

March 27, 2017

Tim Noack, P.E.  
Principal  
Alan Plummer Associates, Inc.  
1320 W. University Drive, Suite 300  
Fort Worth, Texas 76107

**RE: Limited Subsurface Investigation Letter Report  
SAWS Mitchell Lake – Wetland Areas W and C  
Bexar County, Texas**

Dear Mr. Noack:

Adams Environmental, Inc. (AEI) appreciates the opportunity to provide you with the findings from our Limited Subsurface Investigation (LSI) of the San Antonio Water System (SAWS) Mitchell Lake Wetlands Project components comprising proposed Wetland Area W and Wetland Area C in Bexar County, Texas.

### **Background**

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This LSI was conducted on March 6-7, 2018, in response to the need for initial evaluation of common environmental (RCRA 8 metals), chlorinated pesticide, chlorinated herbicide, and agricultural constituents (total nitrogen, total phosphorus and nitrates) at the above referenced sites and for project planning purposes. This letter report summarizes the methodology and results derived from this LSI.

This LSI report was prepared by AEI for the exclusive use and benefit of Alan Plummer Associates, Inc. (APAI), its successors and assigns, and SAWS. Any use or application of this report by a third party is prohibited. This report should not be shared with any third party, and there are no third-party beneficiaries to this report. AEI does not assume responsibility for third party use of or reliance upon this report.

### **Limitations**

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This LSI was conducted with the standard of care as is normally provided by professionals involved in environmental investigations of similar size and type, within the allocated time and project budget, and within the same geographic region. AEI makes no warranties, express or implied, regarding the findings, conclusions or recommendations. Please note that laboratory analyses are prepared by accredited providers; however, AEI does not warrant the work of these third parties. The methodology and findings presented in this document were performed in accordance with the agreed upon scope between APAI and AEI and are not intended to be in full compliance with the provisions of ASTM E1903-11, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

The subsurface investigation detailed in this letter report included only surface soils to a depth of six inches below ground surface. Findings in this report were derived based upon information collected during the on-site sampling activities, and only to the depth of six inches as referenced in the agreed upon

scope. Chemical indicators of hazardous constituents may be latent, inaccessible, unstable, unobservable, nondetectable or not present at the time of services, artificially indicating that the site is “clean”. Composite sampling locations were generated randomly and may not represent whole site conditions.

## Methodology

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On March 6, 2018, AEI collected three (3) agricultural and two (2) environmental samples from Wetland Area W. AEI collected three (3) agricultural and two (2) environmental samples from Wetland Area C on March 7, 2018. Both areas are proposed permanent project locations for full-scale treatment wetlands associated with this project. Each sample was composited from seven (7) discrete samples collected at depth of 0-6 inches. Sampling locations are shown in **Figure 1**. The agricultural samples at Area W are identified as WA while the environmental samples at Area W are identified as WE in the legend. Additionally, in Area C, the agricultural samples are identified as CA and the environmental samples as CE. Each area was further divided into three smaller composite sampling location areas (i.e. WA1, WA2, WA3, WE1, WE2, etc.). Each composite location was sampled using a sharpshooter shovel, with no portion of the sample collected directly from the shovel blade. Composites were thoroughly mixed in a one-gallon bag before being transferred to laboratory-provided sample jars. Sampling equipment was cleaned with an Alconox solution and rinsed with distilled water at the start of the sampling event and between each point where samples were collected. New, clean latex gloves were used at each sample point to collect each sample to prevent cross-contamination between sample points. Surface water and groundwater sampling was not included in this sampling protocol.

Samples were placed on ice in an insulated container and shipped to San Antonio Testing Laboratory, Inc. (SATL) where they were analyzed for RCRA 8 metals, chlorinated pesticides, chlorinated herbicides, total (Kjeldahl) nitrogen, total phosphorus, and nitrates. Testing methods used to analyze collected samples included the Standard Methods for the Examination of Water and Wastewater, 22<sup>nd</sup> Edition 2012, Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983, and EPA SW Test Methods for the Examination of Solid Waste, SW-846 Update IV, February 2007.

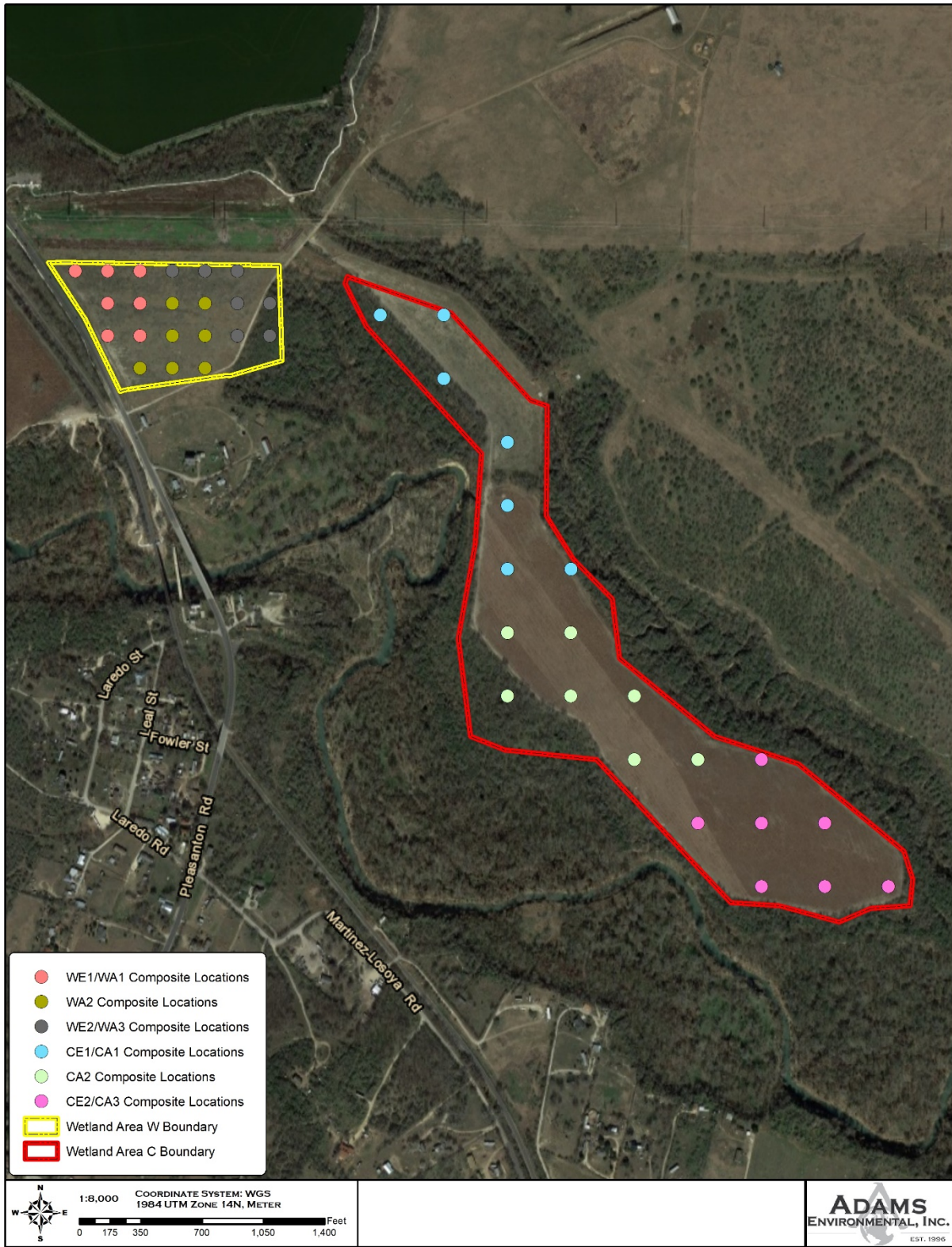


Figure 1. Locations of Wetland Areas W and C composite sampling points

**Results – Agricultural Constituents (Nitrates, Nitrogen, and Phosphorous)**

The following tables summarize the results of the analytical analysis for soil samples collected to characterize select agricultural constituents on Wetland Area W and Area C project locations. Each area was divided into three subareas for sampling purposes. For a full review of the laboratory analysis of the samples, please see the attached SATL *Mitchell Lake Wetlands Laboratory Report* (March 16, 2018).

Because the intent of the project will be to construct a wetland, it is most appropriate to provide an index to compare nitrates, total Kjeldahl nitrogen and phosphorus concentrations to typical or average occurrences of each constituent in cultivated croplands. These numbers vary widely by geographic location, soil type, etc.; however, ideal or average occurrences of each analyzed constituent were identified in resources from Texas A&M University and Oregon State University. These values are provided in Tables 1-6 below.

**Table 1:** Agricultural constituents analyzed in soils samples collected at Area W (Subgroup 1) on March 6, 2018. Results presented below correspond to the Area W Agricultural 1 (WA1) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2,3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	1.37	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	969	1,500	--
Phosphorus	EPA 3051A/ EPA 6010B	1.0	1,150	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 2:** Agricultural constituents analyzed in soils samples collected at the Area W (Subgroup 2) on March 6, 2018. Results presented below correspond to the Area W Agricultural 2 (WA2) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2,3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	0.63	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	1,120	1,500	--
Phosphorus	EPA 3051A/ EPA 6010B	1.0	1,200	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 3:** Agricultural constituents analyzed in soils samples collected at the Area W (Subgroup 3) on March 6, 2018. Results presented below correspond to the Area W Agricultural 3 (WA3) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2, 3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	1.4	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	1,270	1,500	--
Phosphorus	EPA 3051A/ EPA 6010B	1.0	1,160	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 4:** Agricultural constituents analyzed in soils samples collected at the Area C (Subgroup 1) on March 7, 2018. Results presented below correspond to the Area C Agricultural 1 (CA1) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2, 3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	1.4	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	733	1,500	--
Phosphorus	EPA 3051A/ EPA 6010B	1.0	929	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 5:** Agricultural constituents analyzed in soils samples collected at the Area C (Subgroup 2) on March 7, 2018. Results presented below correspond to the Area C Agricultural 2 (CA2) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2, 3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	1.16	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	1,040	1,500	--
Phosphorus	EPA 3050B/ EPA 6010B	1.0	952	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 6:** Agricultural constituents analyzed in soils samples collected at the Area C (Subgroup 3) on March 7, 2018. Results presented below correspond to the Area C Agricultural 3 (CA3) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Soil Fertility Recommendations (mg/kg) <sup>2, 3</sup>	TotSoil <sub>Comb</sub> (mg/kg) <sup>4</sup>
Nitrate	EPA 300.0/ EPA 300.0	0.10	0.81	40-75	130,000
Total Kjeldahl Nitrogen	EPA 3540C/ EPA 351.3	1.0	902	1,500	--
Phosphorus	EPA 3050B/ EPA 6010B	1.0	876	50	--

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas A&M University - <http://soiltesting.tamu.edu/webpages/recommendations.html>
3. Oregon State University - [file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20\(002\).pdf](file:///C:/Users/Nellis/Desktop/OSU%20Soil%20Test%20Interpretation%20(002).pdf)
4. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

### Results – RCRA 8 Metals, Chlorinated Pesticide, and Chlorinated Herbicide Constituents

The following tables summarize the results of the analytical analysis for soil samples collected to characterize select environmental (RCRA 8 metals), chlorinated pesticides, and chlorinated herbicide constituents on the Wetland Area W and Wetland Area C project locations. **Due to the large suite of constituents analyzed, only detections are presented in the tables below.** For a full review of the laboratory analysis of the samples, please see the attached SATL *Laboratory Report*.

**Table 7:** Environmental (RCRA 8 metals), Chlorinated Pesticide, and Chlorinated Herbicide constituents analyzed in soils samples collected at Area W (Subgroup 1) on March 6, 2018. Results presented below correspond to the Area W Environmental 1 (WE1) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Median Background (mg/kg) <sup>2</sup>	TotSoil <sub>Comb</sub> <sup>3</sup> (mg/kg)
Arsenic	EPA 3051A/ EPA 6010B	1.0	2.95	5.9	330
Barium	EPA 3051A/ EPA 6010B	1.0	54.7	300	120,000
Chromium	EPA 3051A/ EPA 6010B	1.0	19.4	30	75,000
Lead	EPA 3051A/ EPA 6010B	1.0	22.3	15	1,600
Silver	EPA 3051A/ EPA 6010B	0.450	0.462	--	2,300

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas Specific Soil Background Concentrations (30 TAC 350.51 (m))
3. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 8:** Environmental (RCRA 8 metals), Chlorinated Pesticide, and Chlorinated Herbicide constituents analyzed in soils samples collected at Area W (Subgroup 2) on March 6, 2018. Results presented below correspond to the Area W Environmental 2 (WE2) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Median Background (mg/kg) <sup>2</sup>	TotSoilComb <sup>3</sup> (mg/kg)
Arsenic	EPA 3051A/ EPA 6010B	1.0	3.01	5.9	330
Barium	EPA 3051A/ EPA 6010B	1.0	56.0	300	120,000
Chromium	EPA 3051A/ EPA 6010B	1.0	18.2	30	75,000
Lead	EPA 3051A/ EPA 6010B	1.0	22.2	15	1,600

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas Specific Soil Background Concentrations (30 TAC 350.51 (m))
3. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 9:** Environmental (RCRA 8 metals), Chlorinated Pesticide, and Chlorinated Herbicide constituents analyzed in soils samples collected at Area C (Subgroup 1) on March 7, 2018. Results presented below correspond to the Area C Environmental 1 (CE1) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Median Background (mg/kg) <sup>2</sup>	TotSoilComb <sup>3</sup> (mg/kg)
Arsenic	EPA 3051A/ EPA 6010B	1.0	2.85	5.9	330
Barium	EPA 3051A/ EPA 6010B	1.0	51.1	300	120,000
Chromium	EPA 3051A/ EPA 6010B	1.0	22.6	30	75,000
Mercury	EPA 7471B/ EPA 7471A	0.04	0.092	0.04	11
Lead	EPA 3051A/ EPA 6010B	1.0	21.0	15	1,600
Silver	EPA 3051A/ EPA 6010B	0.450	0.966	--	2,300

1. PQL = Practical Quantitation Limit of laboratory test method
2. Texas Specific Soil Background Concentrations (30 TAC 350.51 (m))
3. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

**Table 10:** Environmental (RCRA 8 metals), Chlorinated Pesticide, and Chlorinated Herbicide constituents analyzed in soils samples collected at Area C (Subgroup 2) on March 7, 2018. Results presented below correspond to the Area C Environmental 2 (CE2) Sample ID.

Constituent	Analysis Method (Prep/Analysis)	PQL <sup>1</sup> (mg/kg)	Result (mg/kg)	Median Background (mg/kg) <sup>2</sup>	TotSoil <sub>Comb</sub> <sup>3</sup> (mg/kg)
Arsenic	EPA 3051A/ EPA 6010B	1.0	2.93	5.9	330
Barium	EPA 3051A/ EPA 6010B	1.0	50.6	300	120,000
Chromium	EPA 3051A/ EPA 6010B	1.0	21.9	30	75,000
Mercury	EPA 7471B/ EPA 7471A	0.040	0.057	0.04	11
Lead	EPA 3051A/ EPA 6010B	1.0	21.4	15	1,600
Silver	EPA 3051A/ EPA 6010B	0.450	0.950	--	2,300

1. QL = Practical Quantitation Limit of laboratory test method
2. Texas Specific Soil Background Concentrations (30 TAC 350.51 (m))
3. TRRP Tier 1 Total Soil Combined Protective Concentration Level – 30 Acre Source Area (March 31, 2017)

No chlorinated pesticide or herbicide constituents were detected in any of the submitted samples.

### Discussion and Recommendations

The Texas Risk Reduction Program (TRRP) rule (30 TAC Chapter 350), which was adopted in September 1999, established requirements for corrective actions at sites where a release of a chemical of concern (COC) has impacted the environment. The TRRP rules address the investigation of contaminated sites, provide guidance for reporting release of COCs to the Texas Commission on Environmental Quality (TCEQ), and establish appropriate standards for response actions initiated by the discovery of contamination or a COC release. The primary purpose of the TRRP rules is to determine which releases of COCs threaten water resources (either ground or surface water) and which releases require a response action or institutional remedy. In doing so, however, the TRRP rules specifically exclude release determinations for those COCs where materials were applied or used as intended such as the lawful application of agricultural chemicals or pesticides.

Although the historical agricultural uses of Area W and Area C appear exempt from the TRRP release determination standards, the guidance established by the rule is useful in quantifying the threat to human health and safety exhibited by potential use of agricultural chemicals at the sites. To this end, the TRRP rules outline specific protective concentration levels (PCLs) for a wide range of COCs. There are three tiers of human health-based PCLs, which are based on receptor and exposure pathways in consideration of the land use classification, groundwater classification, distribution of COCs in impacted media, and presence of potential ecological receptors. Tier 1 PCLs represent the most commonly used PCLs in determining whether or not a cleanup response is warranted. Essentially, the lowest of a number of applicable human health-based PCLs (i.e. ingestion, dermal contact, inhalation, etc.) are compared to the quantity of a given COC detected during laboratory analysis of a media sample (i.e. soil, surface water, groundwater, etc.). If



the COC concentration in the media sample exceeds the lowest of the applicable PCLs, a response action in the form of a remediation event or institutional control is generally warranted.

The TRRP PCLs selected for comparison of sample results for Area W and Area C are the  $^{Tot}Soil_{Comb}$  (Total Soil Combined) for 30-acre commercial/industrial source areas (2017 PCL Tables – Table 5 Tier 1 Commercial/Industrial Total Soil Combined PCLs, Last Revised March 31, 2017). These PCLs represent the surface soil protective concentration level for the combined soil pathways of ingestion, dermal contact, inhalation of volatiles and particulates, and ingestion of aboveground or below ground vegetables. These PCLs were selected based on: 1) the property uses as commercial, non-residential properties, 2) the >0.5-acre source areas of the potential release zones, 3) the absence of any groundwater encountered during the investigation, and 4) the consideration of multiple exposure pathways from COCs in the soil (dermal contact, ingestion, particulates, etc.).

Based on a review of the TRRP Tier 1 PCL tables for 30-acre commercial source areas, none of the detected constituents in any collected sample exceeded the selected PCLs. Regarding agricultural constituents, total Kjeldahl nitrogen and nitrates appear low, and phosphorous levels appear high with respect to use for crops.

If you have any questions or require any additional information, please don't hesitate to contact AEI at (210) 858-6873. We sincerely appreciate the opportunity to work with you on this project and look forward to working with you in the future.

Sincerely,



Brian A. Gottschalk  
Senior Environmental Scientist



Lynn M. Kitchen, Ph.D.  
Principal Scientist

Attachments

March 16, 2018

**Brian Gottschalk**

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio, TX 78233

**SATL Report No.: 1803095**

**RE: Mitchell Lake Wetlands**

**Project Number: Wand C**

Dear Brian Gottschalk

SATL received 10 Sample(s) on 03/07/2018 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

There were no problems in the sample analyses unless otherwise noted. Sample data and associated QC are presented in the attached laboratory report. QC sample data were within laboratory acceptance limits except where noted on the report.

Sincerely,

For San Antonio Testing Laboratory, Inc.



Richard Hawk,  
General Manager

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



NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
 12018 Las Nubes Street  
 San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
 Project Number: Wand C  
 Project Manager: Brian Gottschalk

**Reported:**  
 03/16/18 17:11  
**Received:**  
 03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**SAMPLE SUMMARY**

Total Samples received in this work order: **10**

The following samples were requested for analysis as per the CoC. Any re-runs or re-analyses requested are identified as such.

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Sampling Method</u>	<u>Date Sampled</u>	<u>Date Received</u>
WE1, Area W Environmental 1	1803095-01	Solid	Composite	03/06/18 13:50	03/07/18 14:33
WE2, Area W Environmental 2	1803095-02	Solid	Composite	03/06/18 14:20	03/07/18 14:33
WA1, Area W Agricultural 1	1803095-03	Solid	Composite	03/06/18 13:50	03/07/18 14:33
WA2, Area W Agricultural 2	1803095-04	Solid	Composite	03/06/18 15:10	03/07/18 14:33
WA3, Area W Agricultural 3	1803095-05	Solid	Composite	03/06/18 15:10	03/07/18 14:33
CE1, Area C Environmental 1	1803095-06	Solid	Composite	03/06/18 10:30	03/07/18 14:33
CE2, Area C Environmental 2	1803095-07	Solid	Composite	03/06/18 11:30	03/07/18 14:33
CA1, Area C Agricultural 1	1803095-08	Solid	Composite	03/06/18 10:30	03/07/18 14:33
CA2, Area C Agricultural 2	1803095-09	Solid	Composite	03/06/18 12:30	03/07/18 14:33
CA3, Area C Agricultural 3	1803095-10	Solid	Composite	03/06/18 12:30	03/07/18 14:33

**Notes**

All quality control samples and checks are within acceptance limits unless otherwise indicated.  
 Test results pertain only to those items tested.  
 All samples were in good condition when received by the laboratory unless otherwise noted.

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

Reported:  
03/16/18 17:11  
Received:  
03/07/18 14:33

Additional Notes:

Report No. 1803095

Sample ID #: WE1, Area W Environmental 1

Sampling Method: Composite

Lab Sample ID #: 1803095-01

Sample Matrix: Solid

Date/Time Collected: 03/06/18 13:50

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	82.4	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
<b>Total Metals</b>									
Arsenic *	2.95	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Barium *	54.7	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Cadmium *	<0.500	mg/kg dry	0.500	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Chromium *	19.4	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Mercury *	<0.040	mg/kg dry	0.040	EPA 7471B	B811008	03/12/18 15:45	EPA 7471A	ME	
Lead *	22.3	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Selenium *	<1.00	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
Silver *	0.462	mg/kg dry	0.450	EPA 3051A	B811050	03/14/18 16:00	EPA 6010B	XE	
<b>Chlorinated Pesticides by GC/ECD</b>									
alpha-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
gamma-BHC (Lindane) *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
beta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
delta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Heptachlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Aldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Heptachlor Epoxide *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
gamma-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
alpha-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endosulfan I *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
4,4'-DDE *	<0.005	mg/kg	0.005	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Dieldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
4,4'-DDD *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endosulfan II *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
4,4'-DDT *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endrin Aldehyde *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endosulfan Sulfate *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Methoxychlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Endrin Ketone *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Toxaphene *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Chlordane *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	
Surrogate: Decachlorobiphenyl	115 %	14.8-141		EPA 3550B	B810117	03/08/18 17:54	EPA 8081A	REB	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: WE2, Area W Environmental 2

Sampling Method: Composite

Lab Sample ID #: 1803095-02

Sample Matrix: Solid

Date/Time Collected: 03/06/18 14:20

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	81.7	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
<b>Total Metals</b>									
Arsenic *	3.01	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Barium *	56.0	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Cadmium *	<0.500	mg/kg dry	0.500	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Chromium *	18.2	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Mercury *	<0.040	mg/kg dry	0.040	EPA 7471B	B811008	03/12/18 15:47	EPA 7471A	ME	
Lead *	22.2	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Selenium *	<1.00	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
Silver *	<0.450	mg/kg dry	0.450	EPA 3051A	B811050	03/14/18 16:18	EPA 6010B	XE	
<b>Chlorinated Pesticides by GC/ECD</b>									
alpha-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
gamma-BHC (Lindane) *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
beta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
delta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Heptachlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Aldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Heptachlor Epoxide *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
gamma-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
alpha-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endosulfan I *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
4,4'-DDE *	<0.005	mg/kg	0.005	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Dieldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
4,4'-DDD *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endosulfan II *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
4,4'-DDT *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endrin Aldehyde *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endosulfan Sulfate *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Methoxychlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Endrin Ketone *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Toxaphene *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Chlordane *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	
Surrogate: Decachlorobiphenyl	91 %	14.8-141		EPA 3550B	B810117	03/08/18 18:09	EPA 8081A	REB	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: WA1, Area W Agricultural 1

Sampling Method: Composite

Lab Sample ID #: 1803095-03

Sample Matrix: Solid

Date/Time Collected: 03/06/18 13:50

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	82.5	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	969	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	970	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:16	EPA 300.0	JL	
Nitrate as N *	1.37	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:16	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	1150	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:24	EPA 6010B	XE	



NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: WA2, Area W Agricultural 2

Sampling Method: Composite

Lab Sample ID #: 1803095-04

Sample Matrix: Solid

Date/Time Collected: 03/06/18 15:10

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	83.6	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	1120	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	1120	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:33	EPA 300.0	JL	
Nitrate as N *	0.63	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:33	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	1200	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:30	EPA 6010B	XE	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: WA3, Area W Agricultural 3

Sampling Method: Composite

Lab Sample ID #: 1803095-05

Sample Matrix: Solid

Date/Time Collected: 03/06/18 15:10

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	81.1	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	1270	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	1270	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:51	EPA 300.0	JL	
Nitrate as N *	1.40	mg/kg	0.10	EPA 300.0	B811099	03/14/18 10:51	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	1160	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:36	EPA 6010B	XE	



NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

Reported:  
03/16/18 17:11  
Received:  
03/07/18 14:33

Additional Notes:

Report No. 1803095

Sample ID #: CE1, Area C Environmental 1

Sampling Method: Composite

Lab Sample ID #: 1803095-06

Sample Matrix: Solid

Date/Time Collected: 03/06/18 10:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	85.3	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
<b>Total Metals</b>									
Arsenic *	2.85	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Barium *	51.1	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Cadmium *	<0.500	mg/kg dry	0.500	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Chromium *	22.6	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Mercury *	0.092	mg/kg dry	0.040	EPA 7471B	B811008	03/12/18 15:49	EPA 7471A	ME	
Lead *	21.0	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Selenium *	<1.00	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
Silver *	0.966	mg/kg dry	0.450	EPA 3051A	B811050	03/14/18 16:59	EPA 6010B	XE	
<b>Chlorinated Pesticides by GC/ECD</b>									
alpha-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
gamma-BHC (Lindane) *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
beta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
delta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Heptachlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Aldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Heptachlor Epoxide *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
gamma-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
alpha-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endosulfan I *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
4,4'-DDE *	<0.005	mg/kg	0.005	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Dieldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
4,4'-DDD *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endosulfan II *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
4,4'-DDT *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endrin Aldehyde *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endosulfan Sulfate *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Methoxychlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Endrin Ketone *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Toxaphene *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Chlordane *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	
Surrogate: Decachlorobiphenyl	127 %	14.8-141		EPA 3550B	B810117	03/08/18 18:24	EPA 8081A	REB	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: CE2, Area C Environmental 2

Sampling Method: Composite

Lab Sample ID #: 1803095-07

Sample Matrix: Solid

Date/Time Collected: 03/06/18 11:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	84.7	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
<b>Total Metals</b>									
Arsenic *	2.93	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Barium *	50.6	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Cadmium *	<0.500	mg/kg dry	0.500	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Chromium *	21.9	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Mercury *	0.057	mg/kg dry	0.040	EPA 7471B	B811008	03/12/18 15:51	EPA 7471A	ME	
Lead *	21.4	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Selenium *	<1.00	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
Silver *	0.950	mg/kg dry	0.450	EPA 3051A	B811050	03/14/18 17:05	EPA 6010B	XE	
<b>Chlorinated Pesticides by GC/ECD</b>									
alpha-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
gamma-BHC (Lindane) *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
beta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
delta-BHC *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Heptachlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Aldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Heptachlor Epoxide *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
gamma-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
alpha-Chlordane *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endosulfan I *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
4,4'-DDE *	<0.005	mg/kg	0.005	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Dieldrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endrin *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
4,4'-DDD *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endosulfan II *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
4,4'-DDT *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endrin Aldehyde *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endosulfan Sulfate *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Methoxychlor *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Endrin Ketone *	<0.002	mg/kg	0.002	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Toxaphene *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Chlordane *	<0.05	mg/kg	0.05	EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	
Surrogate: Decachlorobiphenyl	114 %	14.8-141		EPA 3550B	B810117	03/08/18 18:39	EPA 8081A	REB	



NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**Sample ID #: CA1, Area C Agricultural 1**

**Sampling Method: Composite**

**Lab Sample ID #: 1803095-08**

**Sample Matrix: Solid**

**Date/Time Collected: 03/06/18 10:30**

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	85.5	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	733	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	734	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:08	EPA 300.0	JL	
Nitrate as N *	1.40	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:08	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	929	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:11	EPA 6010B	XE	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
 12018 Las Nubes Street  
 San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
 Project Number: Wand C  
 Project Manager: Brian Gottschalk

**Reported:**  
 03/16/18 17:11  
**Received:**  
 03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: CA2, Area C Agricultural 2

Sampling Method: Composite

Lab Sample ID #: 1803095-09

Sample Matrix: Solid

Date/Time Collected: 03/06/18 12:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	86.9	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	1040	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	1040	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:25	EPA 300.0	JL	
Nitrate as N *	1.16	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:25	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	952	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:17	EPA 6010B	XE	

NELAC Cert. No.: T104704360-17-17

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12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

Sample ID #: CA3, Area C Agricultural 3

Sampling Method: Composite

Lab Sample ID #: 1803095-10

Sample Matrix: Solid

Date/Time Collected: 03/06/18 12:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
<b>General Chemistry</b>									
% Solids	85.4	% by Wt.	1.00	EPA 3540C	B811055	03/13/18 15:57	EPA 3540C	ME	
Total Kjeldahl Nitrogen	902	mg/kg	1.00		B811138	03/16/18 10:42	EPA 351.3	JL	
Total Nitrogen	903	mg/kg	1.20	[CALC]	[CALC]	03/16/18 10:42	CALC	JL	
<b>Anions by Ion Chromatography</b>									
Nitrite as N *	<0.10	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:43	EPA 300.0	JL	
Nitrate as N *	0.81	mg/kg	0.10	EPA 300.0	B811099	03/14/18 11:43	EPA 300.0	JL	
<b>Total Metals</b>									
Phosphorus *	876	mg/kg dry	1.00	EPA 3051A	B811050	03/14/18 17:23	EPA 6010B	XE	

NELAC Cert. No.: T104704360-17-17

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San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
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Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
<b>Batch B811138 - NO PREP</b>									
<b>Blank (B811138-BLK1)</b>				Prepared: 03/15/18 09:44 Analyzed: 03/16/18 10:42					
Total Kjeldahl Nitrogen	<1.00	1.00	mg/kg						
<b>LCS (B811138-BS1)</b>				Prepared: 03/15/18 09:44 Analyzed: 03/16/18 10:42					
Total Kjeldahl Nitrogen	196	1.00	mg/kg	200	98	80-120			
<b>LCS Dup (B811138-BSD1)</b>				Prepared: 03/15/18 09:44 Analyzed: 03/16/18 10:42					
Total Kjeldahl Nitrogen	196	1.00	mg/kg	200	98	80-120	0	20	
<b>Duplicate (B811138-DUP1)</b>				Source: 1803095-03 Prepared: 03/15/18 09:44 Analyzed: 03/16/18 10:42					
Total Kjeldahl Nitrogen	860	1.00	mg/kg	969			12	20	
<b>Matrix Spike (B811138-MS1)</b>				Source: 1803095-03 Prepared: 03/15/18 09:44 Analyzed: 03/16/18 10:42					
Total Kjeldahl Nitrogen	1160	1.00	mg/kg	200	969	96	80-120		

**Anions by Ion Chromatography - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
<b>Batch B811099 - EPA 300.0</b>									
<b>Blank (B811099-BLK1)</b>				Prepared: 03/13/18 17:00 Analyzed: 03/14/18 09:24					
Nitrite as N	<0.10	0.10	mg/kg						
Nitrate as N	<0.10	0.10	mg/kg						
<b>LCS (B811099-BS1)</b>				Prepared: 03/13/18 17:00 Analyzed: 03/14/18 09:41					
Nitrite as N	46.2	0.10	mg/kg	50.0	92	90-110			
Nitrate as N	54.9	0.10	mg/kg	50.0	110	90-110			
<b>LCS Dup (B811099-BSD1)</b>				Prepared: 03/13/18 17:00 Analyzed: 03/14/18 09:59					
Nitrite as N	46.2	0.10	mg/kg	50.0	92	90-110	0.06	30	
Nitrate as N	54.7	0.10	mg/kg	50.0	109	90-110	0.3	30	
<b>Duplicate (B811099-DUP1)</b>				Source: 1803095-10 Prepared: 03/13/18 17:00 Analyzed: 03/14/18 12:00					
Nitrite as N	<0.10	0.10	mg/kg	<0.10				20	
Nitrate as N	0.768	0.10	mg/kg	0.808			5	20	
<b>Matrix Spike (B811099-MS1)</b>				Source: 1803095-10 Prepared: 03/13/18 17:00 Analyzed: 03/14/18 12:35					
Nitrite as N	49.2	0.10	mg/kg	50.0	<0.10	98	90-110		

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12018 Las Nubes Street  
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03/16/18 17:11  
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03/07/18 14:33

Additional Notes:

Report No. 1803095

Anions by Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B811099 - EPA 300.0

Matrix Spike (B811099-MS1)

Source: 1803095-10

Prepared: 03/13/18 17:00 Analyzed: 03/14/18 12:35

Nitrate as N	59.7	0.10	mg/kg	50.0	0.808	118	90-110		M
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Total Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B811008 - EPA 7471B

Blank (B811008-BLK1)

Prepared: 03/12/18 10:00 Analyzed: 03/12/18 14:27

Mercury	<0.040	0.040	mg/kg wet						
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LCS (B811008-BS1)

Prepared: 03/12/18 10:00 Analyzed: 03/12/18 14:29

Mercury	0.880	0.040	mg/kg wet	0.833		106	85-115		
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LCS Dup (B811008-BSD1)

Prepared: 03/12/18 10:00 Analyzed: 03/12/18 14:31

Mercury	0.852	0.040	mg/kg wet	0.833		102	85-115	3	25
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Matrix Spike (B811008-MS1)

Source: 1803084-01

Prepared: 03/12/18 10:00 Analyzed: 03/12/18 14:35

Mercury	1.01	0.040	mg/kg dry	0.981	<0.040	103	75-125		
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Matrix Spike Dup (B811008-MSD1)

Source: 1803084-01

Prepared: 03/12/18 10:00 Analyzed: 03/12/18 14:37

Mercury	1.10	0.040	mg/kg dry	1.04	<0.040	106	75-125	9	25
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Batch B811050 - EPA 3051A

Blank (B811050-BLK1)

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 15:43

Arsenic	<1.00	1.00	mg/kg wet						
Barium	<1.00	1.00	mg/kg wet						
Cadmium	<0.500	0.500	mg/kg wet						
Chromium	<1.00	1.00	mg/kg wet						
Lead	<1.00	1.00	mg/kg wet						
Phosphorus	<1.00	1.00	mg/kg wet						
Selenium	<1.00	1.00	mg/kg wet						
Silver	<0.450	0.450	mg/kg wet						

LCS (B811050-BS1)

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 15:49

Arsenic	91.6	1.00	mg/kg wet	100		92	80-120		
Barium	93.0	1.00	mg/kg wet	100		93	80-120		

NELAC Cert. No.: T104704360-17-17

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Reported:  
03/16/18 17:11  
Received:  
03/07/18 14:33

Additional Notes:

Report No. 1803095

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B811050 - EPA 3051A**

**LCS (B811050-BS1)**

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 15:49

Cadmium	89.4	0.500	mg/kg wet	100		89	80-120		
Chromium	89.6	1.00	mg/kg wet	100		90	80-120		
Lead	87.2	1.00	mg/kg wet	100		87	80-120		
Phosphorus	88.4	1.00	mg/kg wet	100		88	80-120		
Selenium	89.9	1.00	mg/kg wet	100		90	80-120		
Silver	48.7	0.450	mg/kg wet	50.0		97	80-120		

**LCS Dup (B811050-BSD1)**

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 15:54

Arsenic	93.0	1.00	mg/kg wet	100		93	80-120	2	30
Barium	93.4	1.00	mg/kg wet	100		93	80-120	0.5	30
Cadmium	90.8	0.500	mg/kg wet	100		91	80-120	1	30
Chromium	91.0	1.00	mg/kg wet	100		91	80-120	2	30
Lead	88.0	1.00	mg/kg wet	100		88	80-120	1	30
Phosphorus	88.9	1.00	mg/kg wet	100		89	80-120	0.6	20
Selenium	90.6	1.00	mg/kg wet	100		91	80-120	0.8	30
Silver	49.5	0.450	mg/kg wet	50.0		99	80-120	2	30

**Matrix Spike (B811050-MS1)**

Source: 1803095-01

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 16:06

Arsenic	102	1.00	mg/kg dry	119	2.95	83	75-125		
Barium	164	1.00	mg/kg dry	119	54.7	92	75-125		
Cadmium	95.8	0.500	mg/kg dry	119	0.361	80	75-125		
Chromium	103	1.00	mg/kg dry	119	19.4	70	75-125		M
Lead	135	1.00	mg/kg dry	119	22.3	94	75-125		
Phosphorus	1280	1.00	mg/kg dry	119	1190	78	75-125		
Selenium	92.3	1.00	mg/kg dry	119	<1.00	78	75-125		
Silver	55.0	0.450	mg/kg dry	59.5	0.462	92	75-125		

**Matrix Spike Dup (B811050-MSD1)**

Source: 1803095-01

Prepared: 03/13/18 10:30 Analyzed: 03/14/18 16:12

Arsenic	101	1.00	mg/kg dry	119	2.95	82	75-125	0.8	30
Barium	162	1.00	mg/kg dry	119	54.7	90	75-125	1	30
Cadmium	95.1	0.500	mg/kg dry	119	0.361	80	75-125	0.7	30
Chromium	103	1.00	mg/kg dry	119	19.4	70	75-125	0.5	30
Lead	132	1.00	mg/kg dry	119	22.3	92	75-125	2	30
Phosphorus	1260	1.00	mg/kg dry	119	1190	63	75-125	1	20
Selenium	92.9	1.00	mg/kg dry	119	<1.00	78	75-125	0.6	30
Silver	55.3	0.450	mg/kg dry	59.5	0.462	92	75-125	0.5	30



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**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**Chlorinated Pesticides by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B810117 - EPA 3550B**

**Blank (B810117-BLK1)** Prepared: 03/08/18 08:45 Analyzed: 03/08/18 16:07

alpha-BHC	<0.002	0.002	mg/kg						
gamma-BHC (Lindane)	<0.002	0.002	mg/kg						
beta-BHC	<0.002	0.002	mg/kg						
delta-BHC	<0.002	0.002	mg/kg						
Heptachlor	<0.002	0.002	mg/kg						
Aldrin	<0.002	0.002	mg/kg						
Heptachlor Epoxide	<0.002	0.002	mg/kg						
gamma-Chlordane	<0.002	0.002	mg/kg						
alpha-Chlordane	<0.002	0.002	mg/kg						
Endosulfan I	<0.002	0.002	mg/kg						
4,4'-DDE	<0.005	0.005	mg/kg						
Dieldrin	<0.002	0.002	mg/kg						
Endrin	<0.002	0.002	mg/kg						
4,4'-DDD	<0.002	0.002	mg/kg						
Endosulfan II	<0.002	0.002	mg/kg						
4,4'-DDT	<0.002	0.002	mg/kg						
Endrin Aldehyde	<0.002	0.002	mg/kg						
Endosulfan Sulfate	<0.002	0.002	mg/kg						
Methoxychlor	<0.002	0.002	mg/kg						
Endrin Ketone	<0.002	0.002	mg/kg						
Toxaphene	<0.05	0.05	mg/kg						
Chlordane	<0.05	0.05	mg/kg						

Surrogate: Decachlorobiphenyl 0.0322 mg/kg 0.0333 97 14.8-141

**LCS (B810117-BS1)**

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 16:23

alpha-BHC	0.0318	0.002	mg/kg	0.0333	95	52.5-127
gamma-BHC (Lindane)	0.0323	0.002	mg/kg	0.0333	97	53.3-139
beta-BHC	0.0409	0.002	mg/kg	0.0333	123	52.7-132
delta-BHC	0.0257	0.002	mg/kg	0.0333	77	50.6-139
Heptachlor	0.0327	0.002	mg/kg	0.0333	98	44.5-148
Aldrin	0.0313	0.002	mg/kg	0.0333	94	56.3-129
Heptachlor Epoxide	0.0303	0.002	mg/kg	0.0333	91	58.9-129
gamma-Chlordane	0.0311	0.002	mg/kg	0.0333	93	59.6-125
alpha-Chlordane	0.0329	0.002	mg/kg	0.0333	99	57.7-130
Endosulfan I	0.0292	0.002	mg/kg	0.0333	88	59-122
4,4'-DDE	0.0328	0.005	mg/kg	0.0333	98	60.8-130
Dieldrin	0.0314	0.002	mg/kg	0.0333	94	55.2-136
Endrin	0.0334	0.002	mg/kg	0.0333	100	67.9-149
4,4'-DDD	0.0350	0.002	mg/kg	0.0333	105	58.2-137

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03/16/18 17:11  
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Additional Notes:

Report No. 1803095

Chlorinated Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B810117 - EPA 3550B

LCS (B810117-BS1)

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 16:23

Endosulfan II	0.0223	0.002	mg/kg	0.0333	67	57.6-133		
4,4'-DDT	0.0322	0.002	mg/kg	0.0333	97	55.6-135		
Endrin Aldehyde	0.0229	0.002	mg/kg	0.0333	69	50-138		
Endosulfan Sulfate	0.0270	0.002	mg/kg	0.0333	81	55.9-156		
Methoxychlor	0.0309	0.002	mg/kg	0.0333	93	50.9-171		
Endrin Ketone	0.0241	0.002	mg/kg	0.0333	72	48.7-153		
Surrogate: Decachlorobiphenyl	0.0317		mg/kg	0.0333	95	44-153		

LCS Dup (B810117-BSD1)

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 16:38

alpha-BHC	0.0329	0.002	mg/kg	0.0333	99	52.5-127	3	17.2	
gamma-BHC (Lindane)	0.0337	0.002	mg/kg	0.0333	101	53.3-139	4	16	
beta-BHC	0.0387	0.002	mg/kg	0.0333	116	52.7-132	5	9.22	
delta-BHC	0.0273	0.002	mg/kg	0.0333	82	50.6-139	6	8.76	
Heptachlor	0.0344	0.002	mg/kg	0.0333	103	44.5-148	5	8.25	
Aldrin	0.0329	0.002	mg/kg	0.0333	99	56.3-129	5	9.34	
Heptachlor Epoxide	0.0323	0.002	mg/kg	0.0333	97	58.9-129	7	10.7	
gamma-Chlordane	0.0330	0.002	mg/kg	0.0333	99	59.6-125	6	10.6	
alpha-Chlordane	0.0354	0.002	mg/kg	0.0333	106	57.7-130	7	9.89	
Endosulfan I	0.0322	0.002	mg/kg	0.0333	97	59-122	10	13.7	
4,4'-DDE	0.0356	0.005	mg/kg	0.0333	107	60.8-130	8	20.8	
Dieldrin	0.0325	0.002	mg/kg	0.0333	97	55.2-136	4	7.76	
Endrin	0.0362	0.002	mg/kg	0.0333	109	67.9-149	8	8.34	
4,4'-DDD	0.0379	0.002	mg/kg	0.0333	114	58.2-137	8	8.96	
Endosulfan II	0.0276	0.002	mg/kg	0.0333	83	57.6-133	21	8.38	S
4,4'-DDT	0.0361	0.002	mg/kg	0.0333	108	55.6-135	12	7.5	S
Endrin Aldehyde	0.0278	0.002	mg/kg	0.0333	83	50-138	20	8.96	S
Endosulfan Sulfate	0.0329	0.002	mg/kg	0.0333	99	55.9-156	20	19.5	S
Methoxychlor	0.0363	0.002	mg/kg	0.0333	109	50.9-171	16	10.2	S
Endrin Ketone	0.0299	0.002	mg/kg	0.0333	90	48.7-153	21	8.18	S
Surrogate: Decachlorobiphenyl	0.0400		mg/kg	0.0333	120	44-153			

Matrix Spike (B810117-MS1)

Source: 1803007-01

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 17:24

alpha-BHC	0.112	0.002	mg/kg	0.100	<0.002	112	35-114	
gamma-BHC (Lindane)	0.114	0.002	mg/kg	0.100	<0.002	114	35.6-125	
beta-BHC	0.130	0.002	mg/kg	0.100	<0.002	130	37.1-119	M
delta-BHC	0.0912	0.002	mg/kg	0.100	<0.002	91	36.2-127	
Heptachlor	0.109	0.002	mg/kg	0.100	<0.002	109	30.1-132	

NELAC Cert. No.: T104704360-17-17

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Reported:  
03/16/18 17:11  
Received:  
03/07/18 14:33

Additional Notes:

Report No. 1803095

Chlorinated Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B810117 - EPA 3550B

Matrix Spike (B810117-MS1)

Source: 1803007-01

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 17:24

Aldrin	0.112	0.002	mg/kg	0.100	<0.002	112	32-124		
Heptachlor Epoxide	0.110	0.002	mg/kg	0.100	<0.002	110	37.4-128		
gamma-Chlordane	0.162	0.002	mg/kg	0.100	<0.002	162	45.3-106		M
alpha-Chlordane	0.118	0.002	mg/kg	0.100	<0.002	118	38.2-116		M
Endosulfan I	0.104	0.002	mg/kg	0.100	<0.002	104	20.8-135		
4,4'-DDE	0.114	0.005	mg/kg	0.100	<0.005	114	37-121		
Dieldrin	0.102	0.002	mg/kg	0.100	<0.002	102	36.1-128		
Endrin	0.118	0.002	mg/kg	0.100	<0.002	118	39.9-156		
4,4'-DDD	0.120	0.002	mg/kg	0.100	<0.002	120	16.7-155		
Endosulfan II	0.0878	0.002	mg/kg	0.100	<0.002	88	28.5-128		
4,4'-DDT	0.113	0.002	mg/kg	0.100	<0.002	113	12.3-149		
Endrin Aldehyde	0.0903	0.002	mg/kg	0.100	<0.002	90	31.4-140		
Endosulfan Sulfate	0.0856	0.002	mg/kg	0.100	<0.002	86	37-142		
Methoxychlor	0.0922	0.002	mg/kg	0.100	<0.002	92	24.4-167		
Endrin Ketone	0.0798	0.002	mg/kg	0.100	<0.002	80	32.7-135		

Surrogate: Decachlorobiphenyl 0.119 mg/kg 0.100 119 14.8-141

Matrix Spike Dup (B810117-MSD1)

Source: 1803007-01

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 17:39

alpha-BHC	0.120	0.002	mg/kg	0.100	<0.002	120	35-114	8	38.7	M
gamma-BHC (Lindane)	0.123	0.002	mg/kg	0.100	<0.002	123	35.6-125	8	44	
beta-BHC	0.143	0.002	mg/kg	0.100	<0.002	143	37.1-119	9	38.6	M
delta-BHC	0.0985	0.002	mg/kg	0.100	<0.002	99	36.2-127	8	51.2	
Heptachlor	0.131	0.002	mg/kg	0.100	<0.002	131	30.1-132	19	43	
Aldrin	0.137	0.002	mg/kg	0.100	<0.002	137	32-124	20	49.5	M
Heptachlor Epoxide	0.132	0.002	mg/kg	0.100	<0.002	132	37.4-128	18	39.9	M
gamma-Chlordane	0.132	0.002	mg/kg	0.100	<0.002	132	45.3-106	21	52.3	M
alpha-Chlordane	0.137	0.002	mg/kg	0.100	<0.002	137	38.2-116	15	38.1	M
Endosulfan I	0.123	0.002	mg/kg	0.100	<0.002	123	20.8-135	17	51.8	
4,4'-DDE	0.139	0.005	mg/kg	0.100	<0.005	139	37-121	20	53.2	M
Dieldrin	0.123	0.002	mg/kg	0.100	<0.002	123	36.1-128	19	42.1	
Endrin	0.138	0.002	mg/kg	0.100	<0.002	138	39.9-156	15	39	
4,4'-DDD	0.145	0.002	mg/kg	0.100	<0.002	145	16.7-155	19	44.6	
Endosulfan II	0.101	0.002	mg/kg	0.100	<0.002	101	28.5-128	14	34	
4,4'-DDT	0.133	0.002	mg/kg	0.100	<0.002	133	12.3-149	16	58.7	
Endrin Aldehyde	0.105	0.002	mg/kg	0.100	<0.002	105	31.4-140	15	36.9	
Endosulfan Sulfate	0.103	0.002	mg/kg	0.100	<0.002	103	37-142	18	45.2	
Methoxychlor	0.103	0.002	mg/kg	0.100	<0.002	103	24.4-167	12	69.4	

NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**Chlorinated Pesticides by GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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**Batch B810117 - EPA 3550B**

**Matrix Spike Dup (B810117-MSD1)**

Source: 1803007-01

Prepared: 03/08/18 08:45 Analyzed: 03/08/18 17:39

Endrin Ketone	0.0881	0.002	mg/kg	0.100	<0.002	88	32.7-135	10	44
Surrogate: Decachlorobiphenyl	0.131		mg/kg	0.100		131	14.8-141		

**DEFINITIONS**

- \* TNI / NELAC accredited analyte
- PQL Practical Quantitation Limit
- MCL Maximum Contaminant Level
- mg/Kg Milligrams per Kilogram (Parts per Million)
- mg/L Milligrams per Liter (Parts per Million)
- PPM Parts per Million
- L LCS recovery is outside QC acceptance limits, the results may have a slight bias.
- M MS recovery is outside QC limits, the results may have a slight bias due to possible matrix interferences.
- RMCCCL Recommended Maximum Concentration of Contaminants Level
- Surr L Surrogate recovery is outside QC limits due to matrix interferences.
- Surr H Surrogate recovery is high due to contribution from hydrocarbon interferences.
- µR/hr MicroRoentgens per hour (Measure of Radioactivity Level)
- HT Sample received past holdtime
- IC Improper Container
- IT Improper Temperature
- V Inssufficient Volume
- B Sample collected in Bulk
- S RPD is outside QC limits. This may be due to possible matrix interferences in Matrix spike samples.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.

- Standard Methods for the Examination of Water and Wastewater, 21st Edition 2005
- Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
- EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996



NELAC Cert. No.: T104704360-17-17

Adams Environmental, Inc  
12018 Las Nubes Street  
San Antonio TX, 78233

Project: Mitchell Lake Wetlands  
Project Number: Wand C  
Project Manager: Brian Gottschalk

**Reported:**  
03/16/18 17:11  
**Received:**  
03/07/18 14:33

Additional Notes:

**Report No. 1803095**

**Subcontracted Analyses**

Subcontractor Lab	Lab Number	Analysis
ALS Environmental	1803095-01	Herbicides
ALS Environmental	1803095-02	Herbicides
ALS Environmental	1803095-06	Herbicides
ALS Environmental	1803095-07	Herbicides

Aimee Landon For Marcela Gracia Hawk, President For

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



Richard Hawk, General Manager

**CHAIN-OF-CUSTODY RECORD**

**REPORT TO:** COMPANY: ADAMS ENVIRONMENTAL, INC. INVOICE TO: COMPANY: SAME P.O. #  
 ADDRESS: 12018 LAS NUBES ST ADDRESS: SAME REPORT NUMBER: 1803095  
 CITY: SAN ANTONIO STATE: TX ZIP: 78238 CITY: SAME STATE: SAME ZIP: 78232  
 ATTN: BREAN GOTTSCALK PHONE # 210-858-6873 ATTN: SARLE KEECHEN PHONE # SAME E-MAIL: bigsttschalk@adamsenv.com  
 REQUESTED TURNAROUND TIME: 7-10 Days REG: +25% 3 Days +50% 4 Days +75% 5 Days +100% Next Day +150%  
 IN BUSINESS DAYS & SURCHARGE } SAME DAY WHEN POSSIBLE +300%

THE TURNAROUND TIME FOR SAMPLES RECEIVED AFTER 3:00 PM SHALL BEGIN AT 8:00 AM THE FOLLOWING BUSINESS DAY

HARDCOPY  YES  NO / FOR STATE COMPLIANCE  YES  NO SPECIAL REQ.:  
 TEMP. I.R. GUN # 6 SAMPLE TEMPERATURE WITHIN COMPLIANCE (> 0°C ≤ 6°C)  YES  NO INITIAL TO AUTHORIZE BULK ANALYSIS  
 TEMP. ON REPT. 3.0°C COND. OF SAMPLE Hand TRRP 13  YES  NO LPST PCLS

SAMPLE NUMBER	DATE	TIME	MATRIX	SAMPLING METHOD	IDENTIFICATION		ANALYSIS REQUESTED		REMARKS
					NON-SAMPLE CONTAINERS	CONC. OF SAMPLE	PCB / 608 / 608A / 608B / 608C / 608D	PCB / 608 / 608A / 608B / 608C / 608D	
WE1	3-6-18	11:50P	AREA W ENVIRONMENTAL	2	8oz	4oz			
WE2		2:30P	"	2					
WA1		1:50P	AREA W AGRICULTURAL	1					
WA2		3:10P	"	2					
WA3		3:10P	"	3					
CE1	3-7-18	10:30A	AREA C ENVIRONMENTAL	1					
CE2		11:30A	"	2					
CA1		10:30A	AREA C AGRICULTURAL	1					
CA2		10:30th	"	2					
CA3		12:30P	"	3					

RECEIVED  
 MAR 07 2018

RELINQUISHED BY (SIGNATURE) [Signature] DATE / TIME 3-7-18 3:30P RECEIVED BY (SIGNATURE) [Signature] DATE / TIME 11:27  
 RELINQUISHED BY (PRINT NAME) Brean Gottscalk RECEIVED BY (PRINT NAME) Stacy Landon  
 RELINQUISHED BY (SIGNATURE) [Signature] DATE / TIME 3-7-18 3:30P RECEIVED BY (SIGNATURE) [Signature] DATE / TIME 11:27  
 RELINQUISHED BY (PRINT NAME) Brean Gottscalk RECEIVED BY (PRINT NAME) Stacy Landon

SUBCONTRACTED  YES  NO  
 CUSTODY SEAL IN PLACE & INTACT  YES  NO

**Sample Receipt Checklist**

Client: Adams Env. Report Number: 1803095  
 Project Name: \_\_\_\_\_ Date Received: 3/7/18  
 Shipped via:  FedEx  UPS  Lonestar  Hand Delivered  DHL  SATL  Other Date Due: 3/16/18  
 Rush:  Specify:  3-5  2  1

**Items to be checked upon Receipt: [Yes, No, N/A]**

1. Custody Seals present?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	NA	If NA-reason:	
2. Custody Seals intact?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
3. Air Bill included in folder, if received?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
4. Is COC included with samples?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
5. Is COC signed and dated by client?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
6. Sample temperature: Thermal preservation between >0° - 6° C? (Samples that are delivered to the laboratory on the same day that they are collected may not meet this criterion, but are acceptable if they arrive on ice.)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	Temp: <u>3.6 °C</u>	<u>76 #6</u>
7. Samples received with ice <input checked="" type="checkbox"/> ice packs <input type="checkbox"/> other cooling <input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
8. Is the COC filled out correctly, and completely?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
9. Information on the COC matches the samples?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
10. Samples received within holding time?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
11. Samples properly labeled?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
12. Samples submitted with chemical preservation (e.g. pH adjusted, or sodium thiosulfate added for microbiological tests)	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	<u>solid</u>
13. Proper sample containers used?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
14. All samples received intact, containers not damaged or leaking?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
15. VOA vials (requesting BTEX/VOC analysis) received with no air bubbles? Bubbles acceptable on VOA vials for TPH.	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	<u>no wa vials</u>
16. Sample volume sufficient for requested analysis?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	
17. Sample amount sufficient for TCLP analysis?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	If NA-reason:	<u>not req</u>
18. Subcontracted Samples: [if Yes, complete the next section]	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	NA	If NA-reason:	

Analyses Subcontracted Out: Herbicides No. of Samples 4  
 Samples sent to: AIS Sent By: sk  
 Date samples sent: 3/7/18 Samples shipped via: UPS  
 TAT Requested: Reg. TAT  
 Tracking number [if any]: \_\_\_\_\_

Comments:

Received By: [Signature] Date: 3/7/18  
 Labeled By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Logged into LIMS By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Logged into RF By: \_\_\_\_\_ Date: \_\_\_\_\_



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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

March 16, 2018

Sairum Abburu  
San Antonio Testing Laboratory, Inc.  
1610 S. Laredo St.

San Antonio, TX 78207

Work Order: **HS18030481**

Laboratory Results for: **1803095**

Dear Sairum,

ALS Environmental received 4 sample(s) on Mar 08, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: Jumoke.Lawal  
Nicole Brown  
Senior Project Manager



**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**Work Order:** HS18030481

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18030481-01	1803095-01 WE 1 (Area W Ew1)	Solid		06-Mar-2018 13:50	08-Mar-2018 12:05	<input type="checkbox"/>
HS18030481-02	1803095-02 WE 2 (Area W Ew2)	Solid		06-Mar-2018 14:20	08-Mar-2018 12:05	<input type="checkbox"/>
HS18030481-03	1803095-06 CE 1 (Area C Ew1)	Solid		07-Mar-2018 10:30	08-Mar-2018 12:05	<input type="checkbox"/>
HS18030481-04	1803095-07 CE 2 (Area C Ew2)	Solid		07-Mar-2018 11:30	08-Mar-2018 12:05	<input type="checkbox"/>

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**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**Work Order:** HS18030481

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**CASE NARRATIVE**

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**ECD Organics by Method SW8151**

**Batch ID: 126215**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: San Antonio Testing Laboratory, Inc.  
 Project: 1803095  
 Sample ID: 1803095-01 WE 1 (Area W Ew1)  
 Collection Date: 06-Mar-2018 13:50

**ANALYTICAL REPORT**  
 WorkOrder:HS18030481  
 Lab ID:HS18030481-01  
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>CHLORINATED HERBICIDES BY SW8151A</b>	<b>Method:SW8151</b>			Prep:SW8151 / 14-Mar-2018		Analyst: STH
2,4,5-T	ND		0.0033	mg/Kg	1	15-Mar-2018 19:37
2,4,5-TP (Silvex)	ND		0.0033	mg/Kg	1	15-Mar-2018 19:37
2,4-D	ND		0.0066	mg/Kg	1	15-Mar-2018 19:37
2,4-DB	ND		0.0066	mg/Kg	1	15-Mar-2018 19:37
Dalapon	ND		0.0033	mg/Kg	1	15-Mar-2018 19:37
Dicamba	ND		0.0033	mg/Kg	1	15-Mar-2018 19:37
Dichlorprop	ND		0.0066	mg/Kg	1	15-Mar-2018 19:37
Dinoseb	ND		0.0033	mg/Kg	1	15-Mar-2018 19:37
MCPA	ND		0.66	mg/Kg	1	15-Mar-2018 19:37
MCPP	ND		0.66	mg/Kg	1	15-Mar-2018 19:37
Surr: DCAA	76.0		30-150	%REC	1	15-Mar-2018 19:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: San Antonio Testing Laboratory, Inc.  
 Project: 1803095  
 Sample ID: 1803095-02 WE 2 (Area W Ew2)  
 Collection Date: 06-Mar-2018 14:20

**ANALYTICAL REPORT**  
 WorkOrder:HS18030481  
 Lab ID:HS18030481-02  
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>CHLORINATED HERBICIDES BY SW8151A</b>		<b>Method:SW8151</b>			Prep:SW8151 / 14-Mar-2018	Analyst: STH
2,4,5-T	ND		0.0033	mg/Kg	1	15-Mar-2018 21:42
2,4,5-TP (Silvex)	ND		0.0033	mg/Kg	1	15-Mar-2018 21:42
2,4-D	ND		0.0066	mg/Kg	1	15-Mar-2018 21:42
2,4-DB	ND		0.0066	mg/Kg	1	15-Mar-2018 21:42
Dalapon	ND		0.0033	mg/Kg	1	15-Mar-2018 21:42
Dicamba	ND		0.0033	mg/Kg	1	15-Mar-2018 21:42
Dichlorprop	ND		0.0066	mg/Kg	1	15-Mar-2018 21:42
Dinoseb	ND		0.0033	mg/Kg	1	15-Mar-2018 21:42
MCPA	ND		0.66	mg/Kg	1	15-Mar-2018 21:42
MCPP	ND		0.66	mg/Kg	1	15-Mar-2018 21:42
Surr: DCAA	80.6		30-150	%REC	1	15-Mar-2018 21:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: San Antonio Testing Laboratory, Inc.  
 Project: 1803095  
 Sample ID: 1803095-06 CE 1 (Area C Ew1)  
 Collection Date: 07-Mar-2018 10:30

**ANALYTICAL REPORT**  
 WorkOrder:HS18030481  
 Lab ID:HS18030481-03  
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>CHLORINATED HERBICIDES BY SW8151A</b>		<b>Method:SW8151</b>			Prep:SW8151 / 14-Mar-2018	Analyst: STH
2,4,5-T	ND		0.0033	mg/Kg	1	15-Mar-2018 22:13
2,4,5-TP (Silvex)	ND		0.0033	mg/Kg	1	15-Mar-2018 22:13
2,4-D	ND		0.0066	mg/Kg	1	15-Mar-2018 22:13
2,4-DB	ND		0.0066	mg/Kg	1	15-Mar-2018 22:13
Dalapon	ND		0.0033	mg/Kg	1	15-Mar-2018 22:13
Dicamba	ND		0.0033	mg/Kg	1	15-Mar-2018 22:13
Dichlorprop	ND		0.0066	mg/Kg	1	15-Mar-2018 22:13
Dinoseb	ND		0.0033	mg/Kg	1	15-Mar-2018 22:13
MCPA	ND		0.66	mg/Kg	1	15-Mar-2018 22:13
MCPP	ND		0.66	mg/Kg	1	15-Mar-2018 22:13
Surr: DCAA	77.4		30-150	%REC	1	15-Mar-2018 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: San Antonio Testing Laboratory, Inc.  
 Project: 1803095  
 Sample ID: 1803095-07 CE 2 (Area C Ew2)  
 Collection Date: 07-Mar-2018 11:30

**ANALYTICAL REPORT**  
 WorkOrder:HS18030481  
 Lab ID:HS18030481-04  
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>CHLORINATED HERBICIDES BY SW8151A</b>		<b>Method:SW8151</b>		Prep:SW8151 / 14-Mar-2018		Analyst: STH
2,4,5-T	ND		0.0033	mg/Kg	1	15-Mar-2018 22:44
2,4,5-TP (Silvex)	ND		0.0033	mg/Kg	1	15-Mar-2018 22:44
2,4-D	ND		0.0066	mg/Kg	1	15-Mar-2018 22:44
2,4-DB	ND		0.0066	mg/Kg	1	15-Mar-2018 22:44
Dalapon	ND		0.0033	mg/Kg	1	15-Mar-2018 22:44
Dicamba	ND		0.0033	mg/Kg	1	15-Mar-2018 22:44
Dichlorprop	ND		0.0066	mg/Kg	1	15-Mar-2018 22:44
Dinoseb	ND		0.0033	mg/Kg	1	15-Mar-2018 22:44
MCPA	ND		0.66	mg/Kg	1	15-Mar-2018 22:44
MCPP	ND		0.66	mg/Kg	1	15-Mar-2018 22:44
Surr: DCAA	84.6		30-150	%REC	1	15-Mar-2018 22:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**WEIGHT LOG**

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**Batch ID:** 126215      **Method:** CHLORINATED HERBICIDES BY SW8151A      **Prep:** 8151PRS

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18030481-01	1	30.02	10 (mL)	0.3331
HS18030481-02	1	30.02	10 (mL)	0.3331
HS18030481-03	1	30.05	10 (mL)	0.3328
HS18030481-04	1	30.01	10 (mL)	0.3332

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
<b>Batch ID</b> 126215	<b>Test Name :</b> CHLORINATED HERBICIDES BY SW8151A		<b>Matrix:</b> Solid			
HS18030481-01	1803095-01 WE 1 (Area W Ew1)	06 Mar 2018 13:50		14 Mar 2018 13:43	15 Mar 2018 19:37	1
HS18030481-02	1803095-02 WE 2 (Area W Ew2)	06 Mar 2018 14:20		14 Mar 2018 13:43	15 Mar 2018 21:42	1
HS18030481-03	1803095-06 CE 1 (Area C Ew1)	07 Mar 2018 10:30		14 Mar 2018 13:43	15 Mar 2018 22:13	1
HS18030481-04	1803095-07 CE 2 (Area C Ew2)	07 Mar 2018 11:30		14 Mar 2018 13:43	15 Mar 2018 22:44	1



**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**QC BATCH REPORT**

<b>Batch ID: 126215</b>		<b>Instrument: ECD_9</b>		<b>Method: SW8151</b>					
<b>MBLK</b>	Sample ID: <b>MBLK-126215</b>	Units: <b>ug/Kg</b>			Analysis Date: <b>15-Mar-2018 18:34</b>				
Client ID:		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4475985</b>	PrepDate: <b>14-Mar-2018</b>	DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

2,4,5-T	ND	3.3							
2,4,5-TP (Silvex)	ND	3.3							
2,4-DB	ND	6.6							
Dinoseb	ND	3.3							
Surr: DCAA	120.7	0	166.7	0	72.4	30 - 150			

<b>MBLK</b>	Sample ID: <b>MBLK-126215</b>	Units: <b>ug/Kg</b>			Analysis Date: <b>15-Mar-2018 18:34</b>				
Client ID:		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4475971</b>	PrepDate: <b>14-Mar-2018</b>	DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

2,4,5-T	ND	3.3							
2,4,5-TP (Silvex)	ND	3.3							
2,4-D	ND	6.6							
2,4-DB	ND	6.6							
Dalapon	ND	3.3							
Dicamba	ND	3.3							
Dichlorprop	ND	6.6							
Dinoseb	ND	3.3							
MCPA	ND	660							
MCPP	ND	660							
Surr: DCAA	120.7	0	166.7	0	72.4	30 - 150			

<b>MBLK</b>	Sample ID: <b>MBLK-126215</b>	Units: <b>ug/Kg</b>			Analysis Date: <b>14-Mar-2018 21:06</b>				
Client ID:		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4474701</b>	PrepDate: <b>14-Mar-2018</b>	DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

2,4-D	ND	6.6							
Dalapon	ND	3.3							
Dicamba	ND	3.3							
Dichlorprop	ND	6.6							
MCPA	ND	660							
MCPP	ND	660							
Surr: DCAA	114.4	0	166.7	0	68.6	30 - 150			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**QC BATCH REPORT**

<b>Batch ID:</b> 126215	<b>Instrument:</b> ECD_9	<b>Method:</b> SW8151
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LCS		Sample ID: LCS-126215	Units: ug/Kg			Analysis Date: 15-Mar-2018 19:06				
Client ID:		Run ID: ECD_9_312526	SeqNo: 4475986		PrepDate: 14-Mar-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	74.07	3.3	83.33	0	88.9	50 - 150				
2,4,5-TP (Silvex)	76.24	3.3	83.33	0	91.5	50 - 150				
2,4-DB	76.06	6.6	83.33	0	91.3	40 - 150				
Dinoseb	71.79	3.3	83.33	0	86.1	40 - 150				
Surr: DCAA	140.1	0	166.7	0	84.1	30 - 150				

LCS		Sample ID: LCS-126215	Units: ug/Kg			Analysis Date: 15-Mar-2018 19:06				
Client ID:		Run ID: ECD_9_312526	SeqNo: 4475972		PrepDate: 14-Mar-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	74.07	3.3	83.33	0	88.9	50 - 150				
2,4,5-TP (Silvex)	76.24	3.3	83.33	0	91.5	50 - 150				
2,4-D	69.7	6.6	83.33	0	83.6	40 - 150				
2,4-DB	76.06	6.6	83.33	0	91.3	40 - 150				
Dalapon	64.03	3.3	83.33	0	76.8	30 - 150				
Dicamba	70.17	3.3	83.33	0	84.2	40 - 150				
Dichlorprop	72.68	6.6	83.33	0	87.2	40 - 150				
Dinoseb	71.79	3.3	83.33	0	86.1	40 - 150				
MCPA	7109	660	8333	0	85.3	40 - 150				
MCPP	7552	660	8333	0	90.6	40 - 150				
Surr: DCAA	140.1	0	166.7	0	84.1	30 - 150				

LCS		Sample ID: LCS-126215	Units: ug/Kg			Analysis Date: 14-Mar-2018 21:37				
Client ID:		Run ID: ECD_9_312526	SeqNo: 4474702		PrepDate: 14-Mar-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4-D	57.11	6.6	83.33	0	68.5	40 - 150				
Dalapon	48.52	3.3	83.33	0	58.2	30 - 150				
Dicamba	54.17	3.3	83.33	0	65.0	40 - 150				
Dichlorprop	46.66	6.6	83.33	0	56.0	40 - 150				
MCPA	4730	660	8333	0	56.8	40 - 150				
MCPP	5649	660	8333	0	67.8	40 - 150				
Surr: DCAA	91.56	0	166.7	0	54.9	30 - 150				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**QC BATCH REPORT**

Batch ID: 126215		Instrument: ECD_9		Method: SW8151						
<b>MS</b>		Sample ID: <b>HS18030481-01MS</b>		Units: <b>ug/Kg</b>		Analysis Date: <b>15-Mar-2018 20:08</b>				
Client ID: <b>1803095-01 WE 1 (Area W Ew1)</b>		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4475988</b>		PrepDate: <b>14-Mar-2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
2,4,5-T	77.89	3.3	83.17	0	93.7	50 - 150				
2,4,5-TP (Silvex)	82.07	3.3	83.17	0	98.7	50 - 150				
2,4-DB	60.99	6.6	83.17	0	73.3	40 - 150			P	
Dinoseb	81.38	3.3	83.17	0	97.9	40 - 150				
Surr: DCAA	147.2	0	166.3	0	88.5	30 - 150				
<b>MS</b>		Sample ID: <b>HS18030481-01MS</b>		Units: <b>ug/Kg</b>		Analysis Date: <b>15-Mar-2018 20:08</b>				
Client ID: <b>1803095-01 WE 1 (Area W Ew1)</b>		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4475974</b>		PrepDate: <b>14-Mar-2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
2,4,5-T	77.89	3.3	83.17	0	93.7	50 - 150				
2,4,5-TP (Silvex)	82.07	3.3	83.17	0	98.7	50 - 150				
2,4-D	73.5	6.6	83.17	0	88.4	40 - 150				
2,4-DB	60.99	6.6	83.17	0	73.3	40 - 150			P	
Dalapon	68.75	3.3	83.17	0	82.7	30 - 150				
Dicamba	78.29	3.3	83.17	0	94.1	40 - 150				
Dichlorprop	77.44	6.6	83.17	0	93.1	40 - 150				
Dinoseb	81.38	3.3	83.17	0	97.9	40 - 150				
MCPA	7505	660	8317	0	90.2	40 - 150				
MCPP	8502	660	8317	0	102	40 - 150				
Surr: DCAA	147.2	0	166.3	0	88.5	30 - 150				
<b>MS</b>		Sample ID: <b>HS18030481-01MS</b>		Units: <b>ug/Kg</b>		Analysis Date: <b>14-Mar-2018 22:39</b>				
Client ID: <b>1803095-01 WE 1 (Area W Ew1)</b>		Run ID: <b>ECD_9_312526</b>		SeqNo: <b>4474704</b>		PrepDate: <b>14-Mar-2018</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
2,4-D	49.11	6.6	83.17	0	59.0	40 - 150				
Dalapon	50.61	3.3	83.17	0	60.8	30 - 150				
Dicamba	55.92	3.3	83.17	0	67.2	40 - 150				
Dichlorprop	42.5	6.6	83.17	0	51.1	40 - 150				
MCPA	4406	660	8317	0	53.0	40 - 150				
MCPP	5413	660	8317	0	65.1	40 - 150				
Surr: DCAA	88.77	0	166.3	0	53.4	30 - 150				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**QC BATCH REPORT**

Batch ID: 126215		Instrument: ECD_9		Method: SW8151						
<b>MSD</b>		Sample ID: HS18030481-01MSD		Units: ug/Kg		Analysis Date: 15-Mar-2018 20:39				
Client ID: 1803095-01 WE 1 (Area W Ew1)		Run ID: ECD_9_312526		SeqNo: 4475975		PrepDate: 14-Mar-2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
2,4,5-T	78.88	3.3	83.08	0	94.9	50 - 150	77.89	1.26	30	
2,4,5-TP (Silvex)	83.87	3.3	83.08	0	101	50 - 150	82.07	2.17	30	
2,4-D	75.12	6.6	83.08	0	90.4	40 - 150	73.5	2.19	30	
2,4-DB	62.38	6.6	83.08	0	75.1	40 - 150	60.99	2.27	30 P	
Dalapon	70.31	3.3	83.08	0	84.6	30 - 150	68.75	2.23	30	
Dicamba	81.97	3.3	83.08	0	98.7	40 - 150	78.29	4.59	30	
Dichlorprop	79.88	6.6	83.08	0	96.1	40 - 150	77.44	3.1	30	
Dinoseb	83.13	3.3	83.08	0	100	40 - 150	81.38	2.13	30	
MCPA	7713	660	8308	0	92.8	40 - 150	7505	2.75	30	
MCPP	8747	660	8308	0	105	40 - 150	8502	2.85	30	
Surr: DCAA	154.3	0	166.2	0	92.8	30 - 150	147.2	4.66	30	

<b>MSD</b>		Sample ID: HS18030481-01MSD		Units: ug/Kg		Analysis Date: 15-Mar-2018 20:39			
Client ID: 1803095-01 WE 1 (Area W Ew1)		Run ID: ECD_9_312526		SeqNo: 4475989		PrepDate: 14-Mar-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
2,4,5-T	78.88	3.3	83.08	0	94.9	50 - 150	77.89	1.26	30
2,4,5-TP (Silvex)	83.87	3.3	83.08	0	101	50 - 150	82.07	2.17	30
2,4-DB	62.38	6.6	83.08	0	75.1	40 - 150	60.99	2.27	30 P
Dinoseb	83.13	3.3	83.08	0	100	40 - 150	81.38	2.13	30
Surr: DCAA	154.3	0	166.2	0	92.8	30 - 150	147.2	4.66	30

<b>MSD</b>		Sample ID: HS18030481-01MSD		Units: ug/Kg		Analysis Date: 14-Mar-2018 23:10			
Client ID: 1803095-01 WE 1 (Area W Ew1)		Run ID: ECD_9_312526		SeqNo: 4474705		PrepDate: 14-Mar-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
2,4-D	58.14	6.6	83.08	0	70.0	40 - 150	49.11	16.8	30
Dalapon	53.85	3.3	83.08	0	64.8	30 - 150	50.61	6.21	30
Dicamba	62.27	3.3	83.08	0	75.0	40 - 150	55.92	10.7	30
Dichlorprop	49.11	6.6	83.08	0	59.1	40 - 150	42.5	14.4	30
MCPA	5020	660	8308	0	60.4	40 - 150	4406	13	30
MCPP	6173	660	8308	0	74.3	40 - 150	5413	13.1	30
Surr: DCAA	100.1	0	166.2	0	60.2	30 - 150	88.77	12	30

The following samples were analyzed in this batch: HS18030481-01 HS18030481-02 HS18030481-03 HS18030481-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** San Antonio Testing Laboratory, Inc.  
**Project:** 1803095  
**WorkOrder:** HS18030481

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<b>Unit Reported</b>	<b>Description</b>
mg/Kg	Milligrams per Kilogram

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2017-088	31-Aug-2018
Texas	T104704231-17-19	30-Apr-2018
North Carolina	624-2018	31-Dec-2018

**Sample Receipt Checklist**

Client Name: San Antonio Testing  
 Work Order: HS18030481

Date/Time Received: **08-Mar-2018 12:05**  
 Received by: **JRM**

Checklist completed by: Raegen Giga 9-Mar-2018 Reviewed by: Corey Grandits 14-Mar-2018  
 eSignature Date eSignature Date

Matrices: **soil** Carrier name: **UPS**

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- TX1005 solids received in hermetically sealed vials? Yes  No  N/A
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s): 2.7c/3.1c uc/c IR 30

Cooler(s)/Kit(s): Client Cooler

Date/Time sample(s) sent to storage: 03/09/2018 17:10

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

**CHAIN-OF-CUSTODY**

REPORT TO: **INV**

COMPANY: **SATL** COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

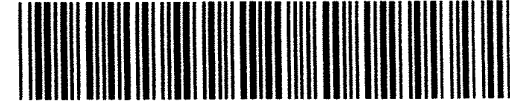
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ CITY: \_\_\_\_\_

ATTN: **Amel London** PHONE: **210-229-9920** (FAX): \_\_\_\_\_

REQUESTED TURNAROUND TIME IN BUSINESS DAYS & SURCHARGE:   
 7-10 Days REG  5 Days +25%  4 Days +50%  3 Days +75%   
 2 Days +100%  Next Day +150%  SAME DAY WHEN POSSIBLE +300%

**HS18030481**

San Antonio Testing Laboratory, Inc.  
 1803095



PROJECT NAME/LOCATION/SITE				ANALYSIS REQUESTED													REMARKS																																				
PROJECT NO.				TEMP. I.R. GUN #	SAMPLE TEMPERATURE WITHIN COMPLIANCE (> 0°C ≤ 6°C) <input type="checkbox"/> YES <input type="checkbox"/> NO					INITIAL TO AUTHORIZE BULK ANALYSIS <input type="checkbox"/> YES <input type="checkbox"/> NO				IF NO, INITIAL HERE TO AUTHORIZE ANALYSIS																																							
SAMPLED BY				TEMP. ON RECP.	COND. OF SAMPLE				TRRP 13 <input type="checkbox"/> YES <input type="checkbox"/> NO	LPST PCLS <input type="checkbox"/>																																											
SAMPLER NUMBER	COLLECTED DATE	COLLECTED TIME	MATRIX										CONTAINER NUMBER	CONTAINER SAMPLER SIZE	ANALYSIS REQUESTED	REMARKS																																					
			L	LI	LIQU	LIQUID	P	PA	PANT	PAINT	S	SO					SOLID	S	SL	SLO	SLOUGH	C	CO	COM	COMPOSITE	O	OT	OTHER																									
1	3/6/18	1350	X																										1803095-01 WEV (Area W Env)	4oz	4oz																						
2	3/6/18	1420																											1803095-02 WEV (Area W Env)																								
3	3/7/18	1030																											1803095-06 CEI (Area C Env)																								
4	3/7/18	1130																											1803095-07 CEI (Area C Env)																								

RELINQUISHED BY (SIGNATURE) <i>Amel London</i>	DATE / TIME <b>3/7/18</b>	RECEIVED BY (SIGNATURE)	DATE / TIME	RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)	DATE / TIME
RELINQUISHED BY (PRINT NAME) <b>Amel London</b>	DATE / TIME	RECEIVED BY (PRINT NAME) <i>Summer</i>	DATE / TIME <b>3/7/18 12:05</b>	RELINQUISHED BY (PRINT NAME)	DATE / TIME	RECEIVED BY (PRINT NAME)	DATE / TIME
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)	DATE / TIME	METHOD OF SHIPMENT		SUBCONTRACTED <input type="checkbox"/> YES <input type="checkbox"/> NO	
RELINQUISHED BY (PRINT NAME)	DATE / TIME	RECEIVED BY (PRINT NAME)	DATE / TIME	SAMPLED IN 5035 CONTAINERS <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A		CUSTODY SEAL IN PLACE & INTACT <input type="checkbox"/> YES <input type="checkbox"/> NO	



UPS Internet Shipping: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
3. **GETTING YOUR SHIPMENT TO UPS**  
**Customers with a Daily Pickup**  
 Your driver will pickup your shipment(s) as usual.

**Customers without a Daily Pickup**

Take your package to any location of The UPS Store®, UPS Access Point™ location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the 'Find Locations' Quick link at ups.com.  
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 203 NORTON ST  
 SAN ANTONIO, TX 78226

UPS Access Point™  
 THE UPS STORE  
 1801 MARTIN LUTHER KING DR  
 SAN ANTONIO, TX 78203

FOLD HERE


18 LBS

1 OF 1

MARCELA HAWK  
 210-225-9920  
 1610 S. LARDO STREET  
 SAN ANTONIO, TX 78207


SHIP TO:  
 NICOLE BROWN  
 713-266-1599  
 ALS ENVIRONMENTAL  
 10450 STANCLIFF ROAD, SUITE 210  
 HOUSTON TX 77099


**TX 774 9-08**



**UPS GROUND**

TRACKING #: 1Z 785 26E 03 9509 4423





UPS 30.0.32. WNTN959 97.0A. 01./2018

BILLING: P/P

*Client Cooler*

**MAR 08 2018**