-m-xylene	128%		10-174%
2051-24-3	Decachlorobiphenyl	112%		10-195%
2051-24-3	Decachlorobiphenyl	156%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0379-003.0-20221219		
Lab Sample ID:	FC1490-19	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	89.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495166.D	1	12/31/22 03:03	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	39 U	49	39	23	ug/kg	
11104-28-2	Aroclor 1221	39 U	49	39	30	ug/kg	
11141-16-5	Aroclor 1232	39 U	49	39	31	ug/kg	
53469-21-9	Aroclor 1242	39 U	49	39	20	ug/kg	
12672-29-6	Aroclor 1248	46 U	49	46	43	ug/kg	
11097-69-1	Aroclor 1254	39 U	49	39	26	ug/kg	
11096-82-5	Aroclor 1260	101	49	39	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		10-174%
877-09-8	Tetrachloro-m-xylene	100%		10-174%
2051-24-3	Decachlorobiphenyl	92%		10-195%
2051-24-3	Decachlorobiphenyl	114%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0379-004.0-20221219		
Lab Sample ID:	FC1490-20	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.0
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495175.D	1	12/31/22 05:37	ANJ	12/29/22 13:30	N:OP43869	N:GXX8022
Run #2							

	Initial Weight	Final Volume
Run #1	11.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	71.0	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	112%		10-174%
877-09-8	Tetrachloro-m-xylene	121%		10-174%
2051-24-3	Decachlorobiphenyl	115%		10-195%
2051-24-3	Decachlorobiphenyl	137%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0379-005.0-20221219		
Lab Sample ID:	FC1490-21	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495374.D	1	01/06/23 00:52	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	56	52	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	45 U	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	312% [b]		10-174%
877-09-8	Tetrachloro-m-xylene	507% [b]		10-174%
2051-24-3	Decachlorobiphenyl	68%		10-195%
2051-24-3	Decachlorobiphenyl	102%		10-195%

(a) Analysis performed at SGS Dayton, NJ.
(b) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0379-006.0-20221219		
Lab Sample ID:	FC1490-22	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495379.D	1	01/06/23 02:17	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	45 U	56	45	26	ug/kg	
11104-28-2	Aroclor 1221	45 U	56	45	35	ug/kg	
11141-16-5	Aroclor 1232	45 U	56	45	36	ug/kg	
53469-21-9	Aroclor 1242	45 U	56	45	23	ug/kg	
12672-29-6	Aroclor 1248	53 U	56	53	50	ug/kg	
11097-69-1	Aroclor 1254	45 U	56	45	30	ug/kg	
11096-82-5	Aroclor 1260	124	56	45	24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		10-174%
877-09-8	Tetrachloro-m-xylene	121%		10-174%
2051-24-3	Decachlorobiphenyl	110%		10-195%
2051-24-3	Decachlorobiphenyl	150%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0379-007.0-20221219		
Lab Sample ID:	FC1490-23	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	88.4
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495380.D	1	01/06/23 02:34	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	11.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	21	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	40 U	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	420	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		10-174%
877-09-8	Tetrachloro-m-xylene	115%		10-174%
2051-24-3	Decachlorobiphenyl	101%		10-195%
2051-24-3	Decachlorobiphenyl	138%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-000.5-20221219		
Lab Sample ID:	FC1490-24	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.2
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495381.D	1	01/06/23 02:52	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	11.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	40 U	50	40	23	ug/kg	
11104-28-2	Aroclor 1221	40 U	50	40	31	ug/kg	
11141-16-5	Aroclor 1232	40 U	50	40	32	ug/kg	
53469-21-9	Aroclor 1242	40 U	50	40	20	ug/kg	
12672-29-6	Aroclor 1248	47 U	50	47	45	ug/kg	
11097-69-1	Aroclor 1254	84.5	50	40	27	ug/kg	
11096-82-5	Aroclor 1260	480	50	40	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	57%		10-174%
877-09-8	Tetrachloro-m-xylene	71%		10-174%
2051-24-3	Decachlorobiphenyl	94%		10-195%
2051-24-3	Decachlorobiphenyl	143%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-001.0-20221219		
Lab Sample ID:	FC1490-25	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	90.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495382.D	1	01/06/23 03:09	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	42 U	52	42	24	ug/kg	
11104-28-2	Aroclor 1221	42 U	52	42	32	ug/kg	
11141-16-5	Aroclor 1232	42 U	52	42	33	ug/kg	
53469-21-9	Aroclor 1242	42 U	52	42	21	ug/kg	
12672-29-6	Aroclor 1248	49 U	52	49	46	ug/kg	
11097-69-1	Aroclor 1254	33.1	52	42	28	ug/kg	J
11096-82-5	Aroclor 1260	142	52	42	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		10-174%
877-09-8	Tetrachloro-m-xylene	141%		10-174%
2051-24-3	Decachlorobiphenyl	135%		10-195%
2051-24-3	Decachlorobiphenyl	175%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-002.0-20221219		
Lab Sample ID:	FC1490-26	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	86.7
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495383.D	1	01/06/23 03:26	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	41 U	51	41	24	ug/kg	
11104-28-2	Aroclor 1221	41 U	51	41	32	ug/kg	
11141-16-5	Aroclor 1232	41 U	51	41	33	ug/kg	
53469-21-9	Aroclor 1242	41 U	51	41	21	ug/kg	
12672-29-6	Aroclor 1248	48 U	51	48	46	ug/kg	
11097-69-1	Aroclor 1254	41 U	51	41	28	ug/kg	
11096-82-5	Aroclor 1260	177	51	41	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		10-174%
877-09-8	Tetrachloro-m-xylene	117%		10-174%
2051-24-3	Decachlorobiphenyl	110%		10-195%
2051-24-3	Decachlorobiphenyl	145%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-003.0-20221219		
Lab Sample ID:	FC1490-27	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	79.9
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495384.D	1	01/06/23 03:43	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	11.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	33	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	34	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	37.5	54	43	23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		10-174%
877-09-8	Tetrachloro-m-xylene	115%		10-174%
2051-24-3	Decachlorobiphenyl	93%		10-195%
2051-24-3	Decachlorobiphenyl	124%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-004.0-20221219		
Lab Sample ID:	FC1490-28	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	80.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495385.D	1	01/06/23 04:54	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	11.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	44 U	55	44	26	ug/kg	
11104-28-2	Aroclor 1221	44 U	55	44	34	ug/kg	
11141-16-5	Aroclor 1232	44 U	55	44	35	ug/kg	
53469-21-9	Aroclor 1242	44 U	55	44	23	ug/kg	
12672-29-6	Aroclor 1248	52 U	55	52	49	ug/kg	
11097-69-1	Aroclor 1254	44 U	55	44	30	ug/kg	
11096-82-5	Aroclor 1260	40.2	55	44	24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		10-174%
877-09-8	Tetrachloro-m-xylene	112%		10-174%
2051-24-3	Decachlorobiphenyl	101%		10-195%
2051-24-3	Decachlorobiphenyl	138%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-005.0-20221219		
Lab Sample ID:	FC1490-29	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	83.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495390.D	1	01/06/23 06:18	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	46 U	58	46	27	ug/kg	
11104-28-2	Aroclor 1221	46 U	58	46	36	ug/kg	
11141-16-5	Aroclor 1232	46 U	58	46	37	ug/kg	
53469-21-9	Aroclor 1242	46 U	58	46	24	ug/kg	
12672-29-6	Aroclor 1248	54 U	58	54	51	ug/kg	
11097-69-1	Aroclor 1254	46 U	58	46	31	ug/kg	
11096-82-5	Aroclor 1260	46 U	58	46	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		10-174%
877-09-8	Tetrachloro-m-xylene	123%		10-174%
2051-24-3	Decachlorobiphenyl	110%		10-195%
2051-24-3	Decachlorobiphenyl	155%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-006.0-20221219		
Lab Sample ID:	FC1490-30	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	82.5
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495391.D	1	01/06/23 06:35	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	48 U	61	48	28	ug/kg	
11104-28-2	Aroclor 1221	48 U	61	48	38	ug/kg	
11141-16-5	Aroclor 1232	48 U	61	48	39	ug/kg	
53469-21-9	Aroclor 1242	48 U	61	48	25	ug/kg	
12672-29-6	Aroclor 1248	57 U	61	57	54	ug/kg	
11097-69-1	Aroclor 1254	48 U	61	48	33	ug/kg	
11096-82-5	Aroclor 1260	48 U	61	48	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	121%		10-174%
877-09-8	Tetrachloro-m-xylene	146%		10-174%
2051-24-3	Decachlorobiphenyl	123%		10-195%
2051-24-3	Decachlorobiphenyl	168%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SAEE-SB0380-007.0-20221219		
Lab Sample ID:	FC1490-31	**Date Sampled:**	12/19/22
Matrix:	SO - Soil	**Date Received:**	12/20/22
Method:	SW846 8082A SW846 3540C	**Percent Solids:**	85.6
Project:	TQN 118 NASA PRLs; KSC, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XX2495392.D	1	01/06/23 06:52	ANJ	01/04/23 17:00	N:OP43959	N:GXX8028
Run #2							

	Initial Weight	Final Volume
Run #1	10.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	43 U	54	43	25	ug/kg	
11104-28-2	Aroclor 1221	43 U	54	43	34	ug/kg	
11141-16-5	Aroclor 1232	43 U	54	43	35	ug/kg	
53469-21-9	Aroclor 1242	43 U	54	43	22	ug/kg	
12672-29-6	Aroclor 1248	51 U	54	51	48	ug/kg	
11097-69-1	Aroclor 1254	43 U	54	43	29	ug/kg	
11096-82-5	Aroclor 1260	43 U	54	43	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		10-174%
877-09-8	Tetrachloro-m-xylene	130%		10-174%
2051-24-3	Decachlorobiphenyl	109%		10-195%
2051-24-3	Decachlorobiphenyl	145%		10-195%

(a) Analysis performed at SGS Dayton, NJ.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Chain of Custody (SGS Dayton, NJ)

FC1490

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information		Project Information	
Company Name: HGL, Inc.		Project Name:	PRL 227, LOC 3 Confirmatory Sampling
Address: 2405 N. Courtney Parkway, STE 203		Street	Kennedy Space Center
City: Merrit Island	State: FL Zip:32937	City	Merrit Island State FL
Project Contact: Denise Rivers	Email:drivers@hgl.com	Project #	NS1006.03.03
Phone #:910-233-8460		Fax #	
Sampler(s) Name(s) (Printed) Sampler 1: Dustin Lupis	Sampler 2: William Duttenhaver	Client Purchase Order #	

Analytical Informatio

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL-104	LAB USE ONLY
1	SAEE-SB0375-000.5-20221219	12/19/22	0854	DL	SO	1		x								x	
2	SAEE-SB0375-001.0-20221219	12/19/22	0856	DL	SO	1		x								x	
3	SAEE-SB0375-002.0-20221219	12/19/22	0910	DL	SO	1		x								x	
4	SAEE-SB0375-003.0-20221219	12/19/22	0913	DL	SO	1		x								x	
5	SAEE-SB0375-004.0-20221219	12/19/22	0926	DL	SO	2		x								x	
6	SAEE-SB0376-000.5-20221219	12/19/22	0935	DL	SO	3		x								x	
7	SAEE-SB0376-001.0-20221219	12/19/22	0938	DL	SO	4		x								x	
8	SAEE-SB0376-002.0-20221219	12/19/22	0940	DL	SO	5		x								x	
9	SAEE-SB0376-003.0-20221219	12/19/22	0942	DL	SO	6		x								x	
10	SAEE-SB0376-004.0-20221219	12/19/22	0944	DL	SO	7		x								x	
11	SAEE-SB0377-001.0-20221219	12/19/22	0951	DL	SO	8		x								x	
12	SAEE-SB0377-002.0-20221219	12/19/22	0953	DL	SO	9		x								x	

Turnaround Time (Business days)

X 10 Day (Business) — Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT SM

LABEL VERIFICATION SM

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1			2 12/20/22 1500	3 12/20/22 16:16		4 12/21/22 1640
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.4 CSM

http://www.sgs.com/en/terms-and-conditions

COC PRL-227_20221219 Rev 031318

FC1490: Chain of Custody
Page 1 of 4

FC1490

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Chain of Custody

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SGS - ORLANDO JOB # : PAGE 2 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information | **Project Information** | **Analytical Informatio** | **Matrix Codes**

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Dustin Lupis Sampler 2: William Duttenhaver

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1006.03.03
Fax #
Client Purchase Order #

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NACH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL-104	LAB USE ONLY
13	SAEE-SB0377-003.0-20221219	12/19/22	0957	DL	SO	1		x								x	
14	SAEE-SB0378-003.0-20221219	12/19/22	1015	DL	SO	1		x								x	
15	SAEE-SB0378-004.0-20221219	12/19/22	1017	DL	SO	1		x								x	
16	SAEE-SB0378-005.0-20221219	12/19/22	1019	DL	SO	1		x								x	
17	SAEE-SB0378-006.0-20221219	12/19/22	1023	DL	SO	1		x								x	
18	SAEE-SB0378-007.0-20221219	12/19/22	1025	DL	SO	1		x								x	
19	SAEE-SB0379-003.0-20221219	12/19/22	1048	DL	SO	1		x								x	
20	SAEE-SB0379-004.0-20221219	12/19/22	1050	DL	SO	1		x								x	
21	SAEE-SB0379-005.0-20221219	12/19/22	1052	DL	SO	1		x								x	
22	SAEE-SB0379-006.0-20221219	12/19/22	1055	DL	SO	1		x								x	
23	SAEE-SB0379-007.0-20221219	12/19/22	1057	DL	SO	1		x								x	
24	SAEE-SB0380-000.5-20221219	12/19/22	1115	DL	SO	1		x								x	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1			2 12/20/22 15:04	3 12/20/22	16:40	4 12/20/22 1640
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
	5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227_20221219 Rev 031318

FC1490

SGS North America Inc - Orlando

Chain of Custody

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TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 3 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Dustin Lupis Sampler 2: William Duttenhaver

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1006.03.03
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
25	SAEE-SB0380-001.0-20221219	12/19/22	1118	DL	SO	1		x								x	
26	SAEE-SB0380-002.0-20221219	12/19/22	1122	DL	SO	1		x								x	
27	SAEE-SB0380-003.0-20221219	12/19/22	1125	DL	SO	1		x								x	
28	SAEE-SB0380-004.0-20221219	12/19/22	1142	DL	SO	1		x								x	
29	SAEE-SB0380-005 0-20221219	12/19/22	1148	DL	SO	1		x								x	
30	SAEE-SB0380-006.0-20221219	12/19/22	1150	DL	SO	1		x								x	
31	SAEE-SB0380-007.0-20221219	12/19/22	1154	DL	SO	1		x								x	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1			2 12/20/2022 1500	3 12/20/22	1640	4 12/20/22 1640
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5			6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

COC PRL-227_20221219 Rev 031318

FC1490: Chain of Custody
Page 3 of 4

SGS Sample Receipt Summary

Job Number: FC1490 **Client:** HGL **Project:** PRL 227, LOC 3 CONFIRMATORY SAMPLING

Date / Time Received: 12/20/2022 4:40:00 PM **Delivery Method:** COURIER **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.4);

Cooler Temps (Corrected) °C: Cooler 1: (3.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 12/20/2022 4:40:00 P Reviewer: _____ Date: _____

FC1490: Chain of Custody
Page 4 of 4

FC1490-1-31
Bot # 1
WI2-32
SO

SGS CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking # 612466047678 | Bottle Order Control # | SGS Quote # | SGS Job # FC1490

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: ariel.hartney@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): DLWD Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: NONE	PB082SOXHLETPCB SOL104	LAB USE ONLY
1	SAEE-SB0375-000.5-20221219		12/19/22	8:54:00 AM	DLWD	SO		1	X	
2	SAEE-SB0375-001.0-20221219		12/19/22	8:56:00 AM	DLWD	SO		1	X	E29TL
3	SAEE-SB0375-002.0-20221219		12/19/22	9:10:00 AM	DLWD	SO		1	X	
4	SAEE-SB0375-003.0-20221219		12/19/22	9:13:00 AM	DLWD	SO		1	X	
5	SAEE-SB0375-004.0-20221219		12/19/22	9:26:00 AM	DLWD	SO		1	X	
6	SAEE-SB0376-000.5-20221219		12/19/22	9:35:00 AM	DLWD	SO		1	X	
7	SAEE-SB0376-001.0-20221219		12/19/22	9:38:00 AM	DLWD	SO		1	X	
8	SAEE-SB0376-002.0-20221219		12/19/22	9:40:00 AM	DLWD	SO		1	X	
9	SAEE-SB0376-003.0-20221219		12/19/22	9:42:00 AM	DLWD	SO		1	X	
10	SAEE-SB0376-004.0-20221219		12/19/22	9:44:00 AM	DLWD	SO		1	X	
11	SAEE-SB0377-001.0-20221219		12/19/22	9:51:00 AM	DLWD	SO		1	X	
12	SAEE-SB0377-002.0-20221219		12/19/22	9:53:00 AM	DLWD	SO		1	X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 1/5/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [X] Other Narrative

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Send to SGS Dayton NJ page 1/3

Initial Assessment AJA
Label Verification

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

1 Relinquished by Sampler:	Date Time: 12/22/22	Received By: 1	2 Relinquished By:	Date Time: 12/23/22 18:00	Received By: 2
3 Relinquished by Sampler:	Date Time:	Received By: 3	4 Relinquished By:	Date Time:	Received By: 4
5 Relinquished by:	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID: ☐ On Ice Cooler Temp: 2.6

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FC1490

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: SGS North America Inc.	Project Name: TQN 118 NASA PRLs; KSC, FL		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 4405 Vineland Rd, Suite C-15	Street:		
City: Orlando State: FL Zip: 32811	City: State:	Billing Information (if different from Report to) Company Name:	
Project Contact: ariel.hartney@sgs.com E-mail:	Project #:	Street Address:	
Phone #: 407-425-6700 Fax #:	Client Purchase Order #:	City: State: Zip:	
Sampler(s) Name(s): DLWD Phone:	Project Manager:	Attention:	

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: NONE	P802SOXHLETPCB_SOL-104	LAB USE ONLY
13	SAEE-SB0377-003.0-20221219		12/19/22	9:57:00 AM	DLWD	SO		1	X	
14	SAEE-SB0378-003.0-20221219		12/19/22	10:15:00 AM	DLWD	SO		1	X	
15	SAEE-SB0378-004.0-20221219		12/19/22	10:17:00 AM	DLWD	SO		1	X	
16	SAEE-SB0378-005.0-20221219		12/19/22	10:19:00 AM	DLWD	SO		1	X	
17	SAEE-SB0378-006.0-20221219		12/19/22	10:23:00 AM	DLWD	SO		1	X	
18	SAEE-SB0378-007.0-20221219		12/19/22	10:25:00 AM	DLWD	SO		1	X	
19	SAEE-SB0379-003.0-20221219		12/19/22	10:48:00 AM	DLWD	SO		1	X	
20	SAEE-SB0379-004.0-20221219		12/19/22	10:50:00 AM	DLWD	SO		1	X	
21	SAEE-SB0379-005.0-20221219		12/19/22	10:52:00 AM	DLWD	SO		1	X	
22	SAEE-SB0379-006.0-20221219		12/19/22	10:55:00 AM	DLWD	SO		1	X	
23	SAEE-SB0379-007.0-20221219		12/19/22	10:57:00 AM	DLWD	SO		1	X	
24	SAEE-SB0380-000.5-20221219		12/19/22	11:15:00 AM	DLWD	SO		1	X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 1/5/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [X] Other Narrative

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Send to SGS Dayton NJ page 2/3

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		12/21/22 1810	Foley	Foley	12/23/22	
2						
3	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal # / Intact / Not intact	Preserved where applicable / Therm. ID:	On Ice / Cooler Temp.

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: FC1490

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: ariel.hartney@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): DLWD Phone:

Project Information

Project Name: TQN 118 NASA PRLs; KSC, FL
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: NONE	PB082SOXHLETPCB_SOL104	LAB USE ONLY
25	SAEE-SB0380-001.0-20221219		12/19/22	11:18:00 AM	DLWD	SO		1	X	
26	SAEE-SB0380-002.0-20221219		12/19/22	11:22:00 AM	DLWD	SO		1	X	
27	SAEE-SB0380-003.0-20221219		12/19/22	11:25:00 AM	DLWD	SO		1	X	
28	SAEE-SB0380-004.0-20221219		12/19/22	11:42:00 AM	DLWD	SO		1	X	
29	SAEE-SB0380-005.0-20221219		12/19/22	11:48:00 AM	DLWD	SO		1	X	
30	SAEE-SB0380-006.0-20221219		12/19/22	11:50:00 AM	DLWD	SO		1	X	
31	SAEE-SB0380-007.0-20221219		12/19/22	11:54:00 AM	DLWD	SO		1	X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 1/5/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] Stata Forms
- [ ] EDD Format
- [X] Other Narrative

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Send to SGS Dayton NJ Page 3/3

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		12/22 1200	Feeler	Feeler	12/23/22 18:05	
2						
3						
4						
5						

Custody Seal #: [ ] Intact [ ] Not intact
Preserved where applicable [ ] Therm. ID:
On Ice [ ]
Cooler Temp.

FC1490: Chain of Custody
Page 3 of 4

SGS Sample Receipt Summary

Job Number: FC1490 **Client:** _____ **Project:** _____

Date / Time Received: 12/23/2022 6:00:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

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

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

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

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

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

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

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APPENDIX D

FIELD FORMS

Daily Quality Control Report

HGL HydroGeoLogic, Inc Exceeding Expectations	**Daily Quality Control Report**		**Day**	**S**	**M**	**T**	**W**	**TH**	**F**	**S**
Date:	**11/10/2020**					**X**				
NASA Remediation Project Manager:	Deda Johansen		Weather	Bright Sun		Clear	Overcast		Rain	Fog
HGL Program Manager	Janardan Patel						X		X	
HGL Project Manager:	Howard Fowler		Temp	Min.			Max.			
Contract No.	80KSC019D0012			76			82			
Task Order No.	80KSC019F0096		Wind	Still	Moderate		High		Gust	
Project Name:	PRL 227 LOC 3				X					
Project No.	NS1005.07.05		Humidity	Dry	Moderate		High		Rainfall	
							X		X	

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Robert Lynch	Field Scientist	LOC 3	1	0	1
William (Parker) Duttenhaver	Field Technician	LOC 3	1	0	1
Dustin Lupis	Field Technician	LOC 3	1	0	1
Barry Huston	Field Technician	LOC 3	1	0	1
TOTAL HGL PERSONNEL ONSITE		**4**	**TOTAL HOURS WORKED**		**4**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
Jeff McDowell	KSC Utility Locator	LOC 3	0.5
TOTAL GOV PERSONNEL ONSITE		**1**	**0.5**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling	**S = Start**	Collected 3 soil samples from one location

Daily Quality Control Report

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0012	P8082 SOXHLET PCB, SOL104	Pending

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

COVID-19, inclement weather, pinch points, slips, trips and falls.

6. Description of Work Completed

0800 - All personnel onsite. Conducted TGSM

0805 - Called KSC Work Control Center to verify dig status. No-dig for Category B sites. LOC 3 is Category A, clear to proceed

0810 - Jeff marked utilities and cleared area containing proposed step-out locations

0812 - Collected SAEE-SB0012-000.5 (0.0'-0.5')

0815 - Collected SAEE-SB0012-001.0 (0.5'-1.0')

0817 - Collected SAEE-SB0012-002.0 (1.0'-2.0). Note - Did not hit water table at 2.0'

Note - Different buckets, mixing bowls, and spoons were used for each sample. All equipment was decontaminated following sample collection. SGS provided 4-oz plastic sampling containers for PCBs analysis. Per discussions with senior chemists – 8 ounce jars were filled for each sample collected. Soil was dark grey, sandy, with some aggregates.

0845 - All personnel offsite

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Robert Lynch	**11/10/2020**
Signature:	**11/10/2020**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett	**11/10/2020**
Signature:	**11/10/2020**

HGL
HydroGeoLogic, Inc
Exceeding Expectations

SAFETY MEETING/TRAINING LOG

- [x] Tailgate (daily)
- [ ] Activity Hazard Analysis
- [ ] Pre-Task Hazard Analysis (prior to new task or operation)
- [ ] Site Safety Orientation (new personnel)
- [ ] Supervisor's (monthly)
- [ ] Supervisor's (weekly)
- [ ] UXO Awareness
- [ ] Asbestos Awareness
- [ ] Health and Safety Plan Addendum: _____
- [ ] Other: ___

Date/Time: 11/10/2020 Client: NASA-KSC

Location: PRL 227 LOC 3 Job No.: NS1005.07.05

Meeting/training conducted by: Robert Lynch

Work Activities: Soil sampling

Safety / Training Topics Presented

Chemical Hazards: PCBs

Physical Hazards: Inclement weather, pinch points, slips, trips, and falls

Specific Safety Topic(s): COVID-19, Phase I/II Warnings

Specific Training Covered:

Attendees

Name Printed and Employee Number:	Signature:
BARRY HOSTOM HGL	
William Duttenhaver HGL	
Robert Lynch HGL	
Dustin Lupis	

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : **PAGE___1___OF___1____**

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.

Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State: FL** **Zip:32937**

Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Robert Lynch **Sampler 2:**

Project Information

Project Name: **PRL 227 LOC 3**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.07.05**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB, SOL104										LAB USE ONLY
	SAEE-SB0012-000.5-20201110	11/10/20	0812	RL	SO	1										X										
	SAEE-SB0012-001.0-20201110	11/10/20	0815	RL	SO	1										X										
	SAEE-SB0012-002.0-20201110	11/10/20	0817	RL	SO	1										X										

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation 1	**Date Time:**	**Received By/Affiliation** 2	**Relinquished By/Affiliation** 3	**Date Time:**	**Received By/Affiliation** 4
Relinquished by/Affiliation 5	**Date Time:**	**Received By/Affiliation** 6	**Relinquished By/Affiliation** 7	**Date Time:**	**Received By/Affiliation** 8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

Location PRL 227 LOC 3 Date 11-10-20

Project / Client NASA - KSC

NS1005.07.05

PURPOSE: Collect soil samples for PCBs analysis

PERSONNEL: Rob Z., Barry H., Dustin Z., Parker D., Jeff (KSC Utilities)

EQUIPMENT: Hand auger, buckets, mixing bowls, spoons, deron, sampling jars and cooler

WEATHER: HI - 82° LO - 76° OFF/ON RAIN 90% Humidity 40% Precip

0800 - All personnel onsite. Conducted TGSM.

0805 - Called KSC work control center to verify dig status. NO DIG for Category B. LOC 3 is Category A - Clear to proceed.

0810 - Jeff marked utility lines to clear proposed step-out locations

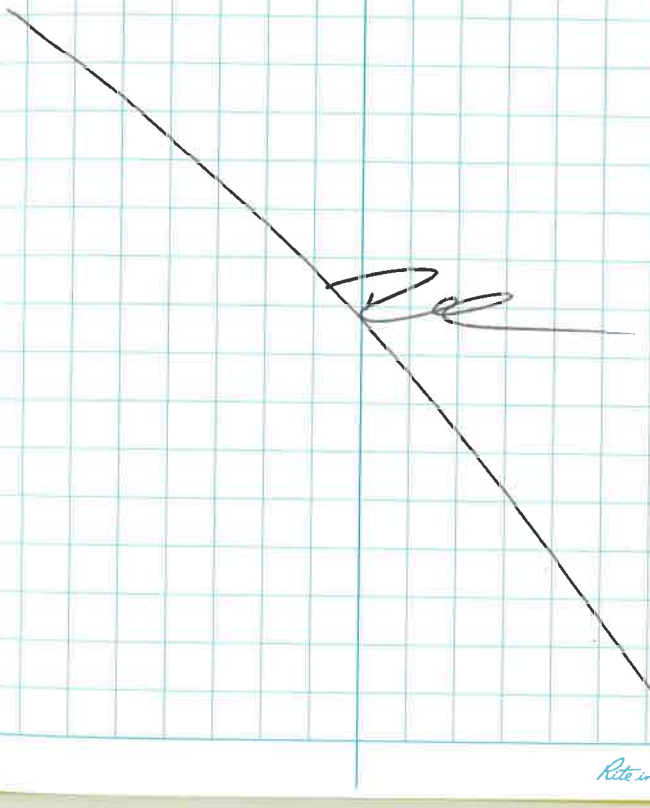
0812 - Collected SAEE-SB0012-000.5 with hand auger (0'-0.5')

0815 - Collected SAEE-SB0012-001.0 (0.5'-1.0')

0817 - Collected SAEE-SB0012-002.0 (1.0'-2.0')

NOTE - used different buckets, bowls,

NOTE CONT. - and spoons for each sample. All equipment was decontaminated after sample collection.
SGS provided 4-oz plastic jars for PCBs analysis, we collected samples in 8-oz glass jars instead.
0845 - All personnel offsite



Location PRL 227 Loc 3 Date 11-10-20

Project / Client NASA - KSC

NS1005.07.05

NOTES CONT - Due to inclement weather (off and on rain), was unable to capture photos of soil in mixing bowl. All soil (for all samples, appeared dark grey, sandy, with some aggregates.
- Did not hit water table at 2'.

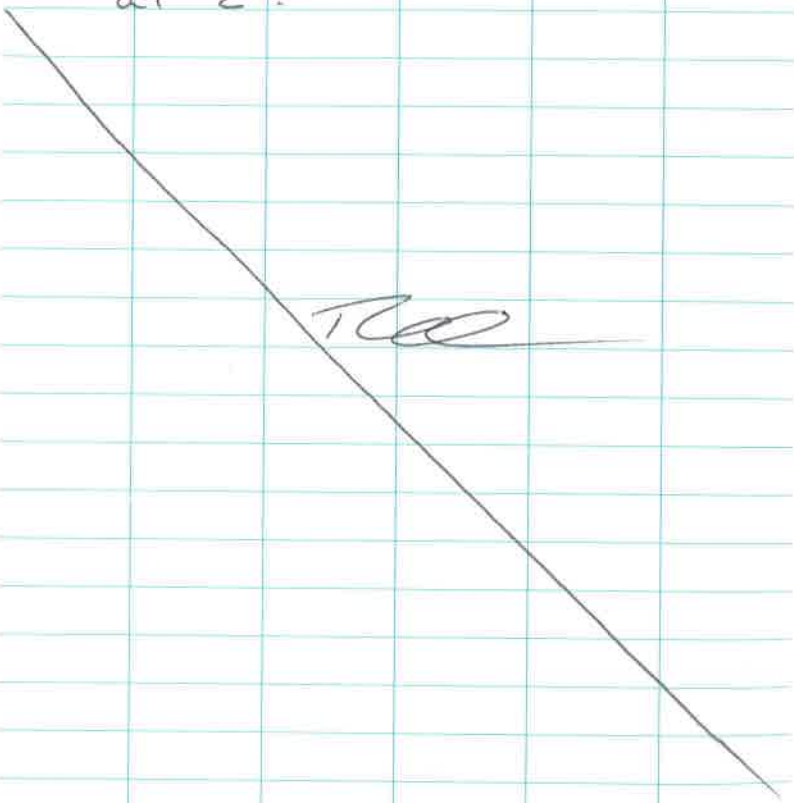


Image of SB0012 post-sampling.

Image of sample SAEE-SB0012-000.5-20201110.

Image of sample SAEE-SB0012-001.0-20201110.

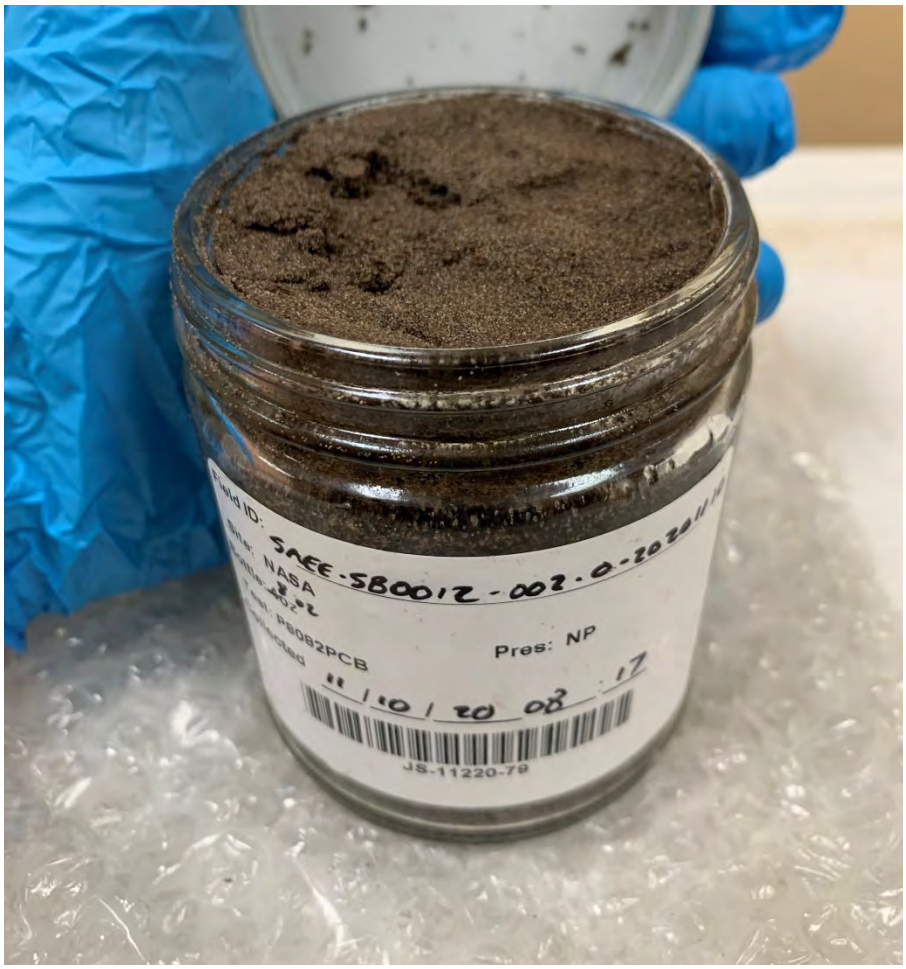


Image of SAEE-SB0012-002.0-20201110.

Daily Quality Control Report

HGL HydroGeoLogic, Inc. Exceeding Expectations	Daily Quality Control Report
Date:	**5/12/2021**
NASA Remediation Project Manager	Deda Johansen
HGL Program Manager:	Richard Smith
HGL Project Manager:	Richard Smith
Prime Contract No.	80KSC019D0012
Project Name:	PRL-227, LOC 3 SAEE
Project No.	NS1005.07.05

Day	S	M	T	W	TH	F	S
				X			

Weather	Bright Sun	Clear	Overcast	Rain	Fog
		X			

Temp	Min.	Max.
	75	87

Wind	Still	Moderate	High	Gust
		X		

Humidity	Dry	Moderate	High	Rainfall
		X		

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Howard Fowler	Senior Scientist	PRL227LOC3	7		7
Jason Bublitz	Scientist	PRL227LOC3	7		7
Robert Lynch	Scientist	PRL227LOC3	7		7
Tim Jellett	Senior Scientist	PRL227LOC3	7		7
TOTAL HGL PERSONNEL ONSITE		**4**	**TOTAL HOURS WORKED**		**28**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
TOTAL GOV PERSONNEL ONSITE	**0**		**0**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE	**0**	**TOTAL HOURS WORKED**			**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used
Hand auger, bowls and spoons	05/12/21	No			7

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling		
Soil Sampling	F	Collected 67 soil samples from 18 boring locations.

Daily Quality Control Report

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0321-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0321-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0321-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0322-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0322-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0322-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0323-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0323-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0323-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0324-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0324-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0324-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0325-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0325-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0325-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0326-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0326-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0326-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0327-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0327-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0327-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0327-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0328-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0328-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0328-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0328-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0329-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0329-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0329-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0329-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0330-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0330-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0330-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0330-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0331-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0331-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0331-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0331-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0332-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0332-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0332-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0332-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0333-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0333-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0333-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0333-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0334-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0334-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0334-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0334-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0335-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0335-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0335-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0335-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0336-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0336-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0336-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0336-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0337-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0337-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0337-002.0-20210512	8082 SOXHLET	Pending

Daily Quality Control Report

SAEE-SB0337-003.0-20210512	8082 SOXHLET	Pending
SAEE-SB0337-004.0-20210512	8082 SOXHLET	Pending
SAEE-SB0338-000.5-20210512	8082 SOXHLET	Pending
SAEE-SB0338-001.0-20210512	8082 SOXHLET	Pending
SAEE-SB0338-002.0-20210512	8082 SOXHLET	Pending
SAEE-SB0338-003.0-20210512	8082 SOXHLET	Pending

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

TGSM - Heat stress, slips, trips and falls, biological hazards.

6. Description of Work Completed

Collected 67 soil samples from borings SAEE-SB0321 through SAEE-SB0338. Samples collected from 0-0.5', 0.5'-1', 1'-2', 2'-3' and/or 3'-4' depth intervals. Soil samples beneath roadway were collected below the asphalt and roadbase material. Samples delivered to SGS laboratories. IDW placed in drum.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Howard Fowler	**5/12/2021**
Signature:	**5/12/2021**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett	**5/12/2021**
Signature: Jellett, Tim Digitally signed by Jellett, Tim Date: 2021.05.14 15:39:41 -04'00'	**5/12/2021**

HGL

SAFETY MEETING/TRAINING LOG

- ☐ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 5/12/21 0755 Client: NASA

Location: LOC 3 / PRL 227 Job No.: NS1005.07.05

Meeting/training conducted by: Howard Fowler

Work Activities: soil samples

Safety / Training Topics Presented

Chemical Hazards: PCBs

Physical Hazards: slips / trips / falls / Heat stress / Heavy lifting

Specific Safety Topic(s):

Specific Training Covered:

Attendees

Name Printed and Employee Number:	Signature:
Tim Jellett	
Robert Lynch	
Jason Bobolts	

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SGS - ORLANDO JOB # : PAGE 1 OF 2 (6)

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0321-001.0-20210512	5/12/21	0900	HF	SO	1										X	
	SAEE-SB0321-002.0-20210512	5/12/21	0901	HF	SO	1										X	
	SAEE-SB0321-003.0-20210512	5/12/21	0902	HF	SO	1										X	
	SAEE-SB0322-001.0-20210512	5/12/21	0905	HF	SO	1										X	
	SAEE-SB0322-002.0-20210512	5/12/21	0906	HF	SO	1										X	
	SAEE-SB0322-003.0-20210512	5/12/21	0907	HF	SO	1										X	
	SAEE-SB0323-001.0-20210512	5/12/21	0919	HF	SO	1										X	
	SAEE-SB0323-002.0-20210512	5/12/21	0920	HF	SO	1										X	
	SAEE-SB0323-003.0-20210512	5/12/21	0921	HF	SO	1										X	
	SAEE-SB0324-001.0-20210512	5/12/21	0929	HF	SO	1										X	
	SAEE-SB0324-002.0-20210512	5/12/21	0930	HF	SO	1										X	
	SAEE-SB0324-003.0-20210512	5/12/21	0931	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	HGL	5-12-21 15:05	2 PDWI	3		4
5	Relinquished by/Affiliation	Date Time:	6 Received By/Affiliation	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

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SGS - ORLANDO JOB # :

SGS - ORLANDO Quote #

SKIFF #

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Address: 2405 N. Courtney Parkway, STE 203

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Project Contact: Denise Rivers Email:drivers@hgl.com

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island State FL

Project # NS1005.07.07

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0325-001.0-20210512	5/12/21	0941	HF	SO	1										X	
	SAEE-SB0325-002.0-20210512	5/12/21	0942	HF	SO	1										X	
	SAEE-SB0325-003.0-20210512	5/12/21	0943	HF	SO	1										X	
	SAEE-SB0326-001.0-20210512	5/12/21	0948	HF	SO	1										X	
	SAEE-SB0326-002.0-20210512	5/12/21	0949	HF	SO	1										X	
	SAEE-SB0326-003.0-20210512	5/12/21	0950	HF	SO	1										X	
	SAEE-SB0327-000.5-20210512	5/12/21	0957	HF	SO	1										X	
	SAEE-SB0327-001.0-20210512	5/12/21	0958	HF	SO	1										X	
	SAEE-SB0327-002.0-20210512	5/12/21	0959	HF	SO	1										X	
	SAEE-SB0327-003.0-20210512	5/12/21	1000	HF	SO	1										X	
	SAEE-SB0328-000.5-20210512	5/12/21	1014	HF	SO	1										X	
	SAEE-SB0328-001.0-20210512	5/12/21	1015	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:

7 Day

5 Day

3 Day *RUSH*

2 Day *RUSH*

1 Day *RUSH*

Other

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	5-12-21 15:35	2 Pevult	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

5/12/21 1505

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SGS - ORLANDO JOB # : PAGE 3 OF 6

SGS - ORLANDO Quote # SKIFF #

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Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0328-002.0-20210512	5/12/21	1016	HF	SO	1										X	
	SAEE-SB0328-003.0-20210512	5/12/21	1017	HF	SO	1										X	
	SAEE-SB0329-000.5-20210512	5/12/21	1030	HF	SO	1										X	
	SAEE-SB0329-001.0-20210512	5/12/21	1031	HF	SO	1										X	
	SAEE-SB0329-002.0-20210512	5/12/21	1032	HF	SO	1										X	
	SAEE-SB0329-003.0-20210512	5/12/21	1033	HF	SO	1										X	
	SAEE-SB0330-000.5-20210512	5/12/21	1041	HF	SO	1										X	
	SAEE-SB0330-001.0-20210512	5/12/21	1042	HF	SO	1										X	
	SAEE-SB0330-002.0-20210512	5/12/21	1043	HF	SO	1										X	
	SAEE-SB0330-003.0-20210512	5/12/21	1044	HF	SO	1										X	
	SAEE-SB0331-000.5-20210512	5/12/21	1051	HF	SO	1										X	
	SAEE-SB0331-001.0-20210512	5/12/21	1052	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	HGL	5-12-21 1505	2	3		4
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

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SGS - ORLANDO JOB # : PAGE 4 -2- OF 6 -2-

SGS - ORLANDO Quote # SKIFF #

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Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0331-002.0-20210512	5/12/21	1053	HF	SO	1										X	
	SAEE-SB0331-003.0-20210512	5/12/21	1054	HF	SO	1										X	
	SAEE-SB0332-000.5-20210512	5/12/21	1104	HF	SO	1										X	
	SAEE-SB0332-001.0-20210512	5/12/21	1105	HF	SO	1										X	
	SAEE-SB0332-002.0-20210512	5/12/21	1106	HF	SO	1										X	
	SAEE-SB0332-003.0-20210512	5/12/21	1107	HF	SO	1										X	
	SAEE-SB0333-000.5-20210512	5/12/21	1134	HF	SO	1										X	
	SAEE-SB0333-001.0-20210512	5/12/21	1135	HF	SO	1										X	
	SAEE-SB0333-002.0-20210512	5/12/21	1136	HF	SO	1										X	
	SAEE-SB0333-003.0-20210512	5/12/21	1137	HF	SO	1										X	
	SAEE-SB0334-000.5-20210512	5/12/21	1143	HF	SO	1										X	
	SAEE-SB0334-001.0-20210512	5/12/21	1144	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
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- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation 1	Date Time: 5-12-21 15 05	Received By/Affiliation 2	Relinquished By/Affiliation 3	Date Time: 5/12/21 1505	Received By/Affiliation 4
Relinquished by/Affiliation 5	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

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SGS - ORLANDO JOB # : PAGE 5-2 OF 6-2 RL

SGS - ORLANDO Quote # | SKIFF #

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Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0334-002.0-20210512	5/12/21	1145	HF	SO	1										X	
	SAEE-SB0334-003.0-20210512	5/12/21	1146	HF	SO	1										X	
	SAEE-SB0335-000.5-20210512	5/12/21	1152	HF	SO	1										X	
	SAEE-SB0335-001.0-20210512	5/12/21	1153	HF	SO	1										X	
	SAEE-SB0335-002.0-20210512	5/12/21	1154	HF	SO	1										X	
	SAEE-SB0335-003.0-20210512	5/12/21	1155	HF	SO	1										X	
	SAEE-SB0336-000.5-20210512	5/12/21	1203	HF	SO	1										X	
	SAEE-SB0336-001.0-20210512	5/12/21	1204	HF	SO	1										X	
	SAEE-SB0336-002.0-20210512	5/12/21	1205	HF	SO	1										X	
	SAEE-SB0336-003.0-20210512	5/12/21	1206	HF	SO	1										X	
	SAEE-SB0337-000.5-20210512	5/12/21	1226	HF	SO	1										X	
	SAEE-SB0337-001.0-20210512	5/12/21	1227	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation
1		5-12-21 15:05	2
3	Relinquished By/Affiliation	Date Time:	Received By/Affiliation 4
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6
7	Relinquished By/Affiliation	Date Time:	Received By/Affiliation 8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 6 2 OF 6 2 RC

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.07
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0337-002.0-20210512	5/12/21	1228	HF	SO	1										X	
	SAEE-SB0337-003.0-20210512	5/12/21	1229	HF	SO	1										X	
	SAEE-SB0337-004.0-20210512	5/12/21	1230	HF	SO	1										X	
	SAEE-SB0338-000.5-20210512	5/12/21	1251	HF	SO	1										X	
	SAEE-SB0338-001.0-20210512	5/12/21	1252	HF	SO	1										X	
	SAEE-SB0338-002.0-20210512	5/12/21	1253	HF	SO	1										X	
	SAEE-SB0338-003.0-20210512	5/12/21	1254	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 HGL	5-12-21 15:05	2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

5/12/21 1505

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

Location PAL 227 LOC 3 Date 5-12-21

Project / Client NASA / KSC

NSI005.07.05

PURPOSE: Conduct soil sampling

PERSONNEL Howard F., Tim S., Jason B

Zob C.

EQUIPMENT: Soil sampling equipment, decon, bottle ware, spud bar

WEATHER: Hi- 86 Lo - 75° Partly cloudy, 50% chance of storms

0745 - Called KSC work control center for dig status, clear to dig

0900 - Howard F and Tim S. onsite, KSC utility locator onsite to clear marked soil sampling locations.

0900 - Collected SB0321-001.0 (0.5 - 1.0 ft bgs) very fine, brown, well sorted

0901 - Collected SB0321-002.0 (1.0 - 2.0 ft bgs) very fine, brown, well sorted

0902 - Collected SB0321-003.0 (2.0 - 3.0 ft bgs) very fine, brown, well sorted

0905 - Collected SB0322-001.0 (0.5-1.0) 3" asphalt, 3" road base, very fine, brown, well sorted

0906 - Collected SB0322-002.0 (1.0-2.0 ft bgs) very fine, well sorted, brown

0907 - Collected SB0322-003.0 (2.0-3.0 ft bgs) very fine, well sorted, brown

Location PEL 227 LOC 3 Date 5-12-21

Project / Client NASA / KSC

NS1005.07.05

0919 - collected SB0323-001.0 (0.5-1.0 ft bgs)
2" asphalt, 5" road base very fine, brown, well sorted

0920 - collected SB0323-002.0 (1.0-2.0 ft bgs)
very fine, well sorted, brown

0929 - collected SB0324-001.0 (0.5-1.0 ft bgs)
2" asphalt, 4" road base, very fine, well sorted brown

0936 - collected SB0324-002.0 (1.0-2.0 ft bgs)
very fine, well sorted, brown

0931 - collected SB0324-003.0 (2.0-3.0 ft bgs)
very fine, well sorted, light grey

0941 - collected SB0325-001.0 (0.5-1.0 ft bgs)
2" asphalt, 5" road base very fine, well sorted brown

0942 - collected SB0325-002.0 (1.0-2.0 ft bgs)
very fine, well sorted, brown

0943 - collected SB0325-003.0 (2.0-3.0 ft bgs)
very fine, moist, well sorted, brown

0948 - collected SB0326-001.0 (0.5-1.0 ft bgs)
2" asphalt, 4" road base, very fine, well sorted brown

0949 - collected SB0326-002.0 (1.0-2.0 ft bgs)
very fine, well sorted, brown

Rite in the Rain

Location PEL 227 LOC 3 Date 5-12-21

Project / Client NASA / KSC

NS1005.07.05

0950 - Collected SB0326-003.0 (2.0 3.0 ft bgs)
very fine, moist, well sorted, brown

0957 - Collected SB0327-000.5 (0-0.5 ft bgs)
very fine, well sorted, brown

0958 - Collected SB0327-001.0 (0.5-1.0 ft bgs)
very fine, well sorted, brown

0959 - Collected SB0327-002.0 (1.0 2.0 ft bgs)
very fine, well sorted, brown

1000 - Collected SB0327-003.0 (2.0 3.0 ft bgs)
very fine, well sorted, brown

1014 - Collected SB0327-000.5 (0-0.5 ft bgs)
very fine, dry, well sorted, brown

1015 - Collected SB0328-001.0 (0.5-1.0 ft bgs)
very fine, well sorted, brown

1016 - Collected SB0328-002.0 (1.0-2.0 ft bgs)
very fine, well sorted, brown

1017 - Collected SB0328-003.0 (2.0 3.0 ft bgs)
very fine, well sorted, brown, moist

1030 - Collected SB0329-000.5 (0-0.5 ft bgs)
very fine, dry, well sorted, light brown

1031 - Collected SB0329-001.0 (0.5-1.0 ft bgs)
very fine, well sorted, brown

1032 - Collected SB0329-002.0 (1.0-2.0 ft bgs)
very fine, moist, well sorted, brown

Location PEL 227 LOC 3 Date 5-12-21

Project / Client NASA / KSC

NS1005, 07, 05

1033 - Collected SB0329 - 003.0 (2.0 - 3.0 ft bgs)
very fine, well sorted, moist, brown

1041 - Collected SB0330 - 000.5 - (0 - 0.5 ft bgs)
very fine, well sorted, light grey

1042 - Collected SB0330 - 001.0 (0.5 - 1.0 ft bgs)
very fine, well sorted, brown

1043 - Collected SB0330 - 002.0 (1.0 - 2.0)
very fine, well sorted, brown, moist

1044 - Collected SB0330 - 003.0 (2.0 - 3.0 ft bgs)
very fine, well sorted, brown, moist

1051 - Collected SB0331 - 000.5 (0 - 0.5 ft bgs)
very fine, well sorted, dry, brown

1052 - Collected SB0331 - 001.0 (0.5 - 1.0 ft bgs)
very fine, well sorted, brown

1053 - Collected SB0331 - 002.0 (1.0 - 2.0 ft bgs)
very fine, well sorted, brown, moist

1054 - Collected SB0331 - 003.0 (2.0 - 3.0 ft bgs)
very fine, well sorted, brown, moist

1104 - Collected SB0332 - 000.5 (0 - 0.5 ft bgs)
very fine, well sorted, brown, dry

1105 - Collected SB0332 - 001.0 (0.5 - 1.0 ft bgs)
very fine, well sorted, brown

1106 - Collected SB0332 - 002.0 (1.0 - 2.0 ft bgs)
very fine, well sorted, brown

Rite in the Rain

Location PRL 227 LOC 3 Date 5-12-21

Project / Client NASA / KSC

NS 1005.07.05

1107 - Collected SB0332 - 003.0 (2.0 - 3.0 ft bgs)
very fine, moist, Sulfur odor, brown

1134 - Collected SB0333 - 000.5 (0 - 0.5 ft bgs)
very fine, brown, well sorted

1135 - Collected SB0333 - 001.0 (0.5 - 1.0 ft bgs)
very fine, brown, well sorted

1136 - Collected SB0333 - 002.0 (1.0 - 2.0 ft bgs)
very fine, brown, well sorted

1137 - Collected SB0333 - 003.0 (2.0 - 3.0 ft bgs)
mild sulfur odor, very well sorted, brown

1143 Collected SB0334 - 000.5 (0 - 0.5 ft bgs)
very fine, well sorted, brown, roots

1144 Collected SB0334 - 001.0 (0.5 - 1.0 ft bgs)
~~1145 - for~~ PRL very fine, well sorted, brown

1145 - Collected SB0334 - 002.0 (1.0 - 2.0 ft bgs)
very fine, well sorted, brown

1146 - Collected SB0334 - 003.0 (2.0 - 3.0 ft bgs)
well sorted, very fine, brown, moist

1152 - Collected SB0335 - 000.5 - 20210512
(0 - 0.5 ft bgs) well sorted, very fine, brown

1153 - Collected SB0335 - 001.0 (0.5 - 1.0 ft bgs)
very fine, well sorted, brown

1154 - Collected SB0335 - 002.0 (1.0 2.0)
very fine, well sorted, bruwn

Location PRL 227 Loc 3 Date 5-12-21

Project / Client NASA / KSC

NS1005.07 05

1155 - collected SB0335-003.0 (2.0-3.0)
very fine, well sorted, brown

1203 - collected SB0336-000.5 (0-0.5)
very fine, well sorted, brown

1204 - collected SB0336-001.0 (0.5-1.0)
very fine, well sorted, brown

1205 - collected SB0336-002.0 (1.0-2.0)
very fine, well sorted, brown

1206 collected SB0336-003.0 (2.0-3.0)
very fine, well sorted, brown

1226 - collected SB0337-000.5 (0-0.5)
very fine, well sorted, brown

1227 - collected SB0337-001.0 (0.5-1.0)
very fine, well sorted, brown

1228 - collected SB0337-002.0 (1.0-2.0)
very fine, well sorted, brown

1229 - collected SB0337-003.0 (2.0-3.0)
very fine, well sorted, brown

1230 - collected SB0337-004.0 (3.0-4.0)
very fine, well sorted, grey/brown

1251 - collected SB0338-000.5 (0-0.5)
very fine, well sorted, brown

1252 - collected SB0338-001.0 (0.5-1.0)
very fine, well sorted, brown

Location PRL 227 Loc 3 Date 5-12-21

Project / Client NASA / KSC

NS1005.07.05

1253 - Collected SB0338-002.0 (1.0-2.0)
very fine, well sorted, brown

1254 - Collected SB0338-003.0 (2.0-3.0)
very fine, large gravel, brown
- Refusal at 3.0 ft bgs

1-TE - Generated approx. 7 gallons of IDW decon liquids.

TGSM conducted at 0755

1435 - All personnel offsite.

1435 - Disposed of IDW into new drum 220967.

Daily Quality Control Report

HGL HydroGeoLogic, Inc Exceeding Expectations	**Daily Quality Control Report**
Date:	**6/15/2021**
NASA Remediation Project Manager:	Dinh Vo
HGL Program Manager	Janardan Patel
HGL Project Manager:	Carol Cady
Contract No.	80KSC019D0012
Task Order No.	80KSC019F0118-TD 4
Project Name:	PRL 227
Porject No.	NS1005.07.05

Day	S	M	T	W	TH	F	S
			X				

Weather	Bright Sun		Clear	Overcast		Rain	Fog
				X			
Temp	Min.			Max.			
	72			84			
Wind	Still	Moderate		High		Gust	
		X					
Humidity	Dry	Moderate		High		Rainfall	
		X					

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Jason Bublitz	Field Scientist	PRL 227	2	0	2
Dustin Lupis	Field Technician	PRL 227	2	0	2
TOTAL HGL PERSONNEL ONSITE		**2**	**TOTAL HOURS WORKED**		**4**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
TOTAL GOV PERSONNEL ONSITE		**0**	**0**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used
Hand Auger	6/15/2021	NA	NA	NA	2

Daily Quality Control Report

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling	**F = Finish**	Collect soil sample from 3'-4' and 4'-6' bgs from SB0012 and SB0338

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0012 and SAEE-SB0338	PCBs	Pending

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

Wildlife, Poisonous Plants, Heat Stress, Dehydration, Sunburn, Inclement Weather, High Winds, Noise, Heavy Equipment, Pinch Points, Chemical Exposure, Heavy Lifting and Slips, Trips and Falls.

6. Description of Work Completed

1000 - All personnel on-site. Conduct TGSM.
1010 - Locate sample locations previously staked using GPS unit.
1020 - Collect SB0012-004.0-20210615.
1026 - Collect SB0012-005.0-20210615.
1030 - Decontaminate soil sampling equipment.
1110 - Collect SB0338-004.0-20210615.
1118 - Collect SB0338-005.0-20210615.
1130 - Pack up equipment and secure site.
1200 - All personnel off-site for the day.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Jason Bublitz — **6/17/2021**

Signature: Bublitz, Jason Digitally signed by Bublitz, Jason Date: 2021.06.17 09:47:36 -04'00' — **6/17/2021**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett — **6/16/2021**

Signature: Jellett, Tim Digitally signed by Jellett, Tim Date: 2021.06.16 13:06:14 -04'00' — **6/16/2021**

HGL
HydroGeoLogic, Inc.
Exceeding Expectations

SAFETY MEETING/TRAINING LOG

- ☑ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 06/15/21 1000 Client: KSC/NASA

Location: SAEE PRL 217 Job No.: NS1005.07.05

Meeting/training conducted by: Jason Bublitz

Work Activities: Soil sampling at existing locations

Safety / Training Topics Presented

Chemical Hazards: PCB's

Physical Hazards: pinch points, slips, trips, falls, biologicals, COVID-19, hand tools, heat

Specific Safety Topic(s): Hand tools - hand augers

Specific Training Covered: Wear proper PPE. ~~watch~~ Be mindful of surroundings

Attendees

Name Printed and Employee Number:	Signature:
Dustin Lupis	
Jason Bublitz	

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Jason Bublitz Sampler 2: Dustin Lupis

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.07.05
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0012-004.0-20210615	6/15/21	1020	JB	SO	1		X								X	
	SAEE-SB0012-005.0-20210615	6/15/21	1026	JB	SO	1		X								X	
	SAEE-SB0338-004.0-20210615	6/15/21	1110	JB	SO	1		X								X	
	SAEE-SB0338-005.0-20210615	6/15/21	1118	JB	SO	1		X								X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		6-15-21/1520	2	3		4
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

Location PRL 227 LOC 3 Date 6-15-2021 37

Project / Client NASA / KSC

NS1005.07.05

Purpose - collect 3-4, 4-5 ft bgs soil samples from 0012 & 0338.

Personnel: Jason B. & Dustin L.

Equipment: Soil sampling and decontamination supplies, figures, SSSP

Weather: 82° cloudy, HI-84 LO-72

1000- All personnel on-site, conduct TGSM.

1010- locate sample locations previously staked using GPS, Utility lines marks still visible

1020 - Collect SB0012-004.0-20210615

1026 - collect SB0012-005.0-20210615

1030 - decontaminate augers, bowls & spoons.

1110 - collect SB0338-004.0-20210615

1118 - collect SB0338-005.0-20210615.

1130 - Pack equipment and secure site.

1200 - All personnel off-site for the day.

note: All samples to be analyzed for PCBs placed in 4oz jars. Samples placed on ice following collection.

Rite in the Rain

Photo 01. Photo of soil from SB0012 boring. 4’ on left and 5’ on right.

Photo 02. Photo of SB0012 staked location.

Photo 03. Photo of HGL staff hand auguring SB0338..

Photo 04. Photo of soil from SB0338 boring. 4’ on left and 5’ on right.

Photo 05. Photo of SB0338 staked location and borehole.

Daily Quality Control Report

HGL HydroGeoLogic, Inc Exceeding Expectations	**Daily Quality Control Report**		**Day**	**S**	**M**	**T**	**W**	**TH**	**F**	**S**
Date:	**8/31/2021**					**X**				
NASA Remediation Project Manager:	Deda Johansen		Weather	Bright Sun		Clear	Overcast		Rain	Fog
HGL Program Manager	Janardan Patel					X				
HGL Project Manager:	Howard Fowler		Temp	Min.			Max.			
Contract No.	80KSC019D0012			75			89			
Task Order No.	80KSC019F0118		Wind	Still	Moderate		High		Gust	
Project Name:	PRL 227 LOC 3 (SAEE)				X					
Project No.	NS1005.07.05		Humidity	Dry	Moderate		High		Rainfall	
							X			

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Howard Fowler	Senior Scientist	PRL 227 LOC 3	8	0	8
Robert Lynch	Staff Scientist	PRL 227 LOC 3	8	0	8
Barry Huston	Staff Scientist	PRL 227 LOC 3	8	0	8
Dustin Lupis	Field Technician	PRL 227 LOC 3	8	0	8
William Duttenhaver (Parker)	Field Technician	PRL 227 LOC 3	8	0	8
TOTAL HGL PERSONNEL ONSITE		**5**	**TOTAL HOURS WORKED**		**40**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
Deda Johansen	NASA/RPM	PRL 227 LOC 3	0.5
TOTAL GOV PERSONNEL ONSITE		**0**	**0.5**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling	**F = Finish**	Collected 105 soil samples total from 24 soil boring locations.

Daily Quality Control Report

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0339	PCBs (Soxhlet)	Pending
SAEE-SB0340		
SAEE-SB0341		
SAEE-SB0342		
SAEE-SB0343		
SAEE-SB0344		
SAEE-SB0345		
SAEE-SB0346		
SAEE-SB0347		
SAEE-SB0348		
SAEE-SB0349		
SAEE-SB0350		
SAEE-SB0351		
SAEE-SB0352		
SAEE-SB0353		
SAEE-SB0354		
SAEE-SB0355		
SAEE-SB0356		
SAEE-SB0357		
SAEE-SB0358		
SAEE-SB0359		
SAEE-SB0360		
SAEE-SB0361		
SAEE-SB0362		

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

Heat Stress, Pinch Points, Slips, Trips, and Falls, Inclement Weather

6. Description of Work Completed

Collected 105 soil samples from 24 soil boring locations (SAEE-SB0339 through SAEE-SB0362). Samples were collected from various depths: 0-0.5, 0.5-1.0, 1.0-2.0, 2.0-3.0, and 3.0-4.0 feet below ground surface (see attached Chain of Custody). Each soil sample was collected using a stainless steel hand auger and homogenized using stainless steel mixing bowls and spoons. All sampling equipment was decontaminated prior to sample collection. Decon IDW was containerized and transferred into a new 55-gallon drum (220530) staged at CCF. Called KSC Work Control Center prior to field work and confirmed dig status.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Robert Lynch	**8/31/2021**
Signature:	**8/31/2021**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett	**8/31/2021**
Signature:	**8/31/2021**

HGL
HydroGeoLogic, Inc
Exceeding Expectations

SAFETY MEETING/TRAINING LOG

- ☒ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 8/31/2021 - 0730 Client: NASA/KSC

Location: PRL 227 LOC 3 Job No.: NS1005.07.05

Meeting/training conducted by: Howard Fowler

Work Activities: Soil Sampling

Safety / Training Topics Presented

Chemical Hazards: PCBs

Physical Hazards: Heat Stress, Pinch Points, Slips, Trips, and Falls, Inclement Weather

Specific Safety Topic(s): PPE, Heat Stress and Dehydration - Take rest and water breaks as needed. Monitor KSC Weather Alerts

Specific Training Covered:

Attendees

Name Printed and Employee Number:	Signature:
Howard Fowler	
Robert Lynch	
Dustin Lupis	
William (Parker) Duttenhaver	
Barry Huston	

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SGS - ORLANDO JOB # : **PAGE___1___OF___9____**

SGS - ORLANDO Quote # **SKIFF #**

Client / Reporting Information

Company Name: HGL, Inc.

Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State: FL** **Zip:32937**

Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2: Jason Bublitz**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.07.07**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0339-000.5-20210831	8/31/21	0825	HF	SO	1										X	
	SAEE-SB0339-001.0-20210831	8/31/21	0826	HF	SO	1										X	
	SAEE-SB0339-002.0-20210831	8/31/21	0827	HF	SO	1										X	
	SAEE-SB0339-003.0-20210831	8/31/21	0828	HF	SO	1										X	
	SAEE-SB0340-000.5-20210831	8/31/21	0835	HF	SO	1										X	
	SAEE-SB0340-001.0-20210831	8/31/21	0836	HF	SO	1										X	
	SAEE-SB0340-002.0-20210831	8/31/21	0837	HF	SO	1										X	
	SAEE-SB0340-003.0-20210831	8/31/21	0838	HF	SO	1										X	
	SAEE-SB0341-000.5-20210831	8/31/21	0852	HF	SO	1										X	
	SAEE-SB0341-001.0-20210831	8/31/21	0853	HF	SO	1										X	
	SAEE-SB0341-002.0-20210831	8/31/21	0854	HF	SO	1										X	
	SAEE-SB0341-003.0-20210831	8/31/21	0855	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

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SGS - ORLANDO JOB # : **PAGE___2___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

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Phone #: 910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2:** Jason Bublitz

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island **State** FL

Project # NS1005.07.07

Fax #

Client Purchase Order #

Analytical Information

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SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104										LAB USE ONLY
	SAEE-SB0342-000.5-20210831	8/31/21	0858	HF	SO	1										X										
	SAEE-SB0342-001.0-20210831	8/31/21	0859	HF	SO	1										X										
	SAEE-SB0342-002.0-20210831	8/31/21	0900	HF	SO	1										X										
	SAEE-SB0342-003.0-20210831	8/31/21	0901	HF	SO	1										X										
	SAEE-SB0343-000.5-20210831	8/31/21	0909	HF	SO	1										X										
	SAEE-SB0343-001.0-20210831	8/31/21	0910	HF	SO	1										X										
	SAEE-SB0343-002.0-20210831	8/31/21	0911	HF	SO	1										X										
	SAEE-SB0344-000.5-20210831	8/31/21	0928	HF	SO	1										X										
	SAEE-SB0344-001.0-20210831	8/31/21	0929	HF	SO	1										X										
	SAEE-SB0344-002.0-20210831	8/31/21	0930	HF	SO	1										X										
	SAEE-SB0345-000.5-20210831	8/31/21	0936	HF	SO	1										X										
	SAEE-SB0345-001.0-20210831	8/31/21	0937	HF	SO	1										X										

Turnaround Time (Business days)

X 10 Day (Business) **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

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Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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www.sgs.com

SGS - ORLANDO JOB # : **PAGE___3___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

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Address: 2405 N. Courtney Parkway, STE 203

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Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2: Jason Bublitz**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.07.07**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104										LAB USE ONLY
	SAEE-SB0345-002.0-20210831	8/31/21	0938	HF	SO	1										X										
	SAEE-SB0345-003.0-20210831	8/31/21	0939	HF	SO	1										X										
	SAEE-SB0346-000.5-20210831	8/31/21	0952	HF	SO	1										X										
	SAEE-SB0346-001.0-20210831	8/31/21	0953	HF	SO	1										X										
	SAEE-SB0346-002.0-20210831	8/31/21	0954	HF	SO	1										X										
	SAEE-SB0346-003.0-20210831	8/31/21	0955	HF	SO	1										X										
	SAEE-SB0346-004.0-20210831	8/31/21	0956	HF	SO	1										X										
	SAEE-SB0347-000.5-20210831	8/31/21	0845	HF	SO	1										X										
	SAEE-SB0347-001.0-20210831	8/31/21	0846	HF	SO	1										X										
	SAEE-SB0347-002.0-20210831	8/31/21	0847	HF	SO	1										X										
	SAEE-SB0347-003.0-20210831	8/31/21	0848	HF	SO	1										X										
	SAEE-SB0347-004.0-20210831	8/31/21	0849	HF	SO	1										X										

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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SGS - ORLANDO JOB # : **PAGE___4___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

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Phone #: 910-233-8460

Sampler(s) Name(s) (Printed)
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Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island **State** FL

Project # NS1005.07.07

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104										LAB USE ONLY
	SAEE-SB0348-000.5-20210831	8/31/21	0914	HF	SO	1										X										
	SAEE-SB0348-001.0-20210831	8/31/21	0915	HF	SO	1										X										
	SAEE-SB0348-002.0-20210831	8/31/21	0916	HF	SO	1										X										
	SAEE-SB0348-003.0-20210831	8/31/21	0917	HF	SO	1										X										
	SAEE-SB0348-004.0-20210831	8/31/21	0918	HF	SO	1										X										
	SAEE-SB0349-000.5-20210831	8/31/21	1005	HF	SO	1										X										
	SAEE-SB0349-001.0-20210831	8/31/21	1006	HF	SO	1										X										
	SAEE-SB0349-002.0-20210831	8/31/21	1007	HF	SO	1										X										
	SAEE-SB0349-003.0-20210831	8/31/21	1008	HF	SO	1										X										
	SAEE-SB0349-004.0-20210831	8/31/21	1009	HF	SO	1										X										
	SAEE-SB0350-000.5-20210831	8/31/21	1023	HF	SO	1										X										
	SAEE-SB0350-001.0-20210831	8/31/21	1024	HF	SO	1										X										

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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SGS - ORLANDO JOB # : **PAGE___5___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

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Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.07.07**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0350-002.0-20210831	8/31/21	1025	HF	SO	1										X	
	SAEE-SB0350-003.0-20210831	8/31/21	1026	HF	SO	1										X	
	SAEE-SB0350-004.0-20210831	8/31/21	1027	HF	SO	1										X	
	SAEE-SB0351-004.0-20210831	8/31/21	1107	HF	SO	1										X	
	SAEE-SB0352-000.5-20210831	8/31/21	1119	HF	SO	1										X	
	SAEE-SB0352-001.0-20210831	8/31/21	1120	HF	SO	1										X	
	SAEE-SB0352-002.0-20210831	8/31/21	1121	HF	SO	1										X	
	SAEE-SB0352-003.0-20210831	8/31/21	1122	HF	SO	1										X	
	SAEE-SB0352-004.0-20210831	8/31/21	1123	HF	SO	1										X	
	SAEE-SB0353-000.5-20210831	8/31/21	1125	HF	SO	1										X	
	SAEE-SB0353-001.0-20210831	8/31/21	1126	HF	SO	1										X	
	SAEE-SB0353-002.0-20210831	8/31/21	1127	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

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SGS - ORLANDO Quote #	SKIFF #

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	SAEE-SB0353-003.0-20210831	8/31/21	1128	HF	SO	1										X										
	SAEE-SB0353-004.0-20210831	8/31/21	1129	HF	SO	1										X										
	SAEE-SB0354-000.5-20210831	8/31/21	1202	HF	SO	1										X										
	SAEE-SB0354-001.0-20210831	8/31/21	1203	HF	SO	1										X										
	SAEE-SB0354-002.0-20210831	8/31/21	1204	HF	SO	1										X										
	SAEE-SB0354-003.0-20210831	8/31/21	1205	HF	SO	1										X										
	SAEE-SB0354-004.0-20210831	8/31/21	1206	HF	SO	1										X										
	SAEE-SB0355-000.5-20210831	8/31/21	1054	HF	SO	1										X										
	SAEE-SB0355-001.0-20210831	8/31/21	1055	HF	SO	1										X										
	SAEE-SB0355-002.0-20210831	8/31/21	1056	HF	SO	1										X										
	SAEE-SB0355-003.0-20210831	8/31/21	1057	HF	SO	1										X										
	SAEE-SB0355-004.0-20210831	8/31/21	1058	HF	SO	1										X										

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

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1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : **PAGE___7___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.

Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State: FL** **Zip:32937**

Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2: Jason Bublitz**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.07.05**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	CONTAINER INFORMATION TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104										LAB USE ONLY
	SAEE-SB0357-000.5-20210831	8/31/21	1013	HF	SO	1										X										
	SAEE-SB0357-001.0-20210831	8/31/21	1014	HF	SO	1										X										
	SAEE-SB0357-002.0-20210831	8/31/21	1015	HF	SO	1										X										
	SAEE-SB0357-003.0-20210831	8/31/21	1016	HF	SO	1										X										
	SAEE-SB0357-004.0-20210831	8/31/21	1017	HF	SO	1										X										
	SAEE-SB0358-000.5-20210831	8/31/21	1228	HF	SO	1										X										
	SAEE-SB0358-001.0-20210831	8/31/21	1229	HF	SO	1										X										
	SAEE-SB0358-002.0-20210831	8/31/21	1230	HF	SO	1										X										
	SAEE-SB0358-003.0-20210831	8/31/21	1231	HF	SO	1										X										
	SAEE-SB0358-004.0-20210831	8/31/21	1232	HF	SO	1										X										
	SAEE-SB0359-000.5-20210831	8/31/21	0943	HF	SO	1										X										
	SAEE-SB0359-001.0-20210831	8/31/21	0944	HF	SO	1										X										

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
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Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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SGS - ORLANDO JOB # : **PAGE___8___OF___9____**

SGS - ORLANDO Quote #	SKIFF #

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Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island **State** FL

Project # NS1005.07.05

Fax #

Client Purchase Order #

Analytical Information

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	SAEE-SB0359-002.0-20210831	8/31/21	0945	HF	SO	1										X										
	SAEE-SB0359-003.0-20210831	8/31/21	0946	HF	SO	1										X										
	SAEE-SB0359-004.0-20210831	8/31/21	0947	HF	SO	1										X										
	SAEE-SB0360-000.5-20210831	8/31/21	1151	HF	SO	1										X										
	SAEE-SB0360-001.0-20210831	8/31/21	1152	HF	SO	1										X										
	SAEE-SB0360-002.0-20210831	8/31/21	1153	HF	SO	1										X										
	SAEE-SB0360-003.0-20210831	8/31/21	1154	HF	SO	1										X										
	SAEE-SB0360-004.0-20210831	8/31/21	1155	HF	SO	1										X										
	SAEE-SB0361-000.5-20210831	8/31/21	1038	HF	SO	1										X										
	SAEE-SB0361-001.0-20210831	8/31/21	1039	HF	SO	1										X										
	SAEE-SB0361-002.0-20210831	8/31/21	1040	HF	SO	1										X										
	SAEE-SB0361-003.0-20210831	8/31/21	1041	HF	SO	1										X										

Turnaround Time (Business days)

X 10 Day (Business) **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

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Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
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Street Kennedy Space Center

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Project # NS1005.07.05

Fax #

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	SAEE-SB0361-004.0-20210831	8/31/21	1042	HF	SO	1										X										
	SAEE-SB0362-000.5-20210831	8/31/21	1217	HF	SO	1										X										
	SAEE-SB0362-001.0-20210831	8/31/21	1218	HF	SO	1										X										
	SAEE-SB0362-002.0-20210831	8/31/21	1219	HF	SO	1										X										
	SAEE-SB0362-003.0-20210831	8/31/21	1220	HF	SO	1										X										
	SAEE-SB0356-000.5-20210831	8/31/21	1211	HF	SO	1										X										
	SAEE-SB0356-001.0-20210831	8/31/21	1212	HF	SO	1										X										
	SAEE-SB0356-002.0-20210831	8/31/21	1213	HF	SO	1										X										
	SAEE-SB0356-003.0-20210831	8/31/21	1214	HF	SO	1										X										

Turnaround Time (Business days)

X 10 Day (Business) **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
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5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

Location KSC - PRL 227 LOC 3 Date 8-31-21

Project / Client NASA - KSC

PURPOSE: conduct soil samplings

PERSONNEL: Howard F., Rob C.,

EQUIPMENT: Soil sampling equip and decon

WEATHER: HI - 89° LO 75° Partly Cloudy
30% chance of storms

0730 - All personnel onsite - conducted TGSM and staged equipment.

0825 - collected SB0339-000.5
very fine, brown, well sorted, moist

0826 - collected SB0339-001.0
very fine, brown, well sorted, moist

0827 - collected SB0339-002.0
very fine, brown, well sorted, moist

0828 - collected SB0339-003.0
very fine, well sorted, brown, moist
water table at 3.0 ft bgs

0835 - collected SB0340-000.5

0836 - collected SB0340-001.0

0837 - collected SB0340-002.0

0838 - collected SB0340-003.0
All samples very fine, brown, well sorted, and moist.

0845 - collected SAEE-SB0347-000.5

0846 - collected SAEE-SB0347-001.0

Location PEL 227 LOC 3 Date 8-31-21

Project / Client NASA - KSC

0847 - Collected SAEE - SB0347 - 002.0

0848 - Collected SAEE - SB0347 - 003.0

0849 - Collected SAEE - SB0347 - 004.0

All samples very fine, well sorted, brown, moist. Water table encountered at 4.0 ft bgs

0852 - Collected SB0341 - 000.5

0853 - Collected SB0341 - 001.0

0854 - Collected SB0341 - 002.0

0855 - Collected SB0341 - 003.0

All samples well sorted, brown, moist

0858 - Collected SB0342 - 000.5

0859 - Collected SB0342 - 001.0

0900 - Collected SB0342 - 002.0

0901 - Collected SB0342 - 003.0 - wet

All samples well sorted, brown, fine

0909 - Collected SB0343 - 000.5

0910 - Collected SB0343 - 001.0

0911 - Collected SB0343 - 002.0

- All samples well sorted, fine brown, moist

Rite in the Rain

Location PEL 227 LOC 3 Date 8-31-21

Project / Client NASA / KSC

0914 - Collected SB0348-000.5

0915 - Collected SB0348 - 001.0

0916 - Collected SB 0348 - 002.0

0917 - Collected SB0348 - 003.0

0918 - Collected SB0348 - 004.0

- All Samples well sorted, very fine, brown, mo. ST

0928 - Collected SB0344 - 000.5

0929 - Collected SB0344 - 001.0

0930 - Collected SB0344 - 002.0

All samples well sorted, very fine, brown, mo. ST

0936 - Collected SB0345 - 000.5

0937 - Collected SB0345 - 001.0

0938 Collected SB0345 - 002.0

0939 - Collected SB0345 - 003.0

- All samples well sorted, fine, brown and mo ST

0943 - Collected SB0359 - 000.5

0944 Collected SB0359 - 001.0

0945 Collected SB0359 - 002.0

0946 Collected SB0359 - 003.0

0947 Collected SB0359 - 004.0

0952 - Collected SB0346 - 000.5

Location PEL 227 LOC 3 Date 8-31-21

Project / Client NASA / KSC

0953 - Collected SB0346-001.0
0954 - Collected SB0346-002.0
0955 Collected SB0346-003.0
0956 - Collected SB0346-004.0
All samples from SB0359 and SB0346 very fine, well sorted, brown, and moist
1005 - Collected SB0349-000.5
1006 - Collected SB0349-001.0
1007 - Collected SB0349-002.0
1008 - Collected SB0349-003.0
1009 - Collected SB0349-004.0
All samples fine, well sorted, moist, and brown
1013 - Collected SB0357-000.5
1014 - Collected SB0357-001.0
1015 - Collected SB0357-002.0
1016 - Collected SB0357-003.0
1017 - Collected SB0357-004.0
All intervals fine, well sorted brown, moist
1023 - Collected SB0350-000.5
1024 - Collected SB0350-001.0
1025 - Collected SB0350-002.0

Rite in the Rain

Location PRL 227 Loc 3 Date 8-31-21

Project / Client NASA / KSC

1026 collected SB0350-003.0

1027 - collected SB0350-004.0

All intervals fine, well sorted, brown

1038 - collected SB0361-000.5

1039 - collected SB0361-001.0

1040 - collected SB0361-002.0

1041 - collected SB0361-003.0

1042 - collected SB0361-004.0

All intervals fine, well sorted, brown

1054 - collected SB0355-000.5

1055 - collected SB0355-001.0

1056 - collected SB0355-002.0

1057 - collected SB0355-003.0

1058 - collected SB0355-004.0

All intervals fine, well sorted, brown

1107 - collected SB0351-004.0

brown, well sorted fine

1119 - collected SB0352-000.5

1120 - collected SB0352-001.0

1121 - collected SB0352-002.0

1122 - collected SB0352-003.0

1123 - collected SB0352-004.0

All intervals fine, well sorted, brown

Location PRL 227 LOC 3 Date 8-31-21

Project / Client NASA / KSC

1125 - Collected SB0353 - 000.5

1126 - Collected SB0353 - 001.0

1127 - Collected SB0353 - 002.0

1128 - Collected SB0353 - 003.0

1129 - Collected SB0353 - 004.0

- All intervals fine, well sorted, brown

1130 - Deda (NASA RPM) onsite

1151 - Collected SB0360 - 000.5

1152 - Collected SB0360 - 001.0

1153 - Collected SB0360 - 002.0

1154 - Collected SB0360 - 003.0

1155 - Collected SB0360 - 004.0

- All intervals well sorted, fine, brown

1200 - Deda offsite.

1202 - Collected SB0354 - 000.5

1203 - Collected SB0354 - 001.0

1204 - Collected SB0354 - 002.0

1205 - Collected SB0354 - 003.0

1206 Collected SB0354 - 004.0

- All intervals fine, well sorted, brown

1211 - Collected SB0356 - 000.5

1212 - Collected SB0356 - 001.0

1213 - Collected SB0356 - 002.0

Rite in the Rain

Location PRL 227 LOC 3 Date 8-31-21

Project / Client NASA / KSC

1214 - Collected SB0356 - 003.0

- All intervals well sorted, fine, brown

1217 - collected SB0362-000.5

1218 - collected SB0362-001.0

1219 - collected SB0362-002.0

1220 - Collected SB0362 - 003.0

- All intervals fine, well sorted, brown

1228 - collected SB0358 - 000.5

1229 - collected SB0358 - 001.0

1230 - collected SB0358 - 002.0

1231 - collected SB0358 - 003.0

1232 - collected SB0358 - 004.0

- All intervals fine, well sorted, brown

1250 - Began equipment breakdown and cleanup. Recorded coordinates for all locations.

1400 - All personnel off site.

- NOTES - Approx. 15 gallons of decon IDW was generated, and disposed into new drum 220530 staged at CCF. All soil samples were collected using decontaminated hand auger, mixing bowls and spoons.

Daily Quality Control Report

HGL HydroGeoLogic, Inc. Excelling Expectations	**Daily Quality Control Report**	**Day**	**S**	**M**	**T**	**W**	**TH**	**F**	**S**
Date:	**11/3/2021**					**X**			
NASA Remediation Project Manager:	Deda Johansen	Weather	Bright Sun		Clear	Overcast		Rain	Fog
HGL Program Manager	Janardan Patel				X				
HGL Project Manager:	Howard Fowler	Temp	Min.			Max.			
Contract No.	80KSC019D0012		61			78			
Task Order No.	80KSC019F0118	Wind	Still	Moderate		High		Gust	
Project Name:	PRL 227 LOC 3 (SAEE)			X					
Project No.	NS1005.12.07	Humidity	Dry	Moderate		High		Rainfall	
						X			

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Howard Fowler	Senior Scientist	PRL 227 LOC 3	6	2	8
Robert Lynch	Staff Scientist	PRL 227 LOC 3	6	2	8
Barry Huston	Staff Scientist	PRL 227 LOC 3	6	0	6
William Duttenhaver (Parker)	Field Technician	PRL 227 LOC 3	6	0	6
TOTAL HGL PERSONNEL ONSITE		**4**	**TOTAL HOURS WORKED**		**28**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
TOTAL GOV PERSONNEL ONSITE		**0**	**0**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling	**F = Finish**	Collected 59 soil samples total from 18 soil boring locations.

Daily Quality Control Report

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0296	PCBs (Soxhlet)	Pending
SAEE-SB0325		
SAEE-SB0326		
SAEE-SB0327		
SAEE-SB0356		
SAEE-SB0362		
SAEE-SB0351		
SAEE-SB0372		
SAEE-SB0373		
SAEE-SB0363		
SAEE-SB0364		
SAEE-SB0365		
SAEE-SB0366		
SAEE-SB0367		
SAEE-SB0368		
SAEE-SB0369		
SAEE-SB0370		
SAEE-SB0371		

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

Heat Stress, Pinch Points, Slips, Trips, and Falls, Inclement Weather

6. Description of Work Completed

Collected 59 soil samples from 18 soil boring locations (SAEE-SB0296, SAEE-SB00325 through SAEE-SB0327, SAEE-SB0351, SAEE-SB0356, and SAEE-SB0362 through SAEE-SB0373). Samples were collected from various depths: 0-0.5, 0.5-1.0, 1.0-2.0, 2.0-3.0, 3.0-4.0, 4.0-5.0, and 5.0-6.0 feet below ground surface (see attached Chain of Custody). Each soil sample was collected using a stainless steel hand auger and homogenized using stainless steel mixing bowls and spoons. All sampling equipment was decontaminated prior to sample collection. Decon IDW was containerized and transferred into a 55-gallon drum (220530) staged at CCF. Called KSC Work Control Center prior to field work and confirmed dig status was good-to-dig.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Robert Lynch	**11/3/2021**
Signature: Lynch, Robert Digitally signed by Lynch, Robert Date: 2021.11.03 15:17:47 -04'00'	**11/3/2021**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett	**11/3/2021**
Signature: Jellett, Tim Digitally signed by Jellett, Tim Date: 2021.11.03 15:33:59 -04'00'	**11/3/2021**

SAFETY MEETING/TRAINING LOG

- [x] Tailgate (daily)
- [ ] Activity Hazard Analysis
- [ ] Pre-Task Hazard Analysis (prior to new task or operation)
- [ ] Site Safety Orientation (new personnel)
- [ ] Supervisor's (monthly)
- [ ] Supervisor's (weekly)
- [ ] UXO Awareness
- [ ] Asbestos Awareness
- [ ] Health and Safety Plan Addendum: _____
- [ ] Other: ___

Date/Time: 11/03/2021

Client: NASA - KSC

Location: PRL 227 LOC 3

Job No.: NS1005.12.07

Meeting/training conducted by: Howard Fowler

Work Activities: Soil Sampling

Safety / Training Topics Presented

Chemical Hazards: PCBs

Physical Hazards: Pinch points, slips, trips, and falls, hand tools

Specific Safety Topic(s): COVID-19, PPE, Heat Stress and Dehydration

Specific Training Covered:

Attendees

Name Printed and Employee Number:	Signature:
Howard Fowler	
Robert Lynch	
William Duttenhaver	
Barry Huston	

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Chain of Custody

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SGS - ORLANDO JOB # : **PAGE___1___OF___5____**

SGS - ORLANDO Quote # **SKIFF #**

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Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State: FL** **Zip:32937**

Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2:**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.12.04**

Fax #

Client Purchase Order #

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	SAEE-SB0296-005.0-20211103	11/3/21	0905	HF	SO	1										X	
	SAEE-SB0296-006.0-20211103	11/3/21	0907	HF	SO	1										X	
	SAEE-SB0325-004.0-20211103	11/3/21	0935	HF	SO	1										X	
	SAEE-SB0325-005.0-20211103	11/3/21	0937	HF	SO	1										X	
	SAEE-SB0326-004.0-20211103	11/3/21	0909	HF	SO	1										X	
	SAEE-SB0326-005.0-20211103	11/3/21	0911	HF	SO	1										X	
	SAEE-SB0327-004.0-20211103	11/3/21	0938	HF	SO	1										X	
	SAEE-SB0327-005.0-20211103	11/3/21	0939	HF	SO	1										X	
	SAEE-SB0356-004.0-20211103	11/3/21	0958	HF	SO	1										X	
	SAEE-SB0356-005.0-20211103	11/3/21	0959	HF	SO	1										X	
	SAEE-SB0362-004.0-20211103	11/3/21	1007	HF	SO	1										X	
	SAEE-SB0362-005.0-20211103	11/3/21	1008	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

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Chain of Custody

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www.sgs.com

SGS - ORLANDO JOB # : **PAGE___2___OF___5____**

SGS - ORLANDO Quote # **SKIFF #**

Client / Reporting Information

Company Name: HGL, Inc.

Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State: FL** **Zip:32937**

Project Contact: Denise Rivers **Email:drivers@hgl.com**

Phone #:910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler **Sampler 2:**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.12.04**

Fax #

Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0351-000.5-20211103	11/3/21	1017	HF	SO	1										X	
	SAEE-SB0351-001.0-20211103	11/3/21	1018	HF	SO	1										X	
	SAEE-SB0351-002.0-20211103	11/3/21	1019	HF	SO	1										X	
	SAEE-SB0351-003.0-20211103	11/3/21	1020	HF	SO	1										X	
	SAEE-SB0351-004.0-20211103	11/3/21	1021	HF	SO	1										X	
	SAEE-SB0372-000.5-20211103	11/3/21	1037	HF	SO	1										X	
	SAEE-SB0372-001.0-20211103	11/3/21	1038	HF	SO	1										X	
	SAEE-SB0372-002.0-20211103	11/3/21	1039	HF	SO	1										X	
	SAEE-SB0372-003.0-20211103	11/3/21	1040	HF	SO	1										X	
	SAEE-SB0372-004.0-20211103	11/3/21	1041	HF	SO	1										X	
	SAEE-SB0373-000.5-20211103	11/3/21	1051	HF	SO	1										X	
	SAEE-SB0373-001.0-20211103	11/3/21	1052	HF	SO	1										X	

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7 Day

5 Day

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2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

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☐ **EDD'S**

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Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

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AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0373-002.0-20211103	11/3/21	1053	HF	SO	1										X	
	SAEE-SB0373-003.0-20211103	11/3/21	1054	HF	SO	1										X	
	SAEE-SB0373-004.0-20211103	11/3/21	1055	HF	SO	1										X	
	SAEE-SB0363-000.5-20211103	11/3/21	1109	HF	SO	1										X	
	SAEE-SB0363-001.0-20211103	11/3/21	1110	HF	SO	1										X	
	SAEE-SB0363-002.0-20211103	11/3/21	1111	HF	SO	1										X	
	SAEE-SB0363-003.0-20211103	11/3/21	1112	HF	SO	1										X	
	SAEE-SB0364-000.5-20211103	11/3/21	1123	HF	SO	1										X	
	SAEE-SB0364-001.0-20211103	11/3/21	1124	HF	SO	1										X	
	SAEE-SB0364-002.0-20211103	11/3/21	1125	HF	SO	1										X	
	SAEE-SB0364-003.0-20211103	11/3/21	1126	HF	SO	1										X	
	SAEE-SB0365-000.5-20211103	11/3/21	1131	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

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- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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Relinquished by Sampler/Affiliation 1	**Date Time:**	**Received By/Affiliation** 2	**Relinquished By/Affiliation** 3	**Date Time:**	**Received By/Affiliation** 4
Relinquished by/Affiliation 5	**Date Time:**	**Received By/Affiliation** 6	**Relinquished By/Affiliation** 7	**Date Time:**	**Received By/Affiliation** 8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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WW - Water
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SO - Soil
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OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0365-001.0-20211103	11/3/21	1132	HF	SO	1										X	
	SAEE-SB0365-002.0-20211103	11/3/21	1133	HF	SO	1										X	
	SAEE-SB0365-003.0-20211103	11/3/21	1134	HF	SO	1										X	
	SAEE-SB0366-000.5-20211103	11/3/21	1150	HF	SO	1										X	
	SAEE-SB0366-001.0-20211103	11/3/21	1151	HF	SO	1										X	
	SAEE-SB0366-002.0-20211103	11/3/21	1152	HF	SO	1										X	
	SAEE-SB0366-003.0-20211103	11/3/21	1153	HF	SO	1										X	
	SAEE-SB0367-000.5-20211103	11/3/21	1159	HF	SO	1										X	
	SAEE-SB0367-001.0-20211103	11/3/21	1200	HF	SO	1										X	
	SAEE-SB0367-002.0-20211103	11/3/21	1201	HF	SO	1										X	
	SAEE-SB0367-003.0-20211103	11/3/21	1202	HF	SO	1										X	
	SAEE-SB0368-000.5-20211103	11/3/21	1213	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**

7 Day

5 Day

3 Day *RUSH* _____

2 Day *RUSH* _____

1 Day *RUSH* _____

Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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Phone #:910-233-8460

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Sampler 1: Howard Fowler **Sampler 2:**

Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1005.12.04**

Fax #

Client Purchase Order #

Analytical Information

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SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0368-001.0-20211103	11/3/21	1214	HF	SO	1										X	
	SAEE-SB0368-002.0-20211103	11/3/21	1215	HF	SO	1										X	
	SAEE-SB0369-000.5-20211103	11/3/21	1223	HF	SO	1										X	
	SAEE-SB0369-001.0-20211103	11/3/21	1224	HF	SO	1										X	
	SAEE-SB0369-002.0-20211103	11/3/21	1225	HF	SO	1										X	
	SAEE-SB0370-000.5-20211103	11/3/21	1233	HF	SO	1										X	
	SAEE-SB0370-001.0-20211103	11/3/21	1234	HF	SO	1										X	
	SAEE-SB0370-002.0-20211103	11/3/21	1235	HF	SO	1										X	
	SAEE-SB0371-000.5-20211103	11/3/21	1245	HF	SO	1										X	
	SAEE-SB0371-001.0-20211103	11/3/21	1246	HF	SO	1										X	
	SAEE-SB0371-002.0-20211103	11/3/21	1247	HF	SO	1										X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Change SAEE-SB0351-004.0-20210831 to SAEE-SB0296-004.0-20210831

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

Location FRL 227 LOC 3 Date 11-3-21

Project / Client NASA / KSC

NS1005.12.07

PURPOSE: Conduct soil sampling

PERSONNEL: Howard F., Rob L., William D.

Barry H

EQUIPMENT: Soil sampling equipment

decon equipment,

WEATHER: Hi- 78° Lo 61° Mostly

Sunny Humidity 95% W/ND 0 mph

0800 All personnel onsite. called

KSC Work Control Center for dig

status (clear to dig), Conducted

TGSM and began staging equipment

0905 - collected SB0296-005.0 } well sorted

0907 - collected SB0296-006.0 fine, brown

0909 - collected SB0326-004.0

0911 - collected SB0326 005.0

- Both intervals well sorted, fine

and brown

0935 - collected SB0325-004.0

0937 - collected SB0325-005.0

- Both intervals well sorted, fine, brown

0938 - Collected SB0327-004.0

0939 - Collected SB0327-005.0

- Both intervals well sorted, fine, brown

Rite in the Rain.

Location PEL227 LOC 3 Date 11-3-21

Project / Client NASA / KSC

NS1005.12.07

0958 - Collected SB0356-004.0 * more moist than

0959 - Collected SB0356-005.0 ←

- Both intervals well sorted, fine, brown

- WT encountered at 4.5-5.0 ft

1007 - Collected SB0362-004.0

1008 - Collected SB0362-005.0

- Both intervals well sorted, fine, brown

1017 - Collected SB0351-000.5

1018 - Collected SB0351-001.0

1019 - Collected SB0351-002.0

1020 - Collected SB0351-003.0

1021 - Collected SB0351-004.0

- All intervals well sorted, fine, brown

1037 - Collected SB0372-000.5

1038 - Collected SB0372-001.0

1039 - Collected SB0372-002.0

1040 - Collected SB0372-003.0

1041 - Collected SB0372-004.0

- All intervals well sorted, fine, brown

1051 - Collected SB0373-000.5

1052 - Collected SB0373-001.0

1053 - Collected SB0373-002.0

1054 - Collected SB0373-003.0

1055 - Collected SB0373-004.0

- All intervals well sorted, fine, brown

Location PEL 227 LOC 3 Date 11-3-21

Project / Client NASA / KSC

NS1005.12.07

1109	- Collected	SB0363-000.5
1110	- Collected	SB0363-001.0
1111	- Collected	SB0363-002.0
1112	- Collected	SB0363-003.0
	- All intervals well sorted, fine, brown	
1123	- Collected	SB0364-000.5
1124	- Collected	SB0364-001.0
1125	- Collected	SB0364-002.0
1126	- Collected	SB0364-003.0
	- All intervals well sorted, fine, brown	
1131	- Collected	SB0365-000.5
1132	- Collected	SB0365-001.0
1133	- Collected	SB0365-002.0
1134	- Collected	SB0365-003.0
	- All intervals well sorted, fine, brown	
1150	- Collected	SB0366-000.5
1151	- Collected	SB0366-001.0
1152	- Collected	SB0366-002.0
1153	- Collected	SB0366-003.0
	- All intervals well sorted, fine, brown	
1159	- Collected	SB0367-000.5
1200	- Collected	SB0367-001.0
1201	- Collected	SB0367-002.0
1202	- Collected	SB0367-003.0
	- All intervals well sorted, brown	

Rite in the Rain

Location PRL 227 LOC 3 Date 11-3-21

Project / Client NASA / KSC

N 5100 5.12.07

1213 - Collected SB0368 - 000.5

1214 - Collected SB0368 - 001.0

1215 - Collected SB0368 - 002.0

- All intervals well sorted, fine, brown

1223 - Collected SB0369 - 000.5

1224 - Collected SB0369 - 001.0

1225 - Collected SB0369 - 002.0

- All intervals well sorted, fine, brown

1233 - Collected SB0370 - 000.5

1234 - Collected SB0370 - 001.0

1235 - Collected SB0370 - 002.0

- All intervals well sorted, fine, brown

1245 - Collected SB0371 - 000.5

1246 - Collected SB0371 - 001.0

1247 - Collected SB0371 - 002.0

- All intervals well sorted, fine, brown

- NOTE - All soil samples collected in 4 oz jars for PCBs analysis. Hand auger buckets, mixing bowls and spoons decontaminated prior to sampling. Disposed of approx. 5-6 gallons IDW into drum 220530.

1345 - All personnel offsite.

Daily Quality Control Report

HGL HydroGeoLogic, Inc. Exceeding Expectations	**Daily Quality Control Report**
Date:	**2/14/2022**
NASA Remediation Project Manager	Deda Johansen
HGL Program Manager:	Richard Smith
HGL Project Manager:	Richard Smith
Prime Contract No.	80KSC019D0012
Project Name:	PRL-227, LOC 3 SAEE
Project No.	NS1005.07.05

Day	S	M	T	W	TH	F	S
		X					

Weather	Bright Sun	Clear	Overcast	Rain	Fog
		X			
Temp	Min.		Max.		
	52		65		
Wind	Still	Moderate	High	Gust	
		X			
Humidity	Dry	Moderate	High	Rainfall	
		X			

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Howard Fowler	Senior Scientist	PRL227LOC3	5		5
Tim Jellett	Senior Scientist	PRL227LOC3	5		5
Pearket Duttenhaver	Technician	PRL227LOC3	5		5
TOTAL HGL PERSONNEL ONSITE		**3**	**TOTAL HOURS WORKED**		**15**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
Deda Johansen	KSC/RPM	PRL 227, LOC 3	0.5
TOTAL GOV PERSONNEL ONSITE	**1**		**0.5**

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		**0**

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
DPT Rig	02/14/22	02/14/22	5		

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used
Hand auger, bowls and spoons	02/14/22				5

3. Field Activities

DFOW / ACTIVITY / DELIVERIES	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Soil Sampling		
Soil Sampling	F	Collected 36 soil samples from 9 boring locations.

Daily Quality Control Report

4. Testing and Sampling Activities

4.1 Sampling Conducted

Location	Analysis	Results - Detected / Not Detected
SAEE-SB0012-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0012-011.0-20220214	8082 SOXHLET	Pending
SAEE-SB0012-020.0-20220214	8082 SOXHLET	Pending
SAEE-SB0362-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0362-007.0-20220214	8082 SOXHLET	Pending
SAEE-SB0362-008.0-20220214	8082 SOXHLET	Pending
SAEE-SB0362-009.0-20220214	8082 SOXHLET	Pending
SAEE-SB0362-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0307-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0357-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0356-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0356-007.0-20220214	8082 SOXHLET	Pending
SAEE-SB0356-008.0-20220214	8082 SOXHLET	Pending
SAEE-SB0356-009.0-20220214	8082 SOXHLET	Pending
SAEE-SB0356-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-005.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-007.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-008.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-009.0-20220214	8082 SOXHLET	Pending
SAEE-SB0360-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0326-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0326-007.0-20220214	8082 SOXHLET	Pending
SAEE-SB0326-008.0-20220214	8082 SOXHLET	Pending
SAEE-SB0326-009.0-20220214	8082 SOXHLET	Pending
SAEE-SB0326-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0325-006.0-20220214	8082 SOXHLET	Pending
SAEE-SB0325-007.0-20220214	8082 SOXHLET	Pending
SAEE-SB0325-008.0-20220214	8082 SOXHLET	Pending
SAEE-SB0325-009.0-20220214	8082 SOXHLET	Pending
SAEE-SB0325-010.0-20220214	8082 SOXHLET	Pending
SAEE-SB0374-000.5-20220214	8082 SOXHLET	Pending
SAEE-SB0374-001.0-20220214	8082 SOXHLET	Pending
SAEE-SB0374-002.0-20220214	8082 SOXHLET	Pending
SAEE-SB0374-003.0-20220214	8082 SOXHLET	Pending
SAEE-SB0374-004.0-20220214	8082 SOXHLET	Pending

5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)

TGSM - Drill rig safety, utility avoidance

6. Description of Work Completed

Advanced 1 lithologic boring at SB0012 to 20 feet BLS. Collected 36 soil samples from 9 location for PCBs analysis. Samples collected from various depth intervals. Samples delivered to SGS laboratories. IDW placed in drum.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Howard Fowler	**2/14/2022**
Signature:	**2/14/2022**

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett	**2/14/2022**
Signature: Jellett, Tim Digitally signed by Jellett, Tim Date: 2022.02.16 06:40:40 -05'00'	**2/14/2022**

HGL
HydroGeoLogic, Inc.
Exceeding Expectations

SAFETY MEETING/TRAINING LOG

- ☐ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 2-14-22 9:50 Client: _____

Location: HSC PRL 227, Loc 3 Job No.: _____

Meeting/training conducted by: Howard Fowler

Work Activities: Soil sampling

Safety / Training Topics Presented

Chemical Hazards: PCBs

Physical Hazards: Utilities, Drill Rig

Specific Safety Topic(s): Drill rig safety, utility Avoidance

Specific Training Covered: _____

Attendees

Name Printed and Employee Number:	Signature:
Tim Jellett	
William Dutterhaver	
Christian Dodd	
Terry L. Winstead II	
Dede Johansen	

HGL
HydroGeoLogic, Inc
Exceeding Expectations

Direct-Push Rig Inspection Checklist

Project Name/Number: _____

Make/Model Number: Geoprobe DT7822

Equipment Number: 191

Hours/Mileage: 3455.2

Rig clean and free of soils, oils, and other debris.	✓	Tracks in good condition.	✓
All hydraulic fittings and hoses free of damage, tightened, and not leaking.	✓	Tires fully inflated and in good condition.	✓
Rig controls clearly labeled and in working condition.	✓	Back-up alarm working.	✓
Rig Kill Switch in working order.	✓	First Aid Kit accessible and stocked.	✓
All of the Rig's connections tightened and leak-free.	✓	Fire Extinguisher accessible and fully charged.	✓
Parking brake functions properly.	✓	Eye Wash full and accessible.	✓
Steering controls in working order and clear of obstacles.	✓	Hearing protection available and is being used during hammering.	✓
Copy of the manual for all drilling equipment available.	✓	All overhead and underground hazards identified.	✓

√ = OK
N/A = Not Applicable
X = Defective

These items are to be checked each shift before operating this piece of equipment.
Report all items requiring repair to supervisor.

Notes:
Operator/Inspector: Christian Dodd Date: 2-14-22

BORING LOG

Boring/Well Number: SAEE - SB012	Permit Number:		FDEP Facility Identification Number:
Site Name: KSC PAL 227, Loc 3	Borehole Start Date: 2-14-22 End Date: 2-14-22	Borehole Start Time: 10:00 ☒ AM ☐ PM End Time: 10:30 ☒ AM ☐ PM	
Environmental Contractor: HGL	Geologist's Name: Tim Jellett		Environmental Technician's Name:
Drilling Company: Drill Pro	Pavement Thickness (inches): NA	Borehole Diameter (inches):	Borehole Depth (feet): 20'
Drilling Method(s): DPT	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							1	dark Brn medium/fine sand trace gravel.			
							2	fine sand, dark Brown, trace organics.			
							3	fine sand Lt Brn to grey.			
							4				
							5	grey fine sand. moist @ 5'. dark Brn sand, fine.			
							6	dark Brn. very fine sand to 7'			
							7	@ 7' very dk Brn sand possibly organic layer.			
							8	from 8 to 10' fine Brn sand.			
							9	to medium sand			
							10	dry silt Layer with roots Brn. Black organic.			
							11	silty sand wet @ 12'.			
							12	dry interval silty sand 12 - 15' Brn			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

BORING LOG

Boring/Well Number:	FDEP Facility Identification Number:	Site Name:	Borehole Start Date:
SAEE-SB012		KSC PAL 227, Loc 3	2-14-22
			End Date: 2-14-22

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							13	dry light silt layer to 15'			
							14				
							15	wet medium sand orange to Brn, well sorted sand.			
							16				
							17	Same as above to 20'. m to s			
							18	sand @ 19'			
							19	↓			
							20	slight green layer @ 20'			
								EOB 20'.			
							21				
							22				
							23				
							24				
							25				
							26				
							27				
							28				
							29				
							30				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0012-010.0-20220214	2/14/22	10:35	HF	SO	1										X	
	SAEE-SB0012-011.0-20220214	2/14/22	10:40	HF	SO	1										X	
	SAEE-SB0012-020.0-20220214	2/14/22	10:45	HF	SO	1										X	
	SAEE-SB0362-006.0-20220214	2/14/22	10:53	HF	SO	1										X	
	SAEE-SB0362-007.0-20220214	2/14/22	10:55	HF	SO	1										X	
	SAEE-SB0362-008.0-20220214	2/14/22	10:57	HF	SO	1										X	
	SAEE-SB0362-009.0-20220214	2/14/22	10:59	HF	SO	1										X	HOLD
	SAEE-SB0362-010.0-20220214	2/14/22	11:02	HF	SO	1										X	HOLD
	SAEE-SB0307-006.0-20220214	2/14/22	11:21	HF	SO	1										X	
	SAEE-SB0357-010.0-20220214	2/14/22	11:32	HF	SO	1										X	
	SAEE-SB0356-006.0-20220214	2/14/22	11:50	HF	SO	1										X	
	SAEE-SB0356-007.0-20220214	2/14/22	11:52	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remark:

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):_____

http://www.sgs.com/en/terms-and-conditions

SGS North America Inc - Orlando

Chain of Custody

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www.sgs.com

SGS - ORLANDO JOB # : PAGE 2 OF 3

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.
Address: 2405 N. Courtney Parkway, STE 203
City: Merrit Island State: FL Zip:32937
Project Contact: Denise Rivers Email:drivers@hgl.com
Phone #:910-233-8460
Sampler(s) Name(s) (Printed)
Sampler 1: Howard Fowler Sampler 2: Tim Jellet

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling
Street Kennedy Space Center
City Merritt Island State FL
Project # NS1005.12.04
Fax #
Client Purchase Order #

Analytical Informatio

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0356-008.0-20220214	2/14/22	11:54	HF	SO	1										X	
	SAEE-SB0356-009.0-20220214	2/14/22	11:56	HF	SO	1										X	HOLD
	SAEE-SB0356-010.0-20220214	2/14/22	11:58	HF	SO	1										X	HOLD
	SAEE-SB0360-005.0-20220214	2/14/22	12:05	HF	SO	1										X	
	SAEE-SB0360-006.0-20220214	2/14/22	12:07	HF	SO	1										X	
	SAEE-SB0360-007.0-20220214	2/14/22	12:09	HF	SO	1										X	
	SAEE-SB0360-008.0-20220214	2/14/22	12:11	HF	SO	1										X	
	SAEE-SB0360-009.0-20220214	2/14/22	12:13	HF	SO	1										X	HOLD
	SAEE-SB0360-010.0-20220214	2/14/22	12:15	HF	SO	1										X	HOLD
	SAEE-SB0326-006.0-20220214	2/14/22	12:20	HF	SO	1										X	
	SAEE-SB0326-007.0-20220214	2/14/22	12:22	HF	SO	1										X	
	SAEE-SB0326-008.0-20220214	2/14/22	12:24	HF	SO	1										X	

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULLT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remark

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):_____

http://www.sgs.com/en/terms-and-conditions

Location PRL 227, Loc 3 Date 2-14-22 49

Project / Client NASA KSC

9:30 Howard Fowler, T.n Jellet + Parker Puttenhaven on site w. N D-11 Pro to collect DPT soil SAMPLES. 52°, sunny, South wind.

9:50 Contact TSM. Discussed D-11 's safety and utility avoidance

10:00 Begin hand clearing SB0012 Log the Boring to 20'.

w

10:30 Delta J. onsite.

10:35 collect sample SAEE-SB0012-0010.0-20220214. for PCBs

10:40 collect sample SAEE-SB0012-0011.0-TS 20220214

1045 collect sample SAEE-SB0012-0019.0-TS 20220214. for PCBs.

Place sample's in a cooler on ice.

Drillers setting up @ SB0362

collecting samples 5-10'

1053 SAEE-SB0362.0-0006.0-20220214

Rite in the Rain

Location PRL 227, Loc 3 Date 2/14/22

Project / Client NASA / HSC

1209 SAEE - SB0360 - 007.0 - 20220214
1211 SAEE - SB0360 - 008.0 - 20220214
1213 SAEE. SB0360 - 009.0 - 20220214
1215 SAEE SB0360 0010.0 20220214.
Hold 9 & 10' samples. will analyze others.
Drillers setup over SB0326.
hand Auger 5', collect SB 5-10'
Same lithology as SB362.
1220 SAEE SB0326 - 006.0 - 20220214
1222 SAEE SB0326 007.0 20220214
1224 SAEE SB0326 008.0 20220214
1226 SAEE SB0326 009.0 - 20220214
1228 SAEE SB0326 0010.0 20220214
hold the 9' & 10' samples.
will run the rest for PCBs.
1230 drillers setting up over SB325.
5-9 ft same as SB362.
9-10' @ 10' hard pan
1245 SAEE - SB0325 - 006.0 - 20220214
1247 SAEE - SB0325 - 007.0 - 20220214

Location PRL 227, Loc 3 Date 2/14/22

Project / Client NASA / HSC

1249 SAEE-SB0325-008.0 - 20220214
1251 SAEE - SB0325 - 009.0 - 20220214
1253 SAEE - SB0325 : 0010.0 - 20220214
will hold 9' & 10' samples will run the others.
drillers decon their equipment.
setup over the last location SB0374.
hand auger samples
1311 SAEE - SB0374 - 0005 - 20220214
1313 SAEE - SB0374 - 001.0 - 20220214
1315 SAEE - SB0374 - 002.0 - 20220214
1317 SAEE - SB0374 - 003.0 - 20220214
1319 SAEE - SB0374 - 004.0 - 20220214.
Drillers pack up their equipment.
patch holes in the asphalt.
Load their rig onto the trailer.
HGL will decon equipment.
GPS SB0374.
13:45 off site

Rite in the Rain

HGL
HydroGeoLogic, Inc

CALIBRATION LOG

Project Name: PRL 227 Loc 03

By: William Duttenhaver

Project No.: NS1006.03.02

Page 1 of 1

Date/Time	Instrument	STD	STD CONC ppm	Meter Reading	Comments
12/14/22 06:00	YSI Pro - 3510-1368	conductivity	1.413 MS/CM	1.41	Pass
"	"	ORP	240.0 MV	239.8	Pass
"	"	PH	4	4.06	Pass
"	"	PH	7	6.94	Pass
"	"	PH	10	10.01	Pass
"	"	DO %	SAt Air	100.7	Pass
12/14/22 06:30	HACH 2100Q - 3550-1360	NTU	20	20.2	Pass
"	"	NTU	100	99.8	Pass
"	"	NTU	800	803	Pass
"	"	NTU	10	9.91	Pass

HydroGeoLogic, Inc.
Extending Expectations

SAFETY MEETING/TRAINING LOG

- ☑ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 12/14/2022 Client: NASA/KSC

Location: PRL 227 LOC 03 Job No.: NS1006.03.02

Meeting/training conducted by: William Duttenhaver

Work Activities: Groundwater Sampling

Safety / Training Topics Presented

Chemical Hazards: Preservatives

Physical Hazards: Slips, trips, falls, biologicals, heat stress

Specific Safety Topic(s): Off-Road driving

Specific Training Covered: Being aware of your surroundings

Attendees

Name Printed and Employee Number:	Signature:
William Duttenhaver	

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: SAEE PRL227a	SITE LOCATION: KSC 1214	12-14-2022
WELL NO: SAEE-MW0001	SAMPLE ID: SAEE-MW0001-010.0-2022~~1105~~ P.D	DATE: ~~11-05-2022~~ P.D.

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: 5 feet to 15 feet	STATIC DEPTH TO WATER (feet): 3.50	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X liters/foot = liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= ml + (5.3 ml/foot X 13 feet) + 200 ml = 268.9 ml

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 10	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 10	PURGING INITIATED AT: 10:40	PURGING ENDED AT: 11:30	TOTAL VOLUME PURGED (liters): 10

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (ml/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ ODOR (describe)
10:50	2.0	2.0	200	4.29	6.69	25.4	929	2.22	11.0	-116.3	clear none
10:53	.6	2.6	200	4.31	6.70	25.5	916	2.01	9.22	-125.7	"
10:56	.6	3.2	200	4.32	6.43	25.6	912	1.88	9.25	-133.9	"
10:59	.6	3.8	200	4.32	6.62	25.6	924	1.73	7.66	-139.5	"
11:02	.6	4.4	200	4.31	6.59	25.5	917	1.64	12.0	-146.7	"
11:05	.6	5.0	200	4.31	6.60	25.5	922	1.49	16.5	-148.7	"
11:08	.6	5.6	200	4.31	6.61	25.5	925	1.40	15.1	-152.3	"
11:11	.6	6.2	200	4.32	6.61	25.5	918	1.27	12.1	-154.6	"
11:14	.6	6.8	200	4.31	6.62	25.5	920	1.22	7.58	-154.8	"
11:24	2.0	8.8	200	4.31	6.63	25.4	918	1.21	6.34	-159.6	"
11:27	.6	9.4	200	4.32	6.62	25.4	920	1.22	7.15	-160.3	"

WELL CAPACITY (Liters Per Foot): **0.75"** = 0.076; **1"** = 0.151; **1.25"** = 0.227; **2"** = 0.606; **3"** = 1.401; **4"** = 2.461; **5"** = 3.861; **6"** = 5.565; **12"** = 22.258
TUBING INSIDE DIA. CAPACITY (ml./Ft.): **1/8"** = 2.271; **3/16"** = 5.300; **1/4"** = 9.842; **5/16"** = 15.142; **3/8"** = 22.712; **1/2"** = 37.854; **5/8"** = 60.567

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: William Duttenhaver	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 11:32	SAMPLING ENDED AT: 11:32
PUMP OR TUBING DEPTH IN WELL (feet): 10	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	CG	40ml	HCL	NA	NA	VOCs 8260B	APP	
	2	AG	250ml	NONE	NA	NA	P8082PCB	APP	

REMARKS:											
11:30	.6	10.0	200	4.31	6.61	25.5	919	1.21	6.40	161.8	11

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Daily Activity Report

HydroGeoLogic, Inc — Exceeding Expectations	**Daily Quality Control Report**
Date:	**12/19/2022**
Remedial Project Manager:	Deda Johansen
HGL Program Manager:	Richard Smith
HGL Construction Manager:	Brad Mitchell
HGL Field Lead:	Dustin Lupis
HGL Project Manager:	Howard Fowler
Contract No.	80KSC019D0012
Task Order No.	80KSC019F0224
Project Name:	KSC/NASA
Project No.	NS1006.03.06

Day	**S**	**M**	**T**	**W**	**TH**	**F**	**S**
		X					
Weather	Bright Sun		Clear	Overcast		Rain	Fog
			X				
Temp	Temperature (ºF)						
	Low			High			
	55			70			
Wind	Still	Moderate		High		Gust	
		X					
Humidity	Dry	Moderate		High		Rainfall	
		X					

1. List of On-Site Personnel:

1.1 List of HGL Personnel Onsite

HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours
Dustin Lupis	Scientist Leader	PRL 227a	4	0	4
Parker Duttenhaver	Field Technician	PRL 227a	4	0	4
Jason Bublitz	Senior Scientist	PRL 227a	4	0	4
TOTAL HGL PERSONNEL ONSITE		**3**	**TOTAL HOURS WORKED**		**12**

1.2 List of GOV. Personnel Onsite

Personnel Onsite	Affiliation / Position	Location	Est. Total Hours
TOTAL GOV PERSONNEL ONSITE	**0**		

1.3 Subcontractors Onsite

Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours
TOTAL SUBCONTRACTOR PERSONNEL ONSITE		**0**	**TOTAL HOURS WORKED**		

2. List of Equipment

2.1 Heavy Equipment

Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

2.2 Instrumentation & Equipment

Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used

Daily Activity Report

3. Field Activities

DFOW / ACTIVITY	S = Start C = Continuing F = Finish	Description of Work Actually Performed / Material Deliveries
Collect Soil Samples	**S/F**	Collect boundary soil samples for PRL 227a IM activities

4. Testing and Sampling Activities

4.1 Inspections Conducted and Testing Conducted

Inspection Conducted	Pass / Fail	Description of Test Performed

4.2 Sampling Conducted

Location	Sample Time	Analysis and Results Detected / Not Detected
SAEE - SB0375 - 000.5 - 20221219	**8:54**	**PCB's / Awaiting Lab Results**
SAEE - SB0375 - 001.0 - 20221219	**8:56**	
SAEE - SB0375 - 002.0 - 20221219	**9:10**	
SAEE - SB0375 - 003.0 - 20221219	**9:13**	
SAEE - SB0375 - 004.0 - 20221219	**9:26**	
SAEE - SB0376 - 000.5 - 20221219	**9:35**	
SAEE - SB0376 - 001.0 - 20221219	**9:38**	
SAEE - SB0376 - 002.0 - 20221219	**9:40**	
SAEE - SB0376 - 003.0 - 20221219	**9:42**	
SAEE - SB0376 - 004.0 - 20221219	**9:44**	
SAEE - SB0377 - 001.0 - 20221219	**9:51**	
SAEE - SB0377 - 002.0 - 20221219	**9:53**	
SAEE - SB0377 - 003.0 - 20221219	**9:57**	
SAEE - SB0378 - 003.0 - 20221219	**10:15**	
SAEE - SB0378 - 004.0 - 20221219	**10:17**	
SAEE - SB0378 - 005.0 - 20221219	**10:19**	
SAEE - SB0378 - 006.0 - 20221219	**10:23**	
SAEE - SB0378 - 007.0 - 20221219	**10:25**	
SAEE - SB0379 - 003.0 - 20221219	**10:48**	
SAEE - SB0379 - 004.0 - 20221219	**10:50**	
SAEE - SB0379 - 005.0 - 20221219	**10:52**	
SAEE - SB0379 - 006.0 - 20221219	**10:55**	
SAEE - SB0379 - 007.0 - 20221219	**10:57**	
SAEE - SB0380 - 000.5 - 20221219	**11:15**	
SAEE - SB0380 - 001.0 - 20221219	**11:18**	
SAEE - SB0380 - 002.0 - 20221219	**11:22**	
SAEE - SB0380 - 003.0 - 20221219	**11:25**	
SAEE - SB0380 - 004.0 - 20221219	**11:42**	
SAEE - SB0380 - 005.0 - 20221219	**11:48**	
SAEE - SB0380 - 006.0 - 20221219	**11:50**	
SAEE - SB0380 - 007.0 - 20221219	**11:54**	

5. Job Safety: (Report violations, instructions given, corrective action taken)

Conducted Tailgate Safety Meeting: Slips, Trips, Falls, Pinch Points, Biologicals, Hand Tools.

6. Description of Work Completed

0830 - All employees on site. Conduct TGSM. See field notes for daily activities and sample times.

1230 - Secured site. All employee's off site. Demob to CCF IDW to off load approximately four gallons of IDW Decon water into drum # - 228339. on pallet # - 225154.

Daily Activity Report

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Quality Control Representative and that the above information stated in this Daily Quality Control Report is accurate and representative of the work completed and conforms to approved Work Plan

Printed Name: Howard Fowler	**DATE: 12/19/2022**
Signature:	**12/19/2022**

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : **PAGE___1___OF___3____**

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: HGL, Inc.

Address: 2405 N. Courtney Parkway, STE 203

City: Merrit Island **State:** FL **Zip:** 32937

Project Contact: Denise Rivers **Email:** drivers@hgl.com

Phone #: 910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Dustin Lupis **Sampler 2:** William Duttenhaver

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island **State** FL

Project # NS1006.03.03

Fax #

Client Purchase Order #

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	Analytical Information P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0375-000.5-20221219	12/19/22	0854	DL	SO	1		X								X	
	SAEE-SB0375-001.0-20221219	12/19/22	0856	DL	SO	1		X								X	
	SAEE-SB0375-002.0-20221219	12/19/22	0910	DL	SO	1		X								X	
	SAEE-SB0375-003.0-20221219	12/19/22	0913	DL	SO	1		X								X	
	SAEE-SB0375-004.0-20221219	12/19/22	0926	DL	SO	2		X								X	
	SAEE-SB0376-000.5-20221219	12/19/22	0935	DL	SO	3		X								X	
	SAEE-SB0376-001.0-20221219	12/19/22	0938	DL	SO	4		X								X	
	SAEE-SB0376-002.0-20221219	12/19/22	0940	DL	SO	5		X								X	
	SAEE-SB0376-003.0-20221219	12/19/22	0942	DL	SO	6		X								X	
	SAEE-SB0376-004.0-20221219	12/19/22	0944	DL	SO	7		X								X	
	SAEE-SB0377-001.0-20221219	12/19/22	0951	DL	SO	8		X								X	
	SAEE-SB0377-002.0-20221219	12/19/22	0953	DL	SO	9		X								X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

http://www.sgs.com/en/terms-and-conditions

SGS North America Inc - Orlando

Chain of Custody

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SGS - ORLANDO JOB # : **PAGE___2___OF___3____**

SGS - ORLANDO Quote #	SKIFF #

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Project Contact: Denise Rivers **Email:** drivers@hgl.com

Phone #: 910-233-8460

Sampler(s) Name(s) (Printed)
Sampler 1: Dustin Lupis **Sampler 2:** William Duttenhaver

Project Information

Project Name: PRL 227, LOC 3 Confirmatory Sampling

Street Kennedy Space Center

City Merritt Island **State** FL

Project # NS1006.03.03

Fax #

Client Purchase Order #

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	Analytical Information P8082SOXHLETPCB SOL104	LAB USE ONLY
	SAEE-SB0377-003.0-20221219	12/19/22	0957	DL	SO	1		X								X	
	SAEE-SB0378-003.0-20221219	12/19/22	1015	DL	SO	1		X								X	
	SAEE-SB0378-004.0-20221219	12/19/22	1017	DL	SO	1		X								X	
	SAEE-SB0378-005.0-20221219	12/19/22	1019	DL	SO	1		X								X	
	SAEE-SB0378-006.0-20221219	12/19/22	1023	DL	SO	1		X								X	
	SAEE-SB0378-007.0-20221219	12/19/22	1025	DL	SO	1		X								X	
	SAEE-SB0379-003.0-20221219	12/19/22	1048	DL	SO	1		X								X	
	SAEE-SB0379-004.0-20221219	12/19/22	1050	DL	SO	1		X								X	
	SAEE-SB0379-005.0-20221219	12/19/22	1052	DL	SO	1		X								X	
	SAEE-SB0379-006.0-20221219	12/19/22	1055	DL	SO	1		X								X	
	SAEE-SB0379-007.0-20221219	12/19/22	1057	DL	SO	1		X								X	
	SAEE-SB0380-000.5-20221219	12/19/22	1115	DL	SO	1		X								X	

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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SGS - ORLANDO JOB # : **PAGE___3___OF___3____**

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Project Information

Project Name: **PRL 227, LOC 3 Confirmatory Sampling**

Street **Kennedy Space Center**

City **Merritt Island** **State** **FL**

Project # **NS1006.03.03**

Fax #

Client Purchase Order #

Analytical Informatio

Matrix Codes

DW - Drinking Water
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AIR - Air

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	P8082SOXHLETPCB SOL104											LAB USE ONLY
	SAEE-SB0380-001.0-20221219	12/19/22	1118	DL	SO	1		X								X											
	SAEE-SB0380-002.0-20221219	12/19/22	1122	DL	SO	1		X								X											
	SAEE-SB0380-003.0-20221219	12/19/22	1125	DL	SO	1		X								X											
	SAEE-SB0380-004.0-20221219	12/19/22	1142	DL	SO	1		X								X											
	SAEE-SB0380-005.0-20221219	12/19/22	1148	DL	SO	1		X								X											
	SAEE-SB0380-006.0-20221219	12/19/22	1150	DL	SO	1		X								X											
	SAEE-SB0380-007.0-20221219	12/19/22	1154	DL	SO	1		X								X											

Turnaround Time (Business days)

X **10 Day (Business)** **Approved By: / Date:**
7 Day
5 Day
3 Day *RUSH* _____
2 Day *RUSH* _____
1 Day *RUSH* _____
Other _____

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ **COMMERCIAL "A" (RESULTS ONLY)**
- ☐ **COMMERCIAL "B" (RESULTS PLUS QC)**
- ☐ **REDT1 (EPA LEVEL 3)**
- ☐ **FULLT1 (EPA LEVEL 4)**
- ☐ **EDD'S**

Comments / Remarks

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Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		2	3		4
Relinquished by/Affiliation	**Date Time:**	**Received By/Affiliation**	**Relinquished By/Affiliation**	**Date Time:**	**Received By/Affiliation**
5		6	7		8

Lab Use Only : **Cooler Temperature (s) Celsius (corrected):**_____

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HGL
HydroGeoLogic, Inc.
Exceeding Expectations

SAFETY MEETING/TRAINING LOG

- ☑ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: ___

Date/Time: 12/19/2022 Client: KSC/NASA

Location: PRL 227a SAFE Job No.: NS1006.03.06

Meeting/training conducted by: Dustin Lupis

Work Activities: Collect Soil samples

Safety / Training Topics Presented

Chemical Hazards: PCB's

Physical Hazards: Pinch points, hand-tools, biologicals, ~~COVID-19~~, slips, trips, falls

Specific Safety Topic(s): Biologicals - Biting & stinging insects

Specific Training Covered: Apply bug spray as needed.

Attendees

Name Printed and Employee Number:	Signature:
William Duttenhaver	
Dustin Lupis	
Jason Bublith	

Location SAEE - PRL227 - L063 Date 12/19/22

Project / Client NASA / KSC

NS1006.03.06

Personnel: Josun B., Parker D., Dustin L.

Weather: 60° sunny, wind 6mph S-SE.

Purpose: Collect boundary samples for PRL227 IM activities.

Equipment: Hand auger, liquinox, decon supplies, sample bottles, Ice, work trucks.

0830 - All personnel on-site. Conduct TGSM.

0845 - Begin hand augering at G location to collect samples from 0-0.5, 0.5-1, 1-2, 2-3, 3-4 Ft bgs. (SB0375)

0854 - Collect SAEE-SB0375-0005-20221219

0856 - Collect SAEE-SB0375-001.0-20221219

0910 Collect SAEE-SB0375-002.0-20221219

0913 Collect SAEE-SB0375-003.0-20221219

0926 - Collect SAEE-SB0375-004.0-20221219

Note: large and small concrete debris encountered at SAEE-SB0375 boring.

0932 - Begin hand augering at F location (SB0376) to collect samples from 0-0.5, 0.5-1, 1-2, 2-3, 3-4 ft bgs.

0935 Collect SAEE-SB0376-000.5-20221219

0938 Collect SAEE-SB0376-001.0-20221219

0940 Collect SAEE-SB0376-002.0-20221219

0942 Collect SAEE-SB0376-003.0-20221219

0944 Collect SAEE-SB0376-004.0-20221219

Location SAEE - PRL227 - L063 Date 12/19/22

Project / Client NASA / KSC

NS1006.03.06

0948 - Begin hand augering E location (SB0377) to collect samples from 0-1, 1-2, 2-3 ft bgs.

0951 - Collect SB0377-001.0-20221219

0953 - Collect SAEE-SB0377-002.0-20221219

0957 - Collect SAEE-SB0377-003.0-20221219

1000 - Begin hand augering A location (SB0378) to collect samples from 2-3', 3-4', 4-5, 5-6', 6-7'

1015 - Collect SAEE-SB0378-003.0-20221219

1017 - Collect SAEE-SB0378-004.0-20221219

1019 - Collect SAEE-SB0378-005.0-20221219

1023 - Collect SAEE-SB0378-006.0-20221219

1025 - Collect SAEE-SB0378-007.0-20221219

Note: Water table encountered at ~5ft bgs at SAEE-SB0378.

1035 - Begin hand augering at B location (SB0379) to collect samples from 2-3, 3-4, 4-5, 5-6, 6-7 ft bgs.

1048 - Collect SAEE-SB0379-003.0-20221219

1050 - Collect SAEE-SB0379-004.0-20221219

1052 - Collect SAEE-SB0379-005.0-20221219

1055 - Collect SAEE-SB0379-006.0-20221219

1057 - Collect SAEE-SB0379-007.0-20221219

Rite in the Rain

Location SAEE - PRL 227 - LOC 3 Date 12/19/22

Project / Client NASA / KSC

NS1005.03.06

note:	Water table encountered at ~6 ft bgs at SAEE-SB0379.
1100 -	Begin hand augering at 6 locations (SB0380) to collect samples fm 0-0.5, 0.5-1, 1-2, 2-3, 3-4, 4-5, 5-6, 6-7 ft bgs.
1115 -	Collect SAEE-SB0380-000.5-0-20221219
1118 -	Collect SAEE-SB0380-001.0-20221219
1122 -	Collect SAEE-SB0380-002.0-20221219
1125 -	Collect SAEE-SB0380-003.0-20221219
1142 -	Collect SAEE-SB0380-004.0-20221219
1148 -	Collect SAEE-SB0380-005.0-20221219
1150 -	Collect SAEE-SB0380-006.0-20221219
1154 -	Collect SAEE-SB0380-007.0-20221219
1210 -	Collect locations with GPS (top/cm)
1230 -	All personnel off-site for the day
1245 -	Add ~4 gallons to drum 228335 on pallet # 225154.

Location Date

Project / Client

Rite in the Rain.

Kennedy Space Center – PRL 227a LOC 3 Soil Sampling

Photograph No.: 1	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing East Date: 12/19/2022
Description: Photo of soil boring location SAEE – SB0375 (former Location G) after hitting concrete refusal at 1'-2'.		

Photograph No.: 2	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing East Date: 12/19/2022
Description: Photo of concrete refusal after the debris was removed from SAEE – SB0375 soil boring.		

Kennedy Space Center – PRL 227a LOC 3 Soil Sampling

Photograph No.: 3	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing West Date: 12/19/2022
Description: Photo of more concrete debris after removal from soil boring SAEE – SB0375.		

Photograph No.: 4	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing East Date: 12/19/2022
Description: Photo of soil boring SAEE – SB0375 after removal of concrete debris.		

Kennedy Space Center – PRL 227a LOC 3 Soil Sampling

Photograph No.: 5	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing South Date: 12/19/2022
Description: Photo of SAEE – SB0376 (Former Location F). Hand auger to 4'.		

Photograph No.: 6	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing Southwest Date: 12/19/2022
Description: Photo of soil boring SAEE – SB0377 (Former Location E) after collecting samples.		

Kennedy Space Center – PRL 227a LOC 3 Utility Locates

Photograph No.: 7	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing East Date: 12/19/2022
Description: Photo of intervals 0'-1' and 1'-2' from soil boring SAEE – SB0377.		

Photograph No.: 8	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing West Date: 12/19/2022
Description: Photo of soil boring location SAEE – SB0378 (Former Location A).		

Kennedy Space Center – PRL 227a LOC 3 Utility Locates

Photograph No.: 9	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing West Date: 12/19/2022

Description: Photo of intervals 5'-6' and 6'-7' from SAEE – SB0378. The 6'-7' interval was noticeably saturated due to the water table encountered at 5' bgs.

Photograph No.: 10	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing South Date: 12/19/2022

Description: Photo of soil boring SAEE – SB0379 (Former Location B and center right pin flag near hand auger). Collected samples from 2' to 7' bgs.

Kennedy Space Center – PRL 227a LOC 3 Utility Locates

Photograph No.: 11	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing North Date: 12/19/2022

Description: Photo of soil boring SAEE – SB0380 (Former Location C and center bottom pin flag). Collected soil samples from 0'-7' bgs.

Photograph No.: 12	Location: PRL 227a LOC 3 Photographer: Dustin Lupis	Direction: Facing East Date: 12/19/2022

Description: Photo of HGL employee collecting coordinates to soil boring SAEE – SB0377. Collected all soil sample locations, SAEE – SB0375 through SAEE – SB0380, on TOPCON survey unit.

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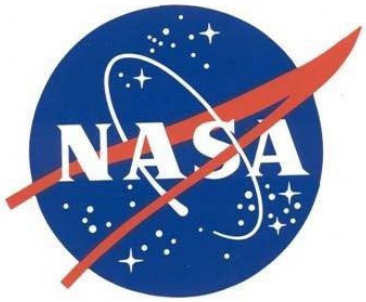
APPENDIX E

INTERIM MEASURE WORK PLAN

STAND ALONE ELECTRICAL EQUIPMENT
PRL #227a
INTERIM MEASURES WORK PLAN
KENNEDY SPACE CENTER, FLORIDA

Prepared for:



National Aeronautics and Space Administration
Kennedy Space Center, Florida

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Revision 0

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INTERIM MEASURES WORK PLAN FOR PCB-CONTAMINATED SITES

Facility Name: Stand Alone Electrical Equipment
Kennedy Space Center (KSC), Florida

PRL No.: PRL 227a

Consultant: Hydrogeologic, Inc.

NASA RPM: Ms. Deda Johansen

CAMP Date: April 30, 2023

GENERAL

1. What is the purpose of this proposed Interim Measures? Include a list of the parameter groups being addressed by the Interim Measure.

The purpose of the Stand Alone Electrical Equipment (SAEE) PRL 227a Interim Measures (IM) is to mitigate human health risk associated with polychlorinated biphenyls (PCBs) in site soils. The human health risks are quantified by summing the concentrations of the detected aroclors and comparing the concentration to the State of Florida residential direct exposure Soil Cleanup Target Level (SCTL).

2. Describe facility usage.

PRL 227a consists of a piece of stand alone electrical equipment (Load Break Switch #35) on a concrete pad. To the north of the electrical equipment is a small building (Communications Cross-Connect Terminal #11).

3. Is the facility normally occupied? Describe how site controls will be performed and how area workers will be informed of health and safety issues associated with the Interim Measures.

There are no personnel on site. The proposed area of excavation is bordered by E Avenue SE to the south, a driveway to the east, and mowed/maintained grounds to the north and west. A drainage swale is along the treeline on the west. Access to the IM areas will be demarcated and controlled during excavation operations. The managers of nearby facilities will be notified prior to any IM activities. This notification will also outline the health and safety practices that will be utilized during the IM. Any worker who may access the site on an infrequent basis for a short period of time will be informed of health and safety issues through the proper chain of command.

PRL 227a is not considered ecological habitat.

INTERIM MEASURES INFORMATION

4. List the specific contaminants being addressed by the Interim Measures, maximum facility concentrations, and the associated proposed cleanup goals and source(s) (industrial SCTL, etc.)

Contaminant of Concern	Matrix	Maximum Concentration (mg/kg)	Cleanup Goal (mg/kg)	Cleanup Goal Source
PCBs	Soil	102	0.5	State of Florida Residential SCTL

Soil containing PCBs ≥50 parts per million (ppm) will be handled separately from those with PCBs <50 ppm, and equipment contacting soils with PCBs ≥50 ppm will be decontaminated prior to use in areas where PCB concentrations are <50 ppm. Waste streams will be segregated based on soil PCB concentrations. Items with a PCB concentration of 50 parts per million (ppm) or greater are regulated for disposal under 40 CFR Part 761 (Toxic Substances Control Act).

5. Will a land use control implementation plan (LUCIP) be required following completion of the IM (i.e., will residual concentrations of any contaminant exceed applicable residential criteria)?

A LUCIP will be required for soils beneath and proximal to the east, west, and south sides of the Communications Terminal building. Restricted access did not allow for sampling beneath the building.

Clean soil will be placed along the east, west, and south sides of the building following hand excavation of affected soil to a depth of 2 feet. The clean soil and the building itself will serve as engineering controls to prevent potential exposure to PCB-containing soil remaining at depth (see Attachment).

Sidewall samples will be collected along the east and west sides of the LBS pads to confirm that no LUCs are necessary.

6. List each proposed excavation area, contaminants of concern, area of excavation, and associated depth intervals. Include figure(s) showing the horizontal extent of each proposed excavations area.

Area	Contaminant of Concern	Area of Excavation	Depth Interval (ft. bgs)	Excavation Volume	Comments
PRL 227a	PCBs	126.2 ft ^{2}	0-2.0 ft. bgs	9.3 cubic yards	Soil containing PCBs ≥50 ppm
PRL 227a	PCBs	1,871.4 ft ^{2}	0-0.5 – ft. bgs	34.7 cubic yards	
PRL 227a	PCBs	1,265.9 ft ^{2}	0-1.0 – ft. bgs	46.9 cubic yards	
PRL 227a	PCBs	3,778.3 ft ^{2}	0-2.0– ft. bgs	279.9 cubic yards	
PRL 227a	PCBs	1,146.5 ft ^{2}	0-3.0– ft. bgs	118 cubic yards	
PRL 227a	PCBs	126.2 ft ^{2}	2.0-3.0– ft. bgs	4.7 cubic yards	
PRL 227a	PCBs	318.8 ft ^{2}	0-4.0– ft. bgs	47.2 cubic yards	
PRL 227a	PCBs	208.2 ft ^{2}	0-6.0– ft. bgs	46.3 cubic yards	

ft.^{2} = square feet bgs = below ground surface cy = cubic yards

Cumulative area of excavation: 8,589.1 sq. ft. (0.20 acre)

7. Will confirmation samples be required? If so, describe. Consider the need for both vertical and horizontal extent samples and indicate sampling frequencies (number of samples per square foot, etc.).

Sidewall samples will be collected at 1-ft. vertical intervals along long sides of the LBS pad, near SB0012 on the west and SB0356 on the east. Additional confirmation samples will not be required, pending concurrence through the Coordinated Cleanup process.

8. Will shoring or dewatering be required? If so, describe.

Shoring may be required in areas of excavation greater than 3 feet immediately adjacent to the concrete transformer pad to negate the risk of compromising the structural integrity of the concrete pad. It is anticipated that shoring may be installed to no greater than 12 feet below ground surface. Additionally, excavatable flowable fill may be utilized during backfill installation operations to ensure the integrity of the transformer pad after IM completion. No dewatering is anticipated at this time. The maximum excavation depth is 6 ft. bgs.

9. Are there any special decontamination requirements? If so, describe.

Decontamination fluids must be segregated based on the level of PCBs contacted,

containerized and characterized for proper disposal.

WASTE HANDLING AND DISPOSAL

10. How will the excavated soil be stored prior to disposal?

☐ Drums ☒ Roll-offs ☒ Other (describe): Materials that contain PCBs ≥50 ppm or that contact soil with PCBs ≥50 ppm will be segregated from other waste streams at all times. Items with a PCB concentration of 50 ppm or greater are regulated for disposal under 40 CFR Part 761. The IM contractor may either direct-load waste transporters, or consolidate excavated soil in a staging area for periodic shipments to the disposal facility. If a staging area is used, it will likely be located in an area above soil that requires excavation. If a non-contaminated location is used, proper controls will be instituted for potential contaminant migration. The waste shall be manifested and then the excavated waste material will be transported to an approved and certified landfill for disposal.

11. How will miscellaneous debris and decontamination fluids be stored prior to disposal?

☒ Drums ☒ Roll-offs ☒ Other (describe): Management of decontamination fluids will be completed in accordance with KSC's Investigation Derived Waste (IDW) Management Procedures. Drums will be properly segregated based on the concentration of PCBs contacted, labeled and characterized with appropriate analytical methods in preparation for off-site disposal. Personal protective equipment (PPE) (i.e. nitrile gloves) that contacted contaminated groundwater or soil will be segregated, put in an appropriate container, and handled in accordance with KSC's IDW Management Procedures. General trash generated during the IM will be disposed of in KSC dumpsters for disposal by the KSC's normal trash removal process.

12. Are there any special waste segregation requirements? If so, describe.

Yes. Soils with PCB concentrations of 50 mg/kg or greater should be characterized separately and kept segregated from the other excavated soils at PRL 227a, as should any associated wastes such as decontamination fluids, plastic sheeting, and expendable PPE.

13. How will the waste be characterized for disposal?

Prior to IM activities, waste characterization samples will be collected. The waste characterization sample will be analyzed for total PCBs and for leachable metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) by the toxicity characteristic leaching procedure.

14. Are there any special fill characterization or compaction requirements? If so, describe.

Backfill will be analyzed to confirm that it is free from contaminants to meet regulatory requirements. In areas of excavation where excavation depths are no greater than 4 feet below ground surface, compaction of backfill material will be completed through the use of onsite equipment with no compaction testing requirements. In areas of excavation where excavation depths are greater than 4 feet below ground surface compaction of backfill will be conducted with onsite equipment in no greater than 1-foot lifts up to 4 feet below ground surface. Additionally, the IM contractor may utilize excavatable flowable fill in excavations deeper than 4 feet below ground surface.

OTHER ISSUES

15. Are there any other specific issues, including health and safety that need to be considered? If so, describe.

(a) Dust generation from site activities shall be kept at a minimum by use of water suppression.

(b) The IM contractor shall coordinate with KSC to de-energize the electrical equipment prior to excavation activities. Additionally, the IM contractor shall coordinate with affected KSC facility managers prior to conducting any utility outages.

(c) An underground utility survey utilizing GPR should be performed prior to excavation activities to identify known and unknown subsurface utilities and anomalies.

16. Work Schedule. This IM will be contracted and scheduled after the Work Plan is approved.

ATTACHMENTS

Figure 12 Proposed Excavation Areas

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